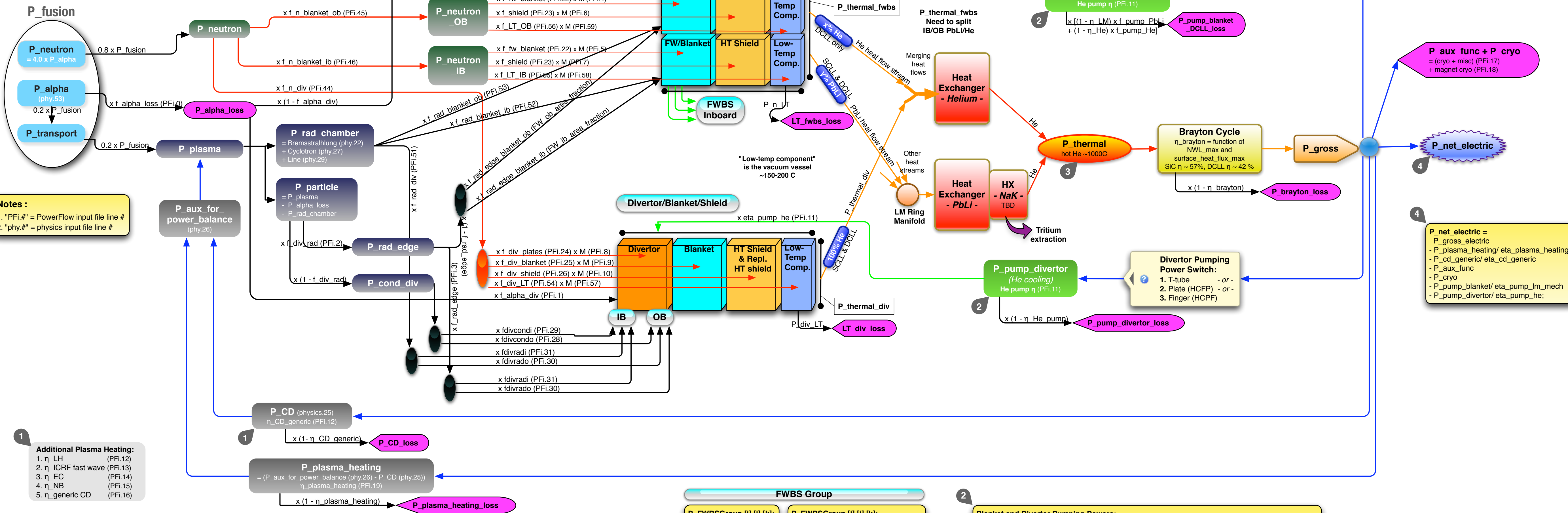


Power Flow V.5

Corresponding to ASC
ASC v.35, 2/2012, LCC



FWBS Group

P_FWBSGroup [i] [j] [k]:	P_FWBSGroup [i] [j] [k]:
i=0 [neutron]	000 [neutron] [fw_blanket] [outboard]
i=1 [condRad]	001 [neutron] [fw_blanket] [inboard]
j=0 [fw_blanket]	010 [neutron] [shield] [outboard]
j=1 [shield]	011 [neutron] [shield] [inboard]
k=0 [outboard]	100 [condRad] [fw_blanket] [outboard]
k=1 [inboard]	101 [condRad] [fw_blanket] [inboard]
	110 [condRad] [shield] [outboard]
	111 [condRad] [shield] [inboard]

Div Group

P_DivGroup [i] [j]:	P_DivGroup [i] [j]:
i=0 [neutron]	00 [neutron] [divPlates]
i=1 [condRad]	01 [neutron] [divBlanket]
j=0 [divPlates]	02 [neutron] [divShield]
j=1 [divBlanket]	10 [condRad] [divPlates]
j=2 [divShield]	11 [condRad] [divBlanket]
	12 [condRad] [divShield]

Blanket and Divertor Pumping Powers:

$P_{\text{blanket_sic}} = (f_{\text{blanket_ib}}) \times P_{\text{neutron}} \times f_{\text{nmul_fw_inboard}} + P_{\text{rad_first_wall_IB}} [W]$

$P_{\text{pump_blanket_sic}} = (0.43840 \times (\text{flux_neutron_wall_Ave}/1.0e6) + 0.00036) \times P_{\text{blanket_sic}}/100.0 [W]$

$P_{\text{blanket_dcll}} = (f_{\text{blanket_ib}}) \times P_{\text{neutron}} \times f_{\text{nmul_fw_inboard}} + (f_{\text{blanket_ob}}) \times P_{\text{neutron}} \times f_{\text{nmul_fw_outboard}} + P_{\text{rad_first_wall}} [W]$

$P_{\text{pump_blanket}} = (0.03602 \times \text{pow}(\text{flux_neutron_wall_Ave}/1.0e6, 2) + 0.03056 \times (\text{flux_neutron_wall_Ave}/1.0e6) + 0.38359) \times P_{\text{blanket_dcll}}/100.0;$

$P_{\text{pump_divertor}} = \text{pumping_power_divertor}(\text{flux_divertor_Max}) \times P_{\text{thermal_div}}/100.0 [W]$

P_thermal =

- P_FWBSGroup
- P_DivGroup
- P_pump_blanket
- P_pump_divertor