



Robert Anderson
Telephone: (510) 987-9303
Fax: (510) 763-0309
Email: Robert.Anderson@ucop.edu

Chair of the Assembly and the Academic Council
Faculty Representative to the Board of Regents
University of California
1111 Franklin Street, 12th Floor
Oakland, California 94607-5200

July 3, 2012

NORMAN J. PATTIZ
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

Re: ACSCOLI'S Letter on NNSA National Ignition Facility Time Allowance Procedures

Dear Norm:

I wish to bring your attention to a May 30, 2012 letter from the Jeffrey P. Quintenz, Director of the Office of Inertial Confinement Fusion and High Yield Campaign at the National Nuclear Security Administration (NNSA), to Edward I. Moses, Director of the National Ignition Facility (NIF) at the Lawrence Livermore National Lab (LLNL), which specifies and directs the shot schedule for the missions of the NIF in FY 2013. In short, this letter prescribes explicitly the number of shots that should be taken to support the non-ignition Stockpile Stewardship Program and the number of shots that should be taken to support the remaining missions in FY 2013.

ACSCOLI feels strongly that this type of micro-management is not only detrimental to the National Ignition Campaign (NIC) missions, but also jeopardizes the quality of basic science research being conducted at the NIF. Academic Council recently endorsed ACSCOLI's letter, which recommends that the NNSA letter be rescinded. Subsequently, I am formally transmitting ACSCOLI's letter to you in your capacity as Chair of the LLNS LLC Board, and ask for your support in seeking the rescission of the NNSA letter.

Thank you. Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Robert Anderson".

Robert M. Anderson, Chair
Academic Council

Copy: President Mark G. Yudof
Marsha Kelman, Secretary and Chief of Staff to The UC Regents
Glenn Mara, Vice President for Laboratory Management
Academic Council
Martha Winnacker, Academic Senate Executive Director

Encl. 1



Robert L. Powell
Telephone: (510) 987-0711
Fax: (510) 763-0309
Email: robert.powell@ucop.edu

*Vice Chair of the Assembly and the Academic Council
Faculty Representative to the Board of Regents
ACSCOLI Chair
University of California
1111 Franklin Street, 12th Floor
Oakland, California 94607-5200*

June 29, 2012

**ROBERT M. ANDERSON, CHAIR
ACADEMIC COUNCIL**

Re: NNSA National Ignition Facility Time Allowance Procedures

Dear Bob:

At its June 28, 2012 meeting, the Academic Council Special Committee on Lab Issues (ACSCOLI) discussed in some detail a May 30, 2012 letter from the Jeffrey P. Quintenz, Director of the Office of Inertial Confinement Fusion and High Yield Campaign at the National Nuclear Security Administration (NNSA), to Edward I. Moses, Director of the National Ignition Facility (NIF) at the Lawrence Livermore National Lab (LLNL), directing the shot schedule for the missions of the NIF in FY 2013. As you are aware, the NIF's experiments are designed to advance the Stockpile Stewardship Program (SSP) through ignition and non-ignition experiments, as well as to carry out basic high energy density science research in such fields as astrophysics, nuclear physics, radiation transport, materials dynamics and hydrodynamics, and to support other national security missions. In addition, the NIF is crucial in providing scientists with the necessary understanding of the physics underlying the use of inertial confinement fusion (ICF) for safe, clean energy production.

The enclosed NNSA letter prescribes explicitly the number of shots that should be taken to support non-ignition SSP, and the number of shots that should be taken to support the remaining missions in FY 2013. Specifically, NNSA dictated to LLNL that at least 60% of the NIF shots should be allocated to the non-ignition SSP mission and that the remaining 40% should be allocated to the ignition, fundamental science, and other national security missions. ACSCOLI supports each of these missions. Above all, it supports the scientists who form the backbone of the National Ignition Campaign (NIC) and their judgment as to the way forward to best achieve the highly ambitious goals of NIC. ACSCOLI firmly believes that micro-management by NNSA is detrimental to both NIC missions, but also jeopardizes the quality of basic science research being conducted at the NIF. Indeed, under the Government-Owned/Contractor-Operated (GOCO) relationship that underlies the management of LLNL and the University of California's participation in the LLC, and more particularly, UC's leadership in ensuring the quality of the science, it is clearly within LLNL's purview and responsibility to decide upon the schedule for NIF shots. The GOCO relationship allows the government to access the capabilities and knowledge of industry and universities in managing technically complex institutions. It is our view that NNSA's overly prescriptive approach is symptomatic of a broader dysfunction in its relationship to the National Laboratories, as described

in the Phase 1 Report of the National Academies' Study on *Managing for High-Quality Science and Engineering at the NNSA National Security Laboratories*.

In short, ACSCOLI recommends that the NNSA letter be rescinded, and that LLNL be allowed to determine its own NIF shot schedule in order to appropriately support its missions and advance the leading edge science that the NIF enables. All members of ACSCOLI who attended this meeting believe that LLNL scientists must make critical decisions about the development, calibration and use of its facilities. While we understand that there are constraints imposed by the various demands on NIF time, these will not be reconciled by having NNSA micro-managing the facility. Any arrangement that does not honor and trust the leadership at LLNL to make the best possible decisions to support NIF is not one in which the University of California should participate. We respectfully request Academic Council's endorsement of our letter, and ask that you transmit it to UC Regent Norman J. Pattiz in his capacity as Chair of the LLNS LLC Board.

Thank you. If you have any questions, please let me know.

Sincerely,

A handwritten signature in black ink that reads "R. L. Powell". The signature is written in a cursive, flowing style.

Robert L. Powell,
Academic Council Vice Chair
ACSCOLI Chair

Copy: ACSCOLI
Martha Winnacker, Academic Senate Executive Director

Encl: 1



Department of Energy
National Nuclear Security Administration
Washington, DC 20585



May 30, 2012

Dr. Edward I. Moses
Director, National Ignition Facility
Principal Associate Director, NIF and Photon Science
Lawrence Livermore National Laboratory
PO Box 808
Livermore, CA 94551-0808

Subject: FY 2013 National Ignition Facility (NIF) facility time allowance

Dear Dr. Moses,

I am writing in response to your May 15, 2012 letter regarding your comments on draft guidance provided by NNSA for facility time allocation process and FY 2013 allocation for NIF. NNSA provides guidance for facility usage after considering carefully the competing needs within our various program elements. We provide guidance for all of our major national facilities. Within the ICF Program, these consist principally of the NIF, Z, and Omega. We appreciate that for the NIF, FY 2013 will be a transitional year. The NIC is ending in FY 2012 after a productive and intensive effort to achieve ignition following the schedule and plans driven by the NIC Execution Plan. The concentrated effort to achieve ignition has favored facility time allocation toward demonstrating laser performance and toward testing the ignition point design. The balance of NIF available time has been divided between non-ignition SSP, fundamental science, and other national security experiments. The priority given to ignition demonstration and facility capability development (laser, diagnostics, procedures, etc.) together with the other applications of NIF resulted in far fewer non-ignition SSP experiments being performed than required by the Stockpile Stewardship Management Plan (SSMP). In fact, the HED Council has defined many required experiments and has prioritized them by tiers. The requirements identified by the Council have resulted in a significant oversubscription of NIF. Our guidance for allocation of facility time on the NIF beginning in FY 2013 reflects this built-up demand.

To support this conclusion one need only consider the number of experiments that have been performed compared to the list of experiments waiting for NIF time. In FY 2011, for example, there were 144 requests; 89 of those requests were prioritized for fielding; and only 43 ultimately were fielded. In part based upon actual available time for these experiments in FY2011, the total number of requests dropped in FY 2012, but 84 shots were prioritized, still far above the expected number that would be fielded. It is anticipated that the number of requested shots will increase as the available facility time for these non-ignition SSP shots increases. One also can look to our experience with allocating facility time at Z during the same period. During FY 2011, 69% of the available time on Z was devoted to SSP experiments that were not part of the pulsed power fusion effort. The balance of time on Z was devoted to pulsed power fusion, other national security, fundamental science, and capability enhancement activities. Given the



above, NNSA is committed to shifting the balance of activity on NIF significantly in the direction of non-ignition SSP beginning in FY 2013.

NNSA has been consistent in planning for FY 2013 NIF allocation over the course of the past year. NNSA has stated that beginning in FY 2013, 65% of NIF time would be devoted to non-ignition SSP experiments. Were we to fail to achieve ignition in FY 2012, we are convinced that a more direct application of NIF to stockpile issues combined with a continued but less aggressive approach toward the ultimate goal of ignition and high yield will produce the most benefit to the overall SSP in the near term.

We appreciate that transitions can present planning difficulties and efficient use of the complex NIF facility will require some flexibility during that transition period. We also appreciate that NIF still is in its infancy as a user facility. Given that, and in part addressing your concerns, NNSA is adjusting its guidance as follows:

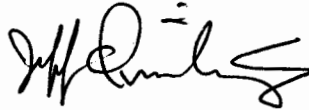
- No less than 60% of the NIF facility time shall be dedicated to non-ignition SSP in FY 2013.
- The remaining 40% shall be divided between all remaining applications (ignition, fundamental science, other national security, and contingency) as deemed appropriate and efficient by the NIF Director in consultation with the various NIF user groups.
- The NIF Director will report to NNSA on a monthly basis during the transition period of FY 2013 accounting for the NIF usage as divided by program area described above.
- The non-ignition SSP experiments will be defined by the HED Council and will be coordinated with the NIF Director to optimize facility efficiency.
- MTE 10.2 funds should be managed jointly by a representative from Weapons Complex Integration (WCI) and the ICF Program.
- MTE 10.3 and MTE 10.7 funds can be applied to support the non-ignition SSP experimental campaigns as allowed within financial legal constraints. NIF is intended to support NNSA and other users, but to minimize any confusion, appropriate language will be added to the AFP and the Work Authorization Statements to ensure that MTE 10.3 and MTE 10.7 funds can be used.
- The HED Council will review the MTEs 10.2, 10.3, and 10.7 resource plans in order to program future shot allocations for non-ignition SSP.

In addition, every effort should be made to transition the NIF into a user facility that better accommodates experimentalists from each of the various user groups. Having a variety of users will help identify the obstacles to an improved user experience at NIF.

By adhering to the above guidance, NNSA believes that we can best achieve the urgent needs of the stockpile and that we can make optimal progress toward achieving the major pegposts within the PCF.

The NIF is the premiere facility within the ICF program. It is no surprise that it is in high demand. There are significant experiments that must be conducted in the near term, and we anticipate that NIF will continue to provide unique capabilities for the SSP. In the longer term, ignition remains an important goal for the SSP. Once achieved, a robust ignition platform will influence heavily the allocation of future facility time for the NIF.

Sincerely,



Jeffrey P. Quintenz
Director
Office of Inertial Confinement Fusion
and High Yield Campaign

cc: P. Albright (LLNL)
D. Cook, NA-10
K. Davis (LSO)
C. Deeney, NA-11
T. Diaz de la Rubia (LLNL)
T. Gioconda (LLNL)
W. Goldstein (LLNL)
B. Goodwin (LLNL)
G. Mara (UC)
C. Verdon (LLNL)