

# BNL-104043-2014-TECH AGS.SN166;BNL-104043-2014-IR

### **SEC Calibrations**

J. W. Glenn

May 1984

Collider Accelerator Department

Brookhaven National Laboratory

## **U.S. Department of Energy**

USDOE Office of Science (SC)

Notice: This technical note has been authored by employees of Brookhaven Science Associates, LLC under Contract No.DE-AC02-76CH00016 with the U.S. Department of Energy. The publisher by accepting the technical note for publication acknowledges that the United States Government retains a non-exclusive, paid-up, irrevocable, world-wide license to publish or reproduce the published form of this technical note, or allow others to do so, for United States Government purposes.

#### **DISCLAIMER**

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or any third party's use or the results of such use of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

Number	166
--------	-----

#### AGS Studies Report

Date <u>May 8, 19</u>	84	Time _	1400	
Experimenter(s)	J.W. Glenn			
		<del></del>	···	* * ** ** * * * * * * * * * * * * * *
Reported by	J.W. Glenn			
Subject(s)	SEC "Calibrations"			
				•

#### Observations and Conclusion

An approximate calibration of the ABC and C3 SEC's was obtained using the internal beam monitor and loss monitors. Approximately  $1 \times 10^{12}$  and  $4 \times 10^{12}$  protons per pulse was delivered to each target station separately and the losses and SEC responses noted. The sum of loss monitors was generally less than 10% of the total beam accelerated and their calibration is known to better than 25%. Thus, the SEC calibrations should be better than 5%. The exception is the C3 SEC where loss monitor coverage is less complete and beam hitting the C target further complicates the calibration.

A similar test was made in January, 1984. The A and C3 SEC's show significant changes since then.

Beam	Present Response Normalized to January Response	New Calibration protons x 10 % count
A	42%	0.477
В	78%	1.208
С	98%	1.29
C†	200%	0.491

mvh