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भारत सरकार, गृह मंत्रालय/Government of India, Ministry of Home Affairs

महानिदेशालय/Directorate General

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दिनांक, 27 Dec, 2019

REQUEST FOR EXPRESSION OF INTEREST

It is to inform that NDRF intends to procure Mobile Water Purifications System (Vehicle Mounted) for which draft technical specification has been prepared through a detailed BOOs which is enclosed here with as appendix-A.

Therefore, all the interested vendors/manufacturers are hereby invited to submit their comments/ suggestion on the draft technical specifications to this HQ by 25 Jan, 2020 against this expression of interest for further course of action.

Encl: As above.

(A.K. Tiwari)
Commandant (NDRR)
HQ NDRF
कमाण्डेन्ट (एन.डी.आर.आर.)
Commandant (NDRR)
मुख्यालय रा. आ. मो. बल, नई दिल्ली
HQ NDRF New Delhi

To,

The In-charge, IT Cell, for uploading the same on NDRF website.

MOBILE WATER TREATMENT PLANT (VEHICLE MOUNTED)

TECHNICAL SPECIFICATIONS:-

FOR INTAKE UNIT OF THE PLANT

General Performance		
Anchor Unit		
Float	Bright red 10kg displacement	
Float pressure rate	0.3 bar	
Anchor rope length	7 m	
Anchor type	Collapsible 2.5 kg	
Hose		
Type	Transparent	
Length	25m	
Pressure Rate	8-(-0.7)bar	
Manual Priming Pump		
Type	Positive displacement	
Operation	Manual- Hand	
Maximum Flow rate	2.7m3/h	
Self –Priming Pump		
Type	Positive displacement	
Operation	12 VDC	
Maximum flow rate	2.3m3/h (per unit) 4.6 m3/h total flow	

FOR FRESH WATER SUPPLY UNIT OF THE PLANT

GENERAL PERFORMANCE	
CHLORINE REACTOR	
Type of Additive	Calcium Hypochlorite
Concentration of the Solution	90%
Dosage	As per required by the supply into the storage tank
Flexible buffer storage tank	
Type	Double Jacket Bladder
Volume	3000 Ltrs
Inlet/Outer	1" Camlock type connection
Self- Priming Pump	
Type	Positive displacement
Operation	12VDC
Maximum Flow rate	1.0m3/h
Maximum Pressure	3.5 bar
Activate carbon filter	
Type	Cartridge 20"x4"
Filtration grade	5 Micron
Maximum Flow	2.0m3/h
Hose	
Type	Transparent 0.75" spiral flex
Length	20m
Pressure Plate	8-(-0.7) bar

CONTROL SYSTEMS

GENERAL PERFORMANCE	
Architecture	Entire system combine vehicle & treatment unit
Voltage	12-14.5 VDC
Current Consumption (Movement)	Max 35 Amp
Current Consumption (Treatment)	Max 65 Amp
Sensors type	NPN
Storage Temperature	-20°C-70°C
Ambient operating temperature	0°C-55°C
Vibration Resistant	MIL STD 810 C, Method 514.2
Shock Resistant	MIL STD 810C Method 516.2
Protection Class	IP66, Type 2 and 4X
OPERATOR INTERFACE	
Control Panels (Rear & Cabin)	
Display type	TFT Color 64K LED Back light
Active Display Area	7" diagonal – front 4.3" diagonal - rear
Resolution	800x480, WVGA-Front, 480x272-Rear
Process Instrumentation	
Type	Stand alone analyzers, transmit to main control
Measurements	PH, Conductivity, free Chlorine, Turbidity
Physical Instrumentation (Analog)	
Type	Transmitter, Analog signal to main Control
Measurements	Pressure, level, Flow
Physical Instrumentation	
Type	Stand Alone Gauges
Measurements	Pressure (Illuminated), flow)
COMMUNICATION	
Internal Communication	
Ethernet	10/100 Mbit
USB	2XHost (V 2.0, Max 500 m A)
Serial	3 x RS-232/RS-485/RS-422
Wi Fi	10 m bit
External Communication	
Internet	Via GPRS Cellular Via RJ-45 Port
Cloud	VPN Reality – SCADA Protocol

In addition to the above specification, the B.O.O also recommends the followings.

A)   There should be a trolley / carrier with ramp so that when required the plant could be loaded/unloaded smoothly as per requirement.

Or

The structure of the vehicles carrying the plant should be such as a 3/5 tonner vehicle for swift / smooth movement of the plant in disaster affected area / required locations.

B)   There should be contract of free service of at least 5 years with the firm supplying the plant for the defect/breakage of ordinary nature.

C)   The parts of the plant should be sturdy / non breakable Eg. **self priming pump** is such a part that is made of stainless steel & Rubber which is very delicate but requires frequent handling for installation. (And the frequent handling makes the part break easily.) Hence, this aspect is required to be fulfilled.