

Certification and Accreditation Documentation
for
Lattice QCD Research Program Extension III

Unique Project (Investment) Identifier: 019-20-01-21-02-1032-00

Operated at
Brookhaven National Laboratory
Fermi National Accelerator Laboratory

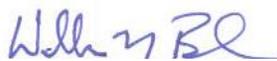
for the
U.S. Department of Energy
Office of Science and High Energy

Version 1

July 30, 2020

PREPARED BY:
Josephine Fazio, FNAL

CONCURRENCE:



William N. Boroski
LQCD Contractor Project Manager

Date: 08/04/2020

**LQCD-ext III Certification and Accreditation Documentation
Change Log**

Version No.	Description / Pages Affected	Effective Date
0.0	Updated to reflect LQCD-ext III operations model.	June 18, 2019
0.1	Updated to reflect updated ATO	July 30, 2020

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1. SCOPE AND PURPOSE

This document contains Certification and Accreditation (C&A) documentation for the Lattice QCD Research Program Extension III Research Program (hereafter LQCD).

Computing systems used for LQCD operations at Brookhaven National Laboratory (BNL) and Fermi National Accelerator Laboratory (FNAL) are managed as parts of the enclaves maintained at each of the Laboratories and are governed by the corresponding rules of the Laboratories.

As of this date, C&A status at sites are given below:

- **BNL:** BNL is operating under a Computer Security Authority to Operate (ATO) document issued by the U.S. Department of Energy. A copy of BNL's DOE ATO cover letter is included in a later section.
- **FNAL:** FNAL is operating under a Computer Security Authority to Operate (ATO) document issued by the U.S. Department of Energy. A copy of FNAL's DOE ATO cover letter is included in a later section.

2. DOE ATO COVER PAGE for Brookhaven National Laboratory



Department of Energy
 Brookhaven Site Office
 P. O. Box 5000
 Upton, New York 11973

AUG 30 2019

Mr. Ian Ballantyne
 Brookhaven Science Associates, LLC
 Brookhaven National Laboratory,
 Upton, New York 11973

Dear Mr. Ballantyne:

SUBJECT: AUTHORIZING OFFICIAL (AO) AUTHORITY TO OPERATE (ATO) APPROVAL.

References: Letter from I. Ballantyne, BSA to R. Gordon, SC-BHSO, Subject: Authorizing Official (AO) Authority to Operate Approval, dated August 26, 2019.

The above reference letter requests approval to renew Brookhaven National Laboratory's (BNL) Authority to Operate for the Unclassified Program set to expire on August 30, 2019. In support, BSA has updated BNL's Cyber Security Program Plan, Common Control Catalog, and Subsystems System Security Plans to the current National Institute of Standards and Technology (NIST) Special Publication (SP) 800-53 Revision 4 and Office of Science Program Cyber Security Plan. In addition, BSA performed the necessary security control assessment to ensure that the controls are implemented correctly, operating as intended, and producing the desired outcome. The Brookhaven Site Office (BHSO) understands that any weaknesses identified in the assessment that could not be completed in thirty days will be tracked via Plans of Actions and Milestones (POA&Ms) with updates made during BNL's Cyber Security meetings.

BHSO and the Integrated Support Center reviewed BSA's plans and supporting documentation and in addition, the response provided to our comments have been addressed. Based on a careful review, your request to renew the ATO is granted for the Information Systems and associated subsystems listed below to September 4, 2020.

Information Systems	Information Subsystem	Information Subsystem Category
Administrative and Support	Low Risk General Computing	Low
Administrative and Support	Moderate Risk General Computing	Moderate
Administrative and Support	Network Infrastructure	Moderate
Administrative and Support	Protected Core	Moderate
Administrative and Support	Shared Services	Moderate
Facility Management	Energy Management Control	Moderate
Research Facilities	C-AD Controls	Moderate
Research Facilities	Photon Sciences Controls	Moderate
Research Facilities	Scientific Data and Computing Center	Moderate
Research Facilities	sPHENIX	Moderate
Research Facilities	STAR Data Acquisition	Moderate

K. Lally

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JUN 30 2014

This ongoing ATO supersedes any prior ATO letter issued and will be renewed on an annual basis. The Laboratory should retain a copy of this letter with the security authorization package.

If you have any questions, please contact Jonathan Loh, of my staff at extension 5408.

Sincerely,



Frank J. Crescenzo
Site Manager

cc: F. Healy, SC-ISC
R. Gordon, SC-BHSO
E. Landini, SC-BHSO
J. Loh, SC-BHSO

3. DOE ATO COVER PAGE for Fermi National Accelerator Laboratory



Department of Energy

Fermi Site Office
Fermi Office Box 2000
Batavia, Illinois 60510

MAR 20 2014

Mr. Rob Roser, Acting
Chief Information Officer
Fermilab
P.O. Box 500
Batavia, IL 60510

Dear Mr. Roser:

**SUBJECT: ACCREDITATION OF FERMI NATIONAL ACCELERATOR LABORATORY
COMPUTER SECURITY ENCLAVES AND MAJOR APPLICATIONS –
AUTHORITY TO OPERATE**

In accordance with DOE Order 2015-18 and the Program Cyber Security Plan (PCSP) for the Office of Science, DOE has determined that Fermi National Accelerator Laboratory has established vigilant and effective oversight of its computer security and network operations for the General Computing Environment and the Open Science Environment. The Laboratory also underwent an extensive DOE Office of Inspector General audit in 2013, which resulted in only four findings of minor significance. I hereby grant an Authority to Operate (ATO) for these systems as the Authorizing Official, based on the results of satisfactory performance demonstrated through continuous monitoring data under the Contractor Assurance System since May of 2012 and positive results of the recent audit.

DOE will continue to work with your team to coordinate activities that provide robust continuous monitoring of the Cyber Security Program. The Laboratory is expected to continue monitoring of computer security and network operations and report any incidents in accordance with the PCSP. DOE will routinely evaluate system performance, follow-up on any security-significant events and re-evaluate ATO status as appropriate in accordance with the PCSP.

If you have any questions concerning this correspondence, please call Whitney Begner, of my staff, at (830) 840-5743.

Sincerely,

Michael J. Weis
Site Manager

cc: V. White, Fermilab
J. Chang, Fermilab
I. Gaines, Fermilab
F. Healy, DOE-CH

*This ATO includes the Lattice
Booke Systems*

APPENDIX A: Acronyms

ATO	Authority to Operate
C&A	Certification and Accreditation
LQCD	Lattice Quantum Chromodynamics
POAM	Plan of Action and Milestones