

ANNEXURE-13

BOQ FOR INERT GAS EXTINGUISHING SYSTEM										
Sl.No.	Drawing Title	Unit	P&ID of IGES	Piping Layout of IGES	Isometric View of IGES	GA of Inergen cylinder storage room & supporting arrangement	GA of Cylinder Manifold	Pressure Vent Location Location Layout	Electrical Cabling Layout	TOTAL BOQ
	Vendor Documet No.									
	Drawing Approval status (By BHEL)									
	Remarks									
1.0	Inergen CYLINDER -300 BAR, CAPACITY. 140 LTRS.	Nos.								
2.0	LABEL FOR140 LTRS CYLINDER	Nos.								0
3.0	PNEUMATIC VALVE (INCLUDED IN CYLN. ASSEMBLY)	Nos.								0
4.0	CHECK VALVE 3/4"NPT X 1/2"BSP	Nos.								0
5.0	CONTACT GAUGE UNIT	Nos.								0
6.0	DISCHARGE HOSE 1/2" X 400 LG.	Nos.								0
7.0	NON RETURN VALVE 1/4 inch	Nos.								0
8.0	1/4 INCH CROSS FOR ACTUATION LINE	Nos.								0
9.0	HI-FLEX. HOSE FOR PILOT 1/4" X 365 Length.	Nos.								0
10.0	HI FLEX HOSE 1/4" X 500MM	Nos.								0
11.0	HI FLEX HOSE 1/4" X 400MM (1X90°)	Nos.								0
12.0	HI FLEX HOSE 1/4" X 700MM (1X90°)									0
13.0	PRESSURE GAUGE 1/2 NPT-300 Bar	Nos.								0
14.0	PRESSURE RELIEF DEVICE 300 BAR, BSP	Nos.								0
15.0	RELEASE UNIT 300 BAR(Automatic & Manual Release)	Nos.								0
16.0	1/4 Inch TEE PIECE FOR ACTUATOR LINE	Nos.								0
17.0	BALL VALVE, 1 1/2 INCH (DIVERTER VALVE) FE - NPT	Nos.								0
18.0	HANDLE FOR 1 1/2 INCH BALL VALVE	Nos.								0
19.0	BALL VALVE, 1 INCH (DIVERTER VALVE) FE - NPT	Nos.								0
20.0	HANDLE FOR 1 INCH BALL VALVE	Nos.								0

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	Drawing Approval status (By BHEL)									
	100 NB	Mtrs.								0
40.2	END CAP-100 NB	Nos.								0
40.3	CS FLANGES-100 NB	Nos.								0
40.4	Full COUPLINGS-3/4 NPT	Nos.								0
40.5	Gaskets	Nos.								0
40.6	M 36 x 275 mm long stud &nuts for 100 NB Flange 2500#									0
41.0	Piping from Manifold to Pilot manifold									
41.1	CS ASTM A 106 GR B SCH.XXS									
	100 NB	Mtrs.								0
42.0	Fittings Details at Cylinder Room									
42.1	Elbows-100 NB	Nos.								0
42.2	Equal Tee-100 NB	Nos.								0
42.3	END CAP-100 NB	Nos.								0
42.4	CS FLANGES-100 NB	Nos.								0
42.5	Gaskets	Nos.								0
42.6	M 36 x 275 mm long stud &nuts for 100 NB	Nos.								0
42.7	Full COUPLINGS-3/4 NPT	Nos.								0
42.8	U-Bolts-100 NB	Nos.								0
43.0	Cylinder supporting Strecturals									
43.1	ISMC-150 x 75 x 6	Mtrs.								0
43.2	Angle-75x75x6	Mtrs.								0
43.3	Square Plate- 250x150x10	Nos.								0
43.4	Base Square Plate-300x75x6	Nos.								0
43.5	Anchor fastener -M10x75	Nos.								0
43.6	Stiffner-Square Plate-200x200x6	Nos.								0
43.7	Bolts &nuts	Nos.								0
43.8	U-CLAMP-100 NB	Nos.								0
43.9	Angle-(Cylinder Bracket)-ISA-75x75x6									0
44.0	DRV Manifold supporting Strecturals									
44.1	ISMC-100x40x6	Mtrs.								0
44.2	Angle-	Mtrs.								0
44.3	Square Plate	Nos.								
44.4	Base Square Plate-	Nos.								0

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	Drawing Approval status (By BHEL)									
44.5	Anchor fastener	Nos.								0
44.6	Stiffner-Square Plate	Nos.								0
44.7	U-Bolts-100 NB	Nos.								0
45.0	Floor Structural Support									
45.1	ISA-75x75x6									0
45.2	Square Plate-150x150x6	Nos.								0
45.3	Anchor Fastener-M10x75	Nos.								0
46.0	Distripution Piping(Downstream piping from Restrictor)									
46.1	CS ASTM A 106 GR B SCH.40									
46.1.1	100NB	Mtrs.								0
46.1.2	80NB	Mtrs.								0
46.1.3	65NB	Mtrs.								0
46.1.4	50NB	Mtrs.								0
46.1.5	40NB	Mtrs.								0
46.2	CS Fittings for Piping at TG Building 17 Mtr									
46.2.1	Equal Tee									
46.2.1.1	100 NB ,B/W	Nos.								0
46.2.1.2	80 NB ,B/W	Nos.								0
46.2.1.3	65 NB B/W	Nos.								0
46.2.1.4	40 NB ,S/W	Nos.								0
46.2.2	Unequal Tee									
46.2.2.1	100X100X80NB, B/W	Nos.								0
46.2.2.2	100X100X40NB, B/W	Nos.								0
46.2.2.3	80X80X50NB, B/W	Nos.								0
46.2.2.4	80X80X40NB, B/W	Nos.								0
46.2.2.5	65x 65 x 40 NB,S/W	Nos.								0
46.2.2.6	50 x 50 x 40 NB,S/W	Nos.								0
46.2.3	Elbow-90° Elbow									
46.2.3.1	100NB B/W	Nos.								0
46.2.3.2	80NB B/W	Nos.								0
46.2.3.3	65NB S/W	Nos.								0
46.2.3.4	40NB S/W	Nos.								0

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	Drawing Approval status (By BHEL)									
46.2.4	REDUCING ELBOW									
46.2.4.1	100X80NB B/W	Nos.								0
46.2.5	Concentric Reducer									
46.2.5.1	100X80NB B/W	Nos.								0
46.2.5.2	80x65NB B/W	Nos.								0
46.2.5.3	80x50NB B/W	Nos.								0
46.2.5.4	65X50NB S/W	Nos.								0
46.2.5.5	65X40NB S/W	Nos.								0
46.2.5.6	50X40NB S/W	Nos.								0
47.0	<u>Piping Supports for Downstream Piping(S-1 to S-7- 94 Nos)</u>									
47.1	ISMC 100 x 50 x 5	Mtrs.								0
47.2	ISA 50 x 50 x5	Mtrs.								0
47.3	Square Plate-200 x 100 x 6 mm thick	Nos.								0
47.4	Anchor Fasteners	Nos.								0
47.5	M12 x 115 mm long	Nos.								0
47.6	M10 x 75 mm long	Nos.								0
47.7	U Bolts ,Double nuts with Washers									
47.7.1	M12 x 100 NB	Nos.								0
47.7.2	M10 x 80 NB	Nos.								0
47.7.3	M8 x 65 NB	Nos.								0
47.7.4	M8 x 50 NB	Nos.								0
47.7.5	M8 x 40 NB	Nos.								0
48.0	Full Coupling-1 1/2" (40 NB) for Nozzle fixing	Nos.								0