

Unit Design Data

Nuclear (Voluntary Reporting)

(Note: The NERC Board of Trustees approved the *GADS Task Force Report* ([dated July 20, 2011](#))ⁱ, which states that design data collection outside the required nine fields is solely voluntary. However, the GADS staff encourages that reporters report and update GADS design data frequently. This action can be completed by 1) sending in this form to gads@nerc.net. GADS staff encourages using the software for design entry and updating.

Instructions

Submit the data in this section once during the life of each nuclear 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, enter a (9) to indicate an alternative other than those specified. Whenever you enter a (9), write the column number and the answer on the reverse side of the form.

If submitting a copy of an original form, make sure that it is legible.

Utility name:

Station name:

Unit name:

Location of unit (State):

Energy Information Administration (EIA) Number:

Regional Entity:

Subregion:

Data reporter:

Telephone number:

Date:

GENERAL DATA

Col. No.

01 Utility identification number

04 Unit identification number

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

NUCLEAR REACTOR DATA

21 Manufacturer – (1) Westinghouse; (2) General Electric; (3) Babcock and Wilcox; (4) Combustion Engineering; (5) General Atomics; (9) Other

22 Type – (1) Pressurized (light) water (PWR); (2) Boiling (light) water (BWR); (3) CANDU; (9) Other

23 Nameplate capacity in MWt

27 Outlet temperature in F at nameplate capacity

31 Outlet pressure in PSIG at nameplate capacity

35 Reactor flow in thousands of pounds per hour at nameplate capacity

42 Secondary loop flow in thousands of pounds per hour at nameplate Capacity, if applicable

49 Number of primary loop or recirculating pumps

50 Primary loop or recirculating pump manufacturer – (1) Westinghouse; 2) Worthington; (3) Byron-Jackson; (4) Ingersoll-Rand; (9) Other

NUCLEAR REACTOR DATA (Continued)

- 51 Primary loop or recirculating pump type drives – (1) Motor variable speed; (2) Motor constant speed; (9) Other
- 52 Steam generator manufacturer, if applicable – (1) Westinghouse; (2) Combustion Engineering; (3) Babcock and Wilcox; (4) Foster Wheeler; (9) Other
- 53 Type of control rod drive – (1) Magnetic jack; (2) Hydraulic water; (3) Rack and pin; (9) Other
- 54 Control rod configuration – (1) Cruciform; (2) Rod cluster; (9) Other
- 55 Enter (1) if chemical shim is used
- 56 Initial weight of uranium in thousands of pounds
- 60 Highest initial enrichment to one-tenth percent
- 62 Fuel type – (1) U-235 oxide; (9) Other
- 63 Fuel cladding material – (1) Zirconium; (2) Stainless steel; (9) Other
- 64 Containment type – (1) Dry; (2) Pressure suppression; (9) Other

ARCHITECT/ENGINEERING DATA

- 65 Architect/Engineer – (1) All A/E work inhouse; (2) Burns & Roe; (3) Black & Veatch; (4) Bechtel; (5) Brown & Root; (6) Durham & Richardson; (7) Ebasco Services; (8) Gibbs & Hill; (9) Gilbert Associates; (10) Offshore Power Systems; (11) Ralph M Parsons; (12) Pioneer Services & Engineering; (13) Sargent & Lundy; (14) Stone & Webster; (15) United Engineers & Constructors; (99) Other
- 67 Columns 67 through 80 are blank

STEAM TURBINE DATA

<input type="text"/>	01	Utility identification number	
<input type="text"/>	04	Unit identification number	
<input type="text" value="2"/>	07	Card code	
<input type="text"/>	09	Columns 09 through 13 are blank	
<input type="text"/>	13	Manufacturer (see table of Manufacturers, page E-123)	
<input type="text"/>	16	Type – (1) Single cylinder; (2) Tandem compound; (3) Cross Compound; (4) Triple compound; (9) Other	
<input type="text"/>	16	Enter (1) if more than 50% of turbine is outdoors	
<input type="text"/>	17	Total nameplate capacity in MW	
<input type="text"/>	22	Main steam pressure in PSIG, full load at throttle	
<input type="text"/>	26	Main steam temperature in <input type="checkbox"/> F, full load at throttle	
<input type="text"/>	30	First reheat temperature in <input type="checkbox"/> F, if applicable	
<input type="text"/>	34	Second reheat temperature in <input type="checkbox"/> F, if applicable	
<input type="text"/>	38	Back pressure to nearest one-tenth inch of Hg for nameplate capacity and design water temperature	

CONDENSER DATA

<input type="text"/>	40	Manufacturer – (1) Foster Wheeler; (2) Ingersoll-Rand; (3) Westinghouse; (4) Yuba; (5) Worthington; (6) C. H. Wheeler; (9) Other
<input type="text"/>	41	Passes – (1) Single; (2) Double
<input type="text"/>	42	Number of shells
<input type="text"/>	43	Tube material – (1) Arsenical Admiralty; (2) Arsenical Aluminum Brass; (3) Stainless Steel; (4) Cupro-Nickel; (5) Aluminum Bronze; (6) Arsenical Phosphorized Copper; (9) Other
<input type="text"/>	44	Type cooling water – (1) Fresh; (2) Salt
<input type="text"/>	45	Cooling water origin – (1) River; (2) Lake; (3) Ocean or bay; (4) Cooling tower

CONDENSER DATA (Continued)

- 46 Number of condensate pumps
- 47 Condensate pump manufacturer – (1) Worthington; (2) Allis Chalmers; (3) Byron-Jackson; (4) DeLaval; (5) Ingersoll-Rand; (6) Fairbanks-Morse; (7) Pacific Pump; (9) Other
- 48 Number of circulating water pumps
- 49 Circulating water pump manufacturer – (1) Worthington; (2) Allis Chalmers; (3) Ingersoll-Rand; (4) Westinghouse; (5) Foster Wheeler; (9) Other

AUXILIARIES DATA

- 50 Number of secondary loop or single loop feed pumps required for normal operation at full load
- 51 Number of spare feed pumps which are approximately the same size as one normally used pump
- 52 Number of spare or startup feed pumps which are smaller than one normally used pump
- 53 Normal feed pump manufacturer – (1) Worthington; (2) DeLaval; (3) Ingersoll-Rand; (4) Byron-Jackson; (5) Pacific Pump; (9) Other
- 54 Normal feed pump type drive – (1) Motor; (2) Steam; (3) Shaft; (4) Motor gear; (5) Steam gear; (6) Shaft gear; (9) Other
- 55 Normal feed pump, enter (1) if hydraulic coupling(s) used
- 56 Normal feed pump maximum speed in RPM – (1) Under 2000; (2) 2000-2999; (3) 3000-3999; (4) 4000-4999; (5) 5000-5999; (6) 6000-6999; (7) 7000-7999; (8) 8000-8999; (9) 9000 plus
- 57 Number of feed water heaters on high side of feed pump
- 58 High pressure feed water heater manufacturer – (1) Foster Wheeler; (2) Worthington; (3) Westinghouse; (4) Yuba; (5) Baldwin-Lima-Hamilton; (6) Southwestern Engineering; (9) Other
- 59 Number of feed water heaters on low side of feed pump

AUXILIARIES DATA (Continued)

<input type="checkbox"/>	61	Low pressure feed water heater manufacturer – (1) Foster Wheeler; (2) Worthington; (3) Westinghouse; (4) Yuba; (5) Baldwin-Lima-Hamilton; (6) Southwestern Engineering; (9) Other
<input type="checkbox"/>	62	Computer system supplier, if applicable – (1) Westinghouse; (2) General Electric; (3) International Business Machines; (4) Leeds and Northrup; (5) Radio Corporation of America; (9) Other
<input type="checkbox"/>	63	Number of computer, if applicable – (1) Two computers for this unit only; (2) One computer for this unit only; (3) Two computers shared by one or more other units; (4) One computer shared by one or more other units; (9) Other
<input type="checkbox"/>	64	Computer system capability, if applicable – (1) Monitor only; (2) Monitor and control
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	65	Columns 65 through 80 are blank

GENERATOR DATA

<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	01	Utility identification number
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	04	Unit identification number
<input type="checkbox"/> 2 <input type="checkbox"/> 3	07	Card code
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	08	Columns 09 through 13 are blank
<input type="checkbox"/> <input type="checkbox"/>	14	Manufacturer (see table of Manufacturers, page E-123)
<input type="checkbox"/>	16	Type – (1) Three-phase, 60-cycle; (9) Other
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	17	Nameplate voltage to nearest one-tenth KV
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	21	Nameplate capability MVA, first shaft
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	25	Speed in RPM, first shaft
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	29	Nameplate capability MVA, second shaft if any
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	33	Speed in RPM, second shaft if any
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	37	Nameplate capability MVA, third shaft if any

GENERATOR DATA (Continued)

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|--|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 41 | Speed in RPM, third shaft if any | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> <input type="checkbox"/> | 45 | Nameplate power factor in percent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 47 | Cooling medium, stator/rotor – (1) Air/air; (2) Hydrogen/hydrogen; (3) Oil/hydrogen; (4) Water/hydrogen; (9) Other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 48 | Cooling method, stator/rotor – (1) Intercooled/intercooled; (2) Conventional/conventional; (3) Intercooled/conventional; (9) Other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> <input type="checkbox"/> | 49 | Hydrogen pressure in PSIG at nameplate MVA, if applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 51 | Number of exciters required by the unit for normal operation at rated output | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 52 | Type normal exciters – (1) Rotating DC generator; (2) Rotating alternator rectifier; (3) Static; (9) Other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 53 | Type drive for normal exciters, if rotating – (1) Shaft direct; (2) Shaft gear; (3) Motor; (9) Other | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 54 | Number of spare exciters available to the unit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 55 | Enter (1) if more than 50% of generator is outdoors | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 56 | Name of Unit (Columns 56-80) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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ⁱ http://www.nerc.com/pa/RAPA/gads/MandatoryGADS/Revised_Final_Draft_GADSTF_Recommendation_Report.pdf