High Pressure Turbine Replacement- Proposed Design

	U1 Proposed Design Tests, Actual Cond Press,		
	U1 92% HP	U1 92 % HP	U1 92% HP
	VWO 6,750 kpp	VWO 910 MW	VWO 7,100 kpp
Gross Power (Mw)	**930.0**	910.0	971.5
NTCHR (Btu/kwh)	7,874	7,865	7,859
Throttle flow (kpph)	**6,750**	6,585	7,100
Throttle press (psia)	2,412.2	2,412.2	2,512.2
Throttle temp (°F)	1,000	1,000	1,000
Hot Reheat temp (°F)	1,000	1,000	1,000
Reheater flow (kpph)	5,437.5	5,288.1	5,691.2
% Reheater press drop (%)	6	6	6
Reheater duty (MBtu/h)	1,178	1,162	1,241
High Pressure Turbine			
Efficiency (%)	92	92	92
Wheel power (Mw)	297.6	294.6	311.0
% Total Wheel power	31.6	31.9	31.6
Section press drop (psi)	1,748.9	1,765.0	1,818.7
1st stg shell press (psia)	1,982.9	1,982.9	2,065.1
1st stg press drop (psi)	356.9	356.9	371.7
4th stg ext press (psia)	1,133.1	1,133.1	1,180.1
4th stg ext enthalpy (Btu/lb)	1,370.9	1,371.0	1,368.1
Exhaust press (psia)	590.9	574.8	618.1
Exhaust enthalpy (Btu/lb)	1,301.2	1,298.5	1,299.2
Intermediat Pressure Turbine			
Efficiency (%)	91.19	91.19	91.29
Wheel power (Mw)	281.2	273.6	294.2
% Total Wheel power	29.8	29.7	29.9
8th stg bowl press (psia)	544.29	529.53	569.35
Section press drop (psi)	417.03	405.61	436.44
Exhaust press (psia)	127.26	123.92	132.91
Exhaust enthalpy (Btu/lb)	1,338.4	1,338.8	1,337.7
Low Pressure Turbines			
Wheel power (Mw)	363.8	354.2	379.4
% Total Wheel power	38.6	38.4	38.5
LPA exhaust press ("hg)	3.87	3.78	4.1
LPB exhaust press ("hg)	2.89	2.83	3.03
LPC exhaust press ("hg)	2.70	2.64	2.82

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