HTR-PM MODEL MVS AND CVS

Variable Type	Variable Name	Physical significance	Design Value	Unit
Controlled Variables (CVs)	Reactor%d.nr	Relative nuclear power	0.75	-
	Reactor%d.T2	Inlet temperature of helium in the primary loop	506.43	K
	Reactor%d.P6	Outlet pressure of helium in the primary loop	6.94	MPa
	Reactor%d.G6	Flow rate of helium in the primary loop	70.98	kg/s
	Reactor%d.T6	Outlet temperature of high-temperature helium	1007.53	K
	Reactor%d.Tr	Core temperature	511.66	K
	SG%d.P1	Pressure of feedwater in the secondary loop	14.18	MPa
	SG%d.G1	Flow rate of feedwater in the secondary loop	68.30	kg/s
	SG%d.T1	Temperature of feedwater in the secondary loop	462.76	K
	SG%d.P7	Outlet pressure of superheated steam	13.90	MPa
	SG%d.G7	Flow rate of feedwater in the secondary loop	68.30	kg/s
	SG%d.T7	Outlet temperature of superheated steam	844.15	K
	SG%d.Pp1	Pressure of cold helium	6.94	MPa
	SG%d.Gp	Flow rate of cold helium	70.98	kg/s
	SG%d.Tp1	Temperature of cold helium	233.28	K
	SH.SteamHeader_Pso	Main steam pressure	13.24	MPa
	SH.SteamHeader_Tso	Main steam temperature	839.15	K
	SH.SteamHeader_Wsso	Main steam flow rate	136.59	kg/s
Manipulated Variables (MVs)	Reactor%d.GinDemand	Flow rate of helium in the primary loop	70.98	kg/s
	Reactor%d.ReactDemand	External reactivity	0.00148	-
	Pump%d.pumpG_GDemand	Flow rate of feedwater in the secondary loop	68.30	kg/s
	LinkSGtoSH_xgvDemand	Turbine valve opening (before turbine)	0.73	-