

Change in particle flux if parts of the VA and VT is changed to single wall (Simulation by M. Shupe)

G

th.n:	3.3 kHz	-18%
hi.n:	611 Hz	-18%
had:	133 Hz	-19%
c.r.:	20 Hz	-19%
p.r.:	4 Hz	-20%

th.n. = thermal neutron rate (neutrons < 100 keV)
 hi.n. = high energy neutron rate (neutrons > 100 keV)
 had = charged and neutral hadron rate > 20 MeV
 c.r. = counting rate
 = $0.0005n + 0.0117 \gamma + (\mu + p + \pi + 0.25e) / 2$
 p.r. = penetrating particle rate
 = $0.1 \cdot 0.0117 \gamma + (\mu + p + \pi + 0.25e) / 2$

F

th.n:	3.1 kHz	-17%
hi.n:	637 Hz	-19%
had:	122 Hz	-17%
c.r.:	19 Hz	-21%
p.r.:	4 Hz	-33%

Forward
Toroid

th.n:	25 kHz	-12%
hi.n:	10 kHz	-14%
had:	1.3 kHz	-14%
c.r.:	160 Hz	-9%
p.r.:	43 Hz	-5%

th.n:	35 kHz	-13%
hi.n:	28 kHz	-10%
had:	6.8kHz	-9%
c.r.:	444 Hz	+1%
p.r.:	149 Hz	-3%

th.n:	3.4 kHz	-19%
hi.n:	829 Hz	-18%
had:	325 Hz	-18%
c.r.:	73 Hz	+10%
p.r.:	14 Hz	-5%

th.n:	1.8 kHz	-8%
hi.n:	566 Hz	-3%
had:	28 Hz	-6%
c.r.:	21 Hz	+10%
p.r.:	5 Hz	+19%

D

th.n:	2.7 kHz	-18%
hi.n:	1.02kHz	-16%
had:	452 Hz	-16%
c.r.:	185 Hz	+22%
p.r.:	29 Hz	+8%

E

