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| **MEMORANDUM**  |
| Date:  | August 12, 2021 |
| To:  | Distribution  |
| From:  | Rolf Ent and Camille Ginsburg for the Nuclear Physics Experiment  |
|  | Scheduling Committee  |
| Subject:  | Start of the Experimental Program |

The Scheduled Accelerator Down (SAD) period is coming to an end and machine restoration is in full progress. A 1st-pass tune beam has made its way through the two linacs and two arcs into a dumplet at the end of ARC2 at 1.82 GeV/pass, the first of the two energies scheduled for the period August to December 2021.

Many systems were refurbished or upgraded during this SAD to improve the overall machine reliability. Two well-known examples are the new 2K cold box and the installation of two new cryomodules in the North linac - one of them, the first of the new generation of C75 modules also uses a new generation (3G) of low-level RF controls. Bringing these systems into operation is going well and are mostly on schedule. A place we are behind schedule is in the restoration of the ARC box power supplies which power the magnets to recirculate the beam.

During regular maintenance on these supplies an unexpected issue was discovered with a key component that is common for all the ARC power supplies. After consultation with the manufacturer it was determined that we must replace these components to support the upcoming run.  The replacement parts were a mix of spares and newly procured components. Unfortunately, among the newly procured components were many that experienced early failure and do not meet specifications.  We are working with the supplier and manufacturer to evaluate the situation. Further, these components are now in short supply in the marketplace due to global supply chain issues. With help from many, we now have sufficient components to bring all the affected ARC power supplies back into operation by August 22 except for ARC10, which is necessary to bring Hall D into operation.

Tuning of the machine will take a few days after the ARC9 power supply is available on August 22. We are projecting the begin of physics to be around August 26-27 instead of August 23 for Halls B and C. The situation to get parts in to make ARC10 functional is uncertain and we expect to give an update on the Hall D schedule in 1-2 weeks. Hall A schedule is unchanged (September 3).