

ANNEXURE-11

DOC. TITLE :	BOQ FOR WATER SPRAY SYSTEM
PROJECT:	
CUSTOMER:	
CONSULTANT:	
PACKAGE :	
VENDOR :	
VENDOR PO :	
Doc. No. :	
Rev No. :	
Date:	

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Format of HVWS system is attached.
Bidder to follow the same formats for MVWS system also

SECTION-1.1																				
BOQ OF MAIN COMPONENTS OF HVWS SYSTEM																				
DRAWING TITLE																	BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
																	(A)	(B)	C = (A+B)	
DRAWING STATUS			Approved	Approved	Approved	Approved	Approved	Approved	Not submitted	Approved	Approved	Approved	Approved	Approved	Approved					
Sl. No.	ITEM DESCRIPTION	UOM																		
1	ERW, MS (Galvanized) pipe as per IS:1239 Class B medium grade																			
1.1	150 NB	M																		
1.2	100 NB	M																		
1.3	80 NB	M																		
1.4	65 NB	M																		
1.5	50 NB	M																		
1.6	40 NB	M																		
1.7	32 NB	M																		
1.8	25 NB	M																		
2	ERW, MS black pipe as per IS:1239 Class B medium grade																			
2.1	80 NB	M																		
2.2	65 NB	M																		
2.3	50 NB	M																		
2.4	40 NB	M																		
2.5	25 NB	M																		
3	Cast Iron Rising Spindle Type Gate Valve - IS : 14846																			
3.1	150 NB	No.																		
3.2	100 NB	No.																		
3.3	80 NB	No.																		
4	Cast Iron Wafer Type Butterfly Valves as per BS :5155																			

BOQ OF MAIN COMPONENTS OF HVWS SYSTEM

DRAWING TITLE																	BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
																	(A)	(B)	C = (A+B)	
DRAWING STATUS			Approved	Approved	Approved	Approved	Approved	Approved	Not submitted	Approved	Approved	Approved	Approved	Approved	Approved					
4.1	150 NB	No.																		
4.2	100 NB	No.																		
4.3	80 NB	No.																		
5	Cast Iron Deluge Valve (Wet Pilot Actuated) complete with necessary Trims,Water Motor gong																			
5.1	150 NB	No.																		
5.2	100 NB	No.																		
5.3	80 NB	No.																		
6	MS Y Strainer with SS mesh																			
6.1	150 NB	No.																		
6.2	100 NB	No.																		
6.3	80 NB	No.																		
7	HVW SPRAY NOZZLE with Strainer(SS Construction)																			
7.1	K-23 Angle - 120	No.																		
7.2	K-26 Angle - 100	No.																		
7.3	K-42 Angle - 115	No.																		
8	Q. B . Detector 79 degree	No.																		
9	Pressure Switch with root valve	No.																		
10	Limit Switch	No.																		
11	15 NB Solenoid Valve	No.																		
12	DV Control Panel	Nos																		
13	2 C x1.5 mm2 Armoured Control Cabling As per IS:1554 Part 1)	M																		
14	2 C x2.5 mm2 Armoured Control Cabling As per IS:1554 Part 1)	M																		
15	SS Orifice Plate																			
15.1	150 NB	No.																		
15.2	100 NB	No.																		
15.3	80 NB	No.																		
16	Cabling Accessories																			
16.1	Gland (2 Nos for each cable)	Nos.																		
16.2	Lugs (4 Nos for each cable)	Nos.																		

BOQ OF MAIN COMPONENTS OF HWS SYSTEM									
DRAWING TITLE	DRAWING STATUS	Remarks on Drawings							
	Approved								
	Approved								
	Approved								
	Approved								
	Approved								
	Approved								
	Approved								
	Not submitted								
	Approved								
	Approved								
	Approved								
	Approved								
	Approved								
	Approved								
			(A)	BOQ as per finalised drawings					
			(B)	Estimated BOQ in balance drawings					
			C = (A+B)	Total BOQ					
				Remarks					

SECTION-1.2																				
BOQ FOR PIPE FITTINGS FOR HVWS SYSTEM																				
Drawing Title																	BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
Drawing Status			Approved	Approved	Approved	Approved	Approved	Approved	Not submitted	Approved	Approved	Approved	Approved	Approved	Approved	(A)	(B)	C = (A+B)		
Sl. No.	ITEM DESCRIPTION	UOM																		
1	G.I. TEE (THREADED)																			
1.1	50NB EQ	NOS																		
1.2	50X50X40	NOS																		
1.3	50X50X32	NOS																		
1.4	50X50X25	NOS																		
1.5	50X50X20	NOS																		
1.6	40NB EQ	NOS																		
1.7	40X40X25	NOS																		
1.8	40X40X20	NOS																		
1.9	32NB EQ	NOS																		
1.10	25X25X20	NOS																		
1.11	25NB EQ	Nos																		
1.12	32X32X25	Nos																		
1.13	32X32X20	Nos																		
1.14	65NB EQ	Nos																		
1.15	65X65X50	Nos																		
1.16	65X65X40	Nos																		
2	M.S. TEE (THREADED)																			
2.1	25NB EQ	NOS																		
3	G.I. ELBOW (THREADED) (90 DEG.)																			

BOQ FOR PIPE FITTINGS FOR HVWS SYSTEM																				
Drawing Title																	BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
																	(A)	(B)	C = (A+B)	
Drawing Status			Approved	Approved	Approved	Approved	Approved	Approved	Not submitted	Approved	Approved	Approved	Approved	Approved	Approved					
3.1	50NB	NOS																		
3.2	40NB	NOS																		
3.3	32NB	NOS																		
3.4	25NB	NOS																		
4	G.I. ELBOW (WELDABLE) (90 DEG.)	NOS																		
4.1	150NB	NOS																		
4.2	100NB	NOS																		
4.3	80NB	NOS																		
4.4	65NB	NOS																		
5	M.S. ELBOW (THREADED) (90 DEG.)																			
5.1	25NB	NOS																		
6	M.S. ELBOW (WELDABLE) (90 DEG.)																			
6.1	150NB	NOS																		
6.2	100NB	NOS																		
6.3	80NB	NOS																		
7	G.I. ELBOW (THREADED) (45 DEG.)																			
7.1	50NB	NOS																		
7.2	40NB	Nos																		
7.3	32NB	Nos																		
7.4	25NB	Nos																		
8	G.I. ELBOW (WELDABLE) (45 DEG.)																			
8.1	100NB	NOS																		
8.2	80NB	NOS																		

BOQ FOR PIPE FITTINGS FOR HVWS SYSTEM																					
Drawing Title																		BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
																		(A)	(B)	C = (A+B)	
Drawing Status			Approved	Approved	Approved	Approved	Approved	Approved	Approved	Not submitted	Approved	Approved	Approved	Approved	Approved	Approved					
8.3	50NB	NOS																			
8.4	32NB	NOS																			
9	M.S. ELBOW (THREADED) (45 DEG.)																				
9.1	25NB	NOS																			
10	G.I. REDUCING ELBOW (THREADED)(90 DEG.)																				
10.1	25X20	NOS																			
10.2	32x20	NOS																			
11	G.I. REDUCER (THREADED)																				
11.1	50X40	NOS																			
11.2	50X32	NOS																			
11.3	50X25	NOS																			
11.4	40X25	NOS																			
11.5	25X20	NOS																			
12	G.I. REDUCER (WELDABLE)																				
12.1	150X100	NOS																			
12.2	100X80	NOS																			
12.3	100X65	NOS																			
12.4	100X50	NOS																			
12.5	100X40	NOS																			
12.6	80X50	NOS																			
12.7	65X50	NOS																			
12.8	65X40	NOS																			
13	M.S. REDUCER(THREADED)																				
13.1	25X15	NOS																			
14	G.I SOCKET (ONE SIDE THREADED & ONE SIDE WELDABLE)																				
14.1	50NB	NOS																			
14.2	40NB	NOS																			
14.3	32NB	NOS																			

BOQ FOR PIPE FITTINGS FOR HVWS SYSTEM																				
Drawing Title																	BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
																	(A)	(B)	C = (A+B)	
Drawing Status			Approved	Approved	Approved	Approved	Approved	Approved	Not submitted	Approved	Approved	Approved	Approved	Approved	Approved	Approved				
14.4	25NB	NOS																		
14.5	20NB	NOS																		
15	MS UNION																			
15.1	25NB	NOS																		
16	G.I. TEE (WELDABLE)																			
16.1	150NB	Nos																		
16.2	100NB	Nos																		
16.3	80NB	Nos																		
16.4	65NB	Nos																		
	Remarks on Drawings																			

SECTION-1.3																				
BOQ FOR FLANGES, GASKETS AND FASTENERS FOR HVWS SYSTEM																				
Drawing Title																	BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
																	(A)	(B)	C = (A+B)	
Drawing Status																				
Sl. No.	ITEM DESCRIPTION		UOM																	
1	G.I FLANGE																			
1.1	150NB		NOS																	
1.2	100NB		NOS																	
1.3	80NB		NOS																	
1.4	65NB		NOS																	
1.5	50NB		NOS																	
1.6	40NB		NOS																	
1.7	32NB		NOS																	
1.8	25NB		NOS																	
2	M.S. FLANGE																			
2.1	150NB		NOS																	
2.2	100NB		NOS																	
2.3	80NB		NOS																	
2.4	25NB		NOS																	
3	GASKET																			
3.1	150NB		NOS																	
3.2	100NB		NOS																	

Drawing Title																	BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
3.3	80NB	NOS																		
3.4	65NB	NOS																		
3.5	50NB	NOS																		
3.6	40NB	NOS																		
3.7	32NB	NOS																		
3.8	25NB	NOS																		
4	NUTS & BOLTS WITH WASHER	NOS																		
4.1	M20 X 90 Long (150NB PIPE) (8 HOLES)	NOS																		
4.2	M16 X 90 Long (100NB PIPE) (8 HOLES)	NOS																		
4.3	M16 X 85 Long (80NB PIPE) (4 HOLES)	NOS																		
4.4	M16 X 75 Long (65NB PIPE) (4 HOLES)	NOS																		
4.5	M16 X 70 Long (50NB PIPE) (4 HOLES)	NOS																		
4.6	M12 X 65 Long (40NB PIPE) (4 HOLES)	NOS																		
4.7	M12 X 65 Long (32NB PIPE) (4 HOLES)	NOS																		
4.8	M12 X 55 Long (25NB PIPE) (4 HOLES)	NOS																		
4.9	M12 X 50 Long (FOR PYLON PIPE) (4 HOLES)	NOS																		
5	STUD & BOLTS WITH WASHER																			
5.1	M20 X 150 Long (150NB PIPE) (8 HOLES)	NOS																		
5.2	M16 X 140 Long (100NB PIPE) (8 HOLES)	NOS																		
5.3	M16 X 130 Long (80NB PIPE)	NOS																		
6	ANCHOR FASTENER																			
6.1	M16X100	NOS																		
6.2	M10X100	NOS																		
6.3	M12X150	NOS																		
7	M.S. BLIND FLANGE																			
7.1	25NB	Nos																		
8	G.I BLIND FLANGE																			
8.1	150NB	Nos																		

Drawing Title																		BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
8.2	100NB	Nos																			
8.3	80NB	Nos																			
8.4	65NB	Nos																			
8.5	50NB	Nos																			
8.6	40NB	Nos																			
8.7	32NB	Nos																			
8.8	25NB	Nos																			

SECTION-1.4

BOQ FOR STRUCTURAL STEEL FOR SUPPORTS FOR HVWS SYSTEM

Drawing Title																BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Weight (Kg)	Remarks
																(A)	(B)	C = (A+B)		
Drawing Status																				
Sl. No.	ITEM DESCRIPTION	UOM																		
1	STRUCTURALS																			
1.1	ISMC150	Mtr.																		
1.2	ISMC100	Mtr.																		
1.3	ISMC75	Mtr.																		
1.4	ISA75X75X6	Mtr.																		
1.5	ISA65X65X8	Mtr.																		
1.6	ISA50X50X6	Mtr.																		
1.7	ISA35X35X6	Mtr.																		
1.8	ISA25X25X6	Mtr.																		
1.9	ISA40X40X6																			
2	MS PLATE																			
2.1	600X300X10	NOS																		
2.2	350x250x6	NOS																		
2.3	250X250X10	NOS																		
2.4	200X200X8	NOS																		
2.5	200X200X6	NOS																		
2.6	150X150X6	NOS																		
2.7	130X130X6	NOS																		
2.8	100X100X5	NOS																		
	Remarks on Drawings																			

SECTION-1.5																				
BOQ FOR PIPE CLAMPS FOR SUPPORTS FOR HVWS SYSTEM																				
Drawing Title																	BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
																	(A)	(B)	C = (A+B)	
Drawing Status																				
Sl. No.	ITEM DESCRIPTION		UOM																	
1.0	`U' BOLTS																			
1.1	12ϕ FOR 150NB		NOS																	
1.2	10ϕ FOR 100NB		NOS																	
1.3	10ϕ FOR 80NB		NOS																	
1.4	8ϕ FOR 65NB		NOS																	
1.5	8ϕ FOR 50NB		NOS																	
1.6	6ϕ FOR 40NB		NOS																	
1.7	6ϕ FOR 32NB		NOS																	
1.8	6ϕ FOR 25NB		NOS																	

SECTION-1.6						
BOQ FOR PAINTS & PRIMERS FOR SUPPORTS FOR HVWS SYSTEM						
Paints & Primer are linked to the Total BOQ of pipes in Section 1.1 of HVWS system			BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
Sl. No.	ITEM DESCRIPTION	UOM				
1	Paints & Primer for GI Pipes					
1.1	Finish Paint qty (Ltr) (2 coat with 50 micron DFT each coat)	Liters	0	0	0	
1.2	Thinner in Ltr (15% of total)	Liters	0	0	0	
1.3	Primer qty (Ltr) (2 coat with 75 micron DFT total)	Liters	0	0	0	
1.4	Thinner in Ltr (15% of total)	Liters	0	0	0	
1.5	Intermdtiate qty (Ltr) (1 coat with 100 micron DFT total)	Liters	0	0	0	
1.6	Thinner in Ltr (15% of total)	Liters	0	0	0	
2	Paints & Primer for ERW, MS black pipe					
2.1	Finish Paint qty (Ltr) (2 coat with 50 micron DFT each coat)	Liters	0	0	0	
2.2	Thinner in Ltr (15% of total)	Liters	0	0	0	
2.3	Primer qty (Ltr) (2 coat with 75 micron DFT total)	Liters	0	0	0	
2.4	Thinner in Ltr (15% of total)	Liters	0	0	0	
2.5	Intermdtiate qty (Ltr) (1 coat with 100 micron DFT total)	Liters	0	0	0	
2.6	Thinner in Ltr (15% of total)	Liters	0	0	0	

SECTION-3						
BOQ FOR INSTRUMENT HOOK UP PACKAGE						
			BOQ as per finalised drawings	Estimated BOQ in balance drawings	Total BOQ	Remarks
			(A)	(B)	C = (A+B)	
Sl. No.	ITEM DESCRIPTION	UOM				
a)	WATER SPRAY SYSTEM(HVWS)					
	All instruments shall be listed					
<u>b)</u>	WATER SPRAY SYSTEM(MVWS)					
	All instruments shall be listed					