GAS TURBINE OR JET ENGINE

INSTRUCTIONS

Submit the data in this section once during the life of each gas turbine or jet engine unit. If a major change is made to a unit which significantly changes its characteristics, then resubmit this section with updated information.

For coded entries, a (9) is entered to indicate an alternative other than those specified. Whenever a (9) is entered, write the column number and the answer on the reverse side of the form.

If a copy of the original form is being submitted, make sure that it is legible.

Utility name: _____

Station name: _____

Unit name: _____

Data reporter: _____

Telephone number: _____

Date: _____

GAS TURBINE OR JET ENGINE

GENERAL DATA	COL. NO.	
	01	Utility identification number
	04	Unit identification number
3 1	07	Card code
	09	Columns 09 through 12 are blank
	13	Year unit first paralleled for load
	17	Month unit first paralleled for load
	19	Day unit first paralleled for load

GAS TURBINE OR JET ENGINE DATA

	21	Engine manufacturer - (1) Pratt & Whitney; (2) General Electric; (3) Westinghouse; (4) ABB Gas Turbine Power Division; (5) Rolls Royce; (6) Cooper Bessemer; (7) Worthington; (8) Allison; (9) Other
	21	Engine type - (1) Gas turbine single shaft; (2) Gas turbine split shaft; (3) Jet engine; (9) Other
	22	Engines, number per unit
	25	Expander turbines, number per unit if applicable
	26	Type expander, if applicable - (1) Single flow; (2) Double flow
	27	Cycle type - (1) Reheat; (2) Simple; (3) Regenerative; (4) Recuperative; (5) Intercooled; (6) Precooled; (7) Complex; (8) Compound; (9) Other
	28	Startup system - (1) Air; (2) Auxiliary motor; (3) Electric motor; (4) Natural gas; (5) Flow turbine; (6) Supercharging fan; (7) Hydraulic; (9) Other
	29	Startup type - (1) Automatic, on site; (2) Automatic, remote; (9) Other

GAS TURBINE OR JET ENGINE DATA (cont.)

	30	Type of Fuel(s) that will be used (see table of Fuel Codes, page E-124)
	32	Enter (1) if sound attenuators located at inlet
	33	Enter (1) if sound attenuators located at outlet
	34	Enter (1) if sound attenuators located in building enclosures
	35	Time for normal cold start to full load in seconds
	38	Time for emergency cold start to full load in seconds
	41	Black start capability - (1) Yes; (2) No
B	42	Columns 42 through 70 are blank
	71	Engine Model Number (MS 7001EA, W501AA, FT4A11, etc.)

POLLUTION CONTROL EQUIPMENT DATA

	01	Utility identification number
	04	Unit identification number
3 2	07	Card code
B	09	Columns 09 through 21 are blank

SELECTIVE NON-CATALYTIC REDUCTION SYSTEM (SNCR)

☐	22	SNCR reagent - (1) Ammonia; (2) Urea; (9) Other
☐	23	SNCR injector type - (1) Wall nozzle; (2) Lance; (9) Other
☐	24	SNCR injection equipment location - (1) Furnace; (2) Super-heater; (3) Economizer; (9) Other
☐☐☐	25	Number of SNCR injectors
☐	28	SNCR carrier gas type - (1) Steam; (2) Air; (9) Other
☐☐☐☐.☐	29	SNCR carrier gas total flow rate (thousands of lbs./hr.) i.e. 6,000,000 lbs./hr. enter 6000
☐☐☐☐	34	SNCR carrier gas pressure at nozzle (psi)
☐☐☐☐.☐	38	SNCR carrier gas nozzle exit velocity (thousands of ft./sec.)

SELECTIVE CATALYTIC REDUCTION SYSTEM (SCR)

☐	43	SCR reactor - (1) Separate; (2) In Duct
☐	44	SCR reagent - (1) Ammonia; (2) Urea; (9) Other
☐	45	SCR ammonia injection grid location - (1) Furnace; (2) Super-heater; (3) Economizer; (4) Zoned
☐	46	SCR duct configuration - (1) Flow straighteners; (2) Turning vanes; (3) Dampers
☐	47	SCR Catalyst Element Type (1) Plate; (2) Honeycomb; (9) Other
☐	48	SCR catalyst support material - (1) Stainless steel; (2) Carbon steel; (9) Other
☐	49	SCR catalytic material configuration - (1) Vertical; (2) Horizontal; (9) Other
☐☐☐☐.☐	50	SCR catalyst surface face area (thousands of square feet)
☐☐☐☐.☐	55	SCR catalyst volume (thousands of cubic feet)
☐☐	60	Number of SCR catalytic layers

SELECTIVE CATALYTIC REDUCTION SYSTEM (SCR) (cont.)

˜ □□□	62	SCR catalytic layer thickness (1/1000 inches)
□	65	SCR sootblower type - (1) Air; (2) Steam; (3) Both
□□	66	SCR sootblower manufacturer - (see table of Manufacturers - page E-125)

CATALYTIC AIR HEATERS (CAH)

□	68	CAH element type - (1) Laminar surface; (2) Turbulent surface; (9) Other
□	69	CAH catalyst material - (1) Titanium oxide; (2) Vanadium pentoxide; (3) Iron (II) oxide; (4) Molybdenum oxide; (9) Other
□	70	CAH catalyst support material - (1) Stainless steel; (2) Carbon steel; (9) Other
□	71	CAH catalyst material configuration - (1) Horizontal air shaft; (2) Vertical air shaft
□□˜□	72	CAH catalyst material total face area (thousands of square feet)
□□˜□	75	CAH catalyst material open face area (thousands of square feet)
˜ □□□	78	CAH catalyst material layer thickness (1/1000 inches)

GENERATOR DATA

□□□	01	Utility identification number
□□□	04	Unit identification number
3 3	07	Card code
■■■■■	09	Columns 09 through 13 are blank
□□	14	Manufacturer (see table of Manufacturers, page E-123)
□	16	Type - (1) Three-phase, 60-cycle; (9) Other
□□□˜□	13	Nameplate voltage to nearest one-tenth KV

GENERATOR DATA (cont.)

☐☐☐☐	21	Nameplate capability MVA, first shaft
☐☐☐☐	25	Speed in RPM, first shaft
☐☐☐☐	26	Nameplate capability MVA, second shaft if any
☐☐☐☐	33	Speed in RPM, second shaft if any
☐☐☐☐	37	Nameplate capability MVA, third shaft if any
☐☐☐☐	41	Speed in RPM, third shaft if any
☐☐	45	Nameplate power factor in percent
☐	47	Cooling medium, stator/rotor - (1) Air/air; (2) Hydrogen/ hydrogen; (3) Oil/hydrogen; (4) Water/hydrogen; (9) Other
☐	48	Cooling method, stator/rotor - (1) Intercooled/intercooled; (2) Conventional/conventional; (3) Intercooled/ conventional; (9) Other
☐☐	49	Hydrogen pressure in PSIG at nameplate, MVA, if applicable
☐	51	Number of exciters required by the unit for normal operation at rated output
☐	52	Type normal exciters - (1) Rotating DC generator; (2) Rotating alternator rectifier; (3) Static; (9) Other
☐	53	Type drive for normal exciters, if rotating - (1) Shaft direct; (2) Shaft gear; (3) Motor; (9) Other
☐	54	Number of spare exciters available to the unit
☐	55	Enter (1) if more than 50% of generator is outdoors

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

56 Unit Name