

PS GSG_73, Rev-01		Specifications for SF6 GAS AND CYLINDERS	Date:	24-12-2020
			Product:	General
			Sheet:	1/2
1.0	1.1	GENERAL DESCRIPTION: This specification governs the technical and statutory requirements of SF6 gas filled and stored in cylinders.		
2.0		APPLICATION: For SF6 circuit breakers and Gas Insulated Power Equipments.		
3.0	3.1	COMPLIANCE WITH STANDARDS: SF6 Gas: SF6 (Sulphur Hexafluoride/sulfur Hexafluoride) gas shall conform to IEC: 60376 and IS -13072		
	3.2	Cylinder Valves: The valves fitted to the cylinders shall conform to ANSI: B57.1 or BS: 341 Part I or IS: 3224.		
4.0	4.1	TECHNICAL: Gas Cylinders & Valves: SF6 gas shall be supplied with NEW cylinders and valves manufactured and inspected by competent authority.		
	4.2	Cylinder Capacity: Preferred water capacity of the cylinders supplied shall be around 40 liters and weight of SF6 gas in each cylinder shall be approximately 50kg.		
	4.3	Filling Ratio: The filling ratio (The ratio of weight of liquefiable gas introduced in the cylinder to the weight of the water the cylinder will hold at 15 °C) shall be around 1.20.		
5.0		STATUTORY REQUIREMENTS: The chief Controller of Explosives, Department of Explosives, and Government of India are the statutory authority regulating the importation and use of SF6 gas cylinders. A license has to be obtained by the users from this Authority for importation and use of SF6 gas cylinders. Hence, the suppliers shall comply with the regulations of the above authority, as indicated in this specification and separately communicated from time to time.		
			Signature:	
			Date:	

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6.0		DOCUMENTS TO BE SUBMITTED WITH QUOTATION: In order to make a preliminary assessment as to whether the SF6 gas cylinders will meet the regulations of the Department of Explosives, the supplier shall submit a SAMPLE set of documents as listed below along with the quotation.		
	6.1	Specification to which the cylinders are manufactured and the name and address of the manufacturer and Inspecting Agency.		
	6.2	Record of chemical analysis of the material used for the cylinders.		
	6.3	Record of Physical tests of the material used for the cylinders.		
	6.4	Record of the Hydraulic stretch test conducted in respect of each cylinder.		
	6.5	Specifications to which the valves are manufactured.		
	6.6	Inspection agency's certificate pertaining to the valves giving results of chemical analysis, Physical tests of the material used for the valves etc.		
	6.7	Filler's certificate indicating filling ratio at which each cylinder has been filled.		
	6.8	Name and address of the manufacturer of SF6 gas and record of tests conducted to establish that the SF6 gas conforms to IEC 60376.		
	6.9	A statement in duplicate showing the serial number of the cylinders.		
7.0		In case the gas is imported by the local representative and he has complied with above regulations, the supplier shall submit a copy of above document for ready reference of BHEL prior to supply.		
8.0		MARKING : Identification Marking: Each cylinder shall be durably and legibly marked by stamping, engraving or similar process with the following, preferably at the valve end and off the cylindrical part. Other Markings: Each cylinder shall be marked by stamping, engraving or similar process with the following details: a) Manufacturer's mark. b) Inspection agency's mark c) Rotation No. (Serial No.) Other specification details as prescribed in the relevant standard.		
9.0		SHIPMENT : Cylinders can be shipped on the deck in conformance with shipping regulations.		
10.0		GUARANTEE: Against faulty material and workman ship		
			Signature:	
			Date:	