Operation of the Long Wavelength Target Station without changing the repetition rate on the high power, Short Wavelength Target Station should be possible under the conditions described below. Essentially, the linac is operated at 1.3 GeV with two pulse-trains, one with 770 microsecond-pulses at a repetition rate of 60 Hz for the SWTS and a second with 1 millisecond-pulses at a repetition rate of 10 or 12 Hertz. The two trains of pulses are interleaved with an 8.33 millisecond offset. Under these conditions the FES, normal conducting parts of the linac, and injection bump hardware will have no greater duty cycle than what is required for standard 1 GeV operation of the SWTS. The extraction hardware will see an increase in the duty factor.

SWTS only, 1 GeV, 1 ms long pulse, 60 Hz rate

[I(MEBT)] x [chopper ratio] x [duty cycle] x [energy] = power
[52(10**-3)] x [0.68] x [(10**-3)/(1/60)] x [1(10**9)] = 2.12 Mw

duty cycle = 6%

SWTS only, 1.3 GeV, 770 microsecond long pulse, 60 Hz rate

[52(10**-3)] x [0.68] x [(770(10**-6)/(1/60)] x [1(10**9)] = 2.12 Mw

duty cycle = 4.62%

LWTS, 1.3 GeV, 1 ms long pulse, 10 Hz rate

[52(10**-3)] x [0.68] x [(10**-3)/(1/10)] x [1(10**9)] = 459 Kw

duty cycle = 1%

LWTS, 1.3 GeV, 1 ms long pulse, 12 Hz rate

[52(10**-3)] x [0.68] x [(10**-3)/(1/12)] x [1(10**9)] = 551 Kw

duty cycle = 1.2%
