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Continue Check of Linac and HEBT Parameters

J. Claus

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Collider Accelerator Department

Brookhaven National Laboratory

U.S. Department of Energy

USDOE Office of Science (SC)

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No. 46

AGS Studies

Beam Transfer and Low Field Correction Studies — Oct. 3, 1973

Claus, Herrera, Gill, Raka, van Steenbergen — 1000-2400

Objective: Continuation of check on performance reproducibility using May 24 low field correction values.

Results: Following replacement of the anode pulser in the Cockcroft-Walton, the beam was tuned to 5.75×10^{12} p/p. Most of the intensity study period was devoted to resetting up the May 24 low field corrections and the analysis of the resulting parameters. Again early stacked beam intensity increased by about 10% (to approximately 1.6×10^{12} ppp stacked), but the basic spiraling beam behavior was unsatisfactory. No amount of gradient correction variation did improve this. The ν values and closed orbits were measured for these conditions. The resulting parameters did not explain the spiraling beam behavior. By 9:00 o'clock p.m. the machine was reset to optimized post shutdown low field corrections and the final intensity brought back to approximately 5.3×10^{12} ppp.