ASME PTC 6-2004
(Revision of ASME PTC 6-1996)

Steam Turbines

Performance Test Codes

AN AMERICAN NATIONAL STANDARD

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Mechanical Engineers

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Erratum
to
ASME PTC 6-2004
Steam Turbines

On page 13, Table 3-1, first entry under second column is corrected by erratum to read "±3.0% of the absolute pressure." See revised table on the overleaf.

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Table 3-1 Permissible Deviation of Variables

Variable	Permissible Deviation for the Average of the Test Conditions from Design or Rated Conditions [Note (1)]	Permissible Fluctuations During Any Test Run [Note (2)]
Initial steam pressure	±3.0% of the absolute pressure	±0.25% of the absolute pressure or 5.0 psi (34.5 kPa), whichever is larger
Initial and reheat steam temperature	±15°F (8K) when superheat is 27°–50°F (15–30K); ±30°F (16K) when superheat is in excess of 50°F (30K)	±4°F (2K) when superheat is 27°–50°F (15–30K); ±7°F (4K) when superheat is in excess of 50°F (30K)
Initial steam quality	±0.5 percentage points of quality for turbines with wet throttle steam	±0.1 percentage points of quality for turbines with wet throttle steam
Primary flow	Not specified	Refer to para. 4-10.1
Secondary flows	±5.0% × (primary flow)/(secondary flow)	Same as (d) × (primary flow)/(secondary flow)
Pressure drop through fossil unit reheater	±50.0%	
Extraction pressures	±5.0%	
Extraction flows [Note (3)]	±5.0%	
Temperature of feed water leaving final heater	±10°F (6K)	
Exhaust pressure [Note (4)]	±0.05 psi (0.34 kPa) or ±2.5% of the absolute pressure, whichever is larger	±0.02 psi (0.14 kPa) or ±1.0% of the absolute pressure, whichever is larger
Load	Refer to para. 3-13.5	±0.25%
Voltage	±5.0%	
Power factor	Not specified	±1.0%
Speed	±5.0%	±0.25%
Aggregate isentropic enthalpy drop of anyone of the sections of an automatic-extraction turbine	±10.0%	

NOTES:

(1) In any event, the manufacturer's allowable variations in pressure temperature and speed are not to be exceeded, unless specifically agreed to before the test.

(2) Fluctuations would be indicated by scatter in the data (refer to para. 3-9.2).

(3) When steam is extracted for feedwater heaters, the extraction pressures (which are fixed by the turbine design and flow conditions) may deviate from expected values by a few percent. This normally has a negligible effect upon the overall performance. It shall be ascertained that such deviations that do exist are not due to malfunctioning of feedwater heaters. If large deviations persist, agreement must be reached as to the course to be followed.

(4) If it is not practicable to obtain design or rated exhaust pressure, the test may be conducted by agreement at another exhaust pressure, and either party may require that the exhaust pressure correction curve be verified by test.

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