

Proposal: increase 11 GeV current to 140 μA

- Justification: Over 15 years of high current experiments in Halls A and C are already on the books. Higher current capability would allow parallel running.
- Legal constraint: Environmental Impact Statement (EIS) 1MW limit
- Hardware constraints:
 - Klystrons on C100s can't drive 700 μA at full energy
 - A/C beam dumps share a 1 MW heat exchanger
- Hardware non-constraint: existing beam dumps can accept $\sim 1.5\text{MW}$ at 11 GeV (personal communication, M. Wiseman, ~ 2000)

Proposed solution

- Refurbish ten more C25s into C50s so C100s can be turned down, enabling 700 μA within klystron power limit
- Replace heat exchanger with 2MW capacity unit
- Supplemental EIS
- Guesstimated cost \$20M (2012\$, loaded)
- Collateral benefit: lower trip rate