# CHARTER OF THE NUCLEAR DATA ADVISORY GROUP FOR THE DOE NUCLEAR CRITICALITY SAFETY PROGRAM (NCSP)

## October 2018

<u>Mission:</u> The Nuclear Data Advisory Group (NDAG), through making recommendations to the NCSP Manager, enhances the coordination of the NCSP Nuclear Data Element work program with current and future DOE needs and promotes the integration of this work program with the other elements of the NCSP. Towards these objectives, the NDAG performs the following functions:

- The NDAG identifies deficiencies in evaluated differential and integral nuclear data and recommends priorities and specific resources for meeting identified DOE criticality safety nuclear data needs. The NDAG supports the NCSP Manager in her approval of Integral Experiment Requests and Nuclear Data Requests as implemented on the NCSP website.
- 2. The NDAG identifies the required resources and unique capabilities for meeting these needs. These may include but are not limited to facilities and scientists to measure differential and integral nuclear data, scientists to evaluate nuclear data including development and use of nuclear model codes, staff and codes to process evaluated nuclear data into the form required by the nuclear analysis codes, and staff to benchmark evaluated differential nuclear data against integral experiments.
- 3. In performing functions 1 and 2, the NDAG communicates and works with the DOE programs involving fissionable material, with the Integral Experiments, Benchmarking, Nuclear Data and Analytical Methods Elements of the NCSP and the leadership of the National Nuclear Data Center, the Cross Section Evaluation Working Group (CSEWG), and the Working Party on International Evaluation Cooperation (WPEC) of the OECD/NEA Nuclear Science Committee to expedite issuance of new data and methods to the DOE criticality safety user community.
- 4. The NDAG evaluates and determines high-level concerns (i.e., any data deficiencies/concerns/issues with potential to significantly impact safety or efficiency of current fissile material operations) for immediate or short-term attention and/or correction and communicates these concerns to the NCSP Manager. Subsequently, these issues may be posted to the NCSP website for dissemination to and use by the criticality safety community.
- 5. As directed by the NCSP Manager or NCSP Execution Manager, the NDAG assists in NCSP work program planning such that the Nuclear Data work program is successfully integrated into the federal budget cycle, e.g., NCSP 5-Year Plan Appendix B, "Nuclear Data Priorities, Basis Statements, and Milestones" revisions and reviews.
- The NDAG shares observations and makes recommendations to the NCSP Manager or NCSP Execution Manager on additional useful functions that the NDAG could perform for the NCSP.
- 7. The NDAG will perform an annual self-assessment of the Nuclear Data Element to identify opportunities for improvement in the Nuclear Data arena and make recommendations to the NCSP Manager regarding responsibility for implementing those improvements and tracking them to closure. These improvements will be focused on better responsiveness to the DOE line programs at the sites, on identifying improvements in coordination, and on streamlining the process leading to issuing new/improved data to the end-users.

<u>Membership</u>: The NDAG membership benefits from the representation of several important areas of expertise, experience and responsibility:

- 1. Nuclear data specialists (Experimentalists, Evaluators, Processors).
- 2. Criticality safety analysts from the major DOE sites.
- 3. Program management and technical leadership from the NCSP work elements (Nuclear Data, Integral Experiments, Benchmarking, and Analytical Methods).
- 4. To the extent feasible, individuals with more than one of these areas serve on the NDAG. Alternates back up key areas of expertise and/or activity.

The NDAG Chair, with assistance of the NDAG members and NCSP Management team, shall evaluate the effectiveness of the NDAG membership annually to ensure qualified and active participants are available to provide timely and beneficial Nuclear Data advice and guidance to the NCSP Manager.

The NDAG Membership Policy is contained in Appendix A and Work Instructions are contained in Appendix B.

<u>Leadership:</u> The NDAG chair is elected by the NDAG membership to a three-year term and approved by the NCSP Manager. The procedure for electing the NDAG chair is defined in Appendix A. The chair has responsibility for the technical leadership of NDAG. The head of the National Nuclear Data Center of Brookhaven National Laboratory serves in a special consultancy to the NCSP on nuclear data matters and assists the NDAG Chair in overall program evaluation and interfacing with the nuclear data community (CSEWG, WPEC, etc.).

<u>Meetings:</u> The NDAG will conduct at least one meeting a year. Scheduling of these meetings will try to take advantage of opportunities when most of the membership is co-located for some other purpose, e.g., the Fall meeting of the CSEWG at BNL or Spring/Summer meeting of the NCSP.

**APPROVED:** 

November 5, 2018

Dr. Angela Chambers

Angela S. Chambres

**Nuclear Criticality Safety Program Manager** 

## Appendix A

## **NUCLEAR DATA ADVISORY GROUP (NDAG) MEMBERSHIP POLICY**

#### October 2018

### Size and Composition of the NDAG

The membership of the NDAG shall be limited to twenty members. Members do not receive funding support from the Nuclear Criticality Safety Program, except for the Chair who is supported as appropriate to the specific tasks and roles on the NDAG. The NDAG may form unofficial subcommittees, working groups or mentoring relationships comprised of non-NDAG members as needed. However, these ad-hoc participants are not voting members of the NDAG nor are they funded directly by the NCSP. All NDAG Members are appointed and serve with the approval of the NCSP Manager.

# **NDAG Member Qualifications**

The following are minimum qualification requirements of eligibility for membership on the NDAG.

- 1. Must have demonstrated professional excellence in at least one of the technical areas of the NCSP.
- 2. Must have demonstrated an understanding of the role of the NCSP technical infrastructure in support of the Mission and Vision of the NCSP.
- Once appointed to the NDAG, membership is maintained by active participation in NDAG activities. On an annual basis, the NCSP Manager, NCSP Execution Manager, and NDAG Chair assess the participation level of each member and determine whether continued membership is appropriate.

# **Selection of New NDAG Chair**

The NDAG chair is elected by the NDAG membership to a three-year term using the following election procedure whenever there is a vacancy in the chair position or prior to the start of the fourth quarter during the last year of the three-year term of the current chair:

- In the event there is an unexpected vacancy in the NDAG chair position, the NCSP
  Manager appoints an interim NDAG chair to oversee the election of the NDAG chair
  using the subsequent procedure; otherwise, the current NDAG chair oversees the
  election process. The Head of the National Nuclear Data Center (NNDC), who is not
  eligible for the NDAG chair position, will serve as an independent counter of the votes
  during the chair election process.
- With the exception of the Head of NNDC, the pool of candidates for the chair position is the existing body of the NDAG membership, including the current NDAG chair. Prior to the election process, NDAG members should notify the current chair if they wish to be considered for the chair position.

- 3. Prior to the election, each candidate must submit documentation (e.g., email, memo, etc.) to the current NDAG chair stating that their respective site line manager supports their consideration for NDAG chair and authorizes them to serve if elected to the chair position.
- 4. Once the pool of chair candidates is finalized, the election process is initiated, and the NDAG membership submits their respective vote to the NDAG chair and Head of NNDC. The NDAG chair and Head of NNDC tally the votes. Once the election results are confirmed between the NDAG chair and Head of NNDC, the NDAG Chair communicates the final results to the NDAG. The chair elect is the candidate with the majority of votes from the NDAG membership.
- 5. In the event there is a tie, a "run-off" election is held between the candidates with the same number of votes. The same voting process as the general election is used for the run-off election. The NDAG chair communicates the final result to the NDAG membership.
- 6. Once the election is complete and the new chair is elected, the currentNDAG chair communicates the final result to the NCSP Manager for review and approval.
- 7. Once approved by the NCSP Manager, the chair elect assumes the NDAG chair position at the beginning of the next fiscal year unless there is an interim NDAG chair in place due to an unexpected vacancy in the chair position. If there is an unexpected vacancy, the above election procedure is performed as soon as possible when the vacancy occurs. Once the election process is completed following a vacancy, the chair elect assumes the NDAG chair position after the election process is completed.

# **Selection of New Members**

When NDAG membership position(s) are vacant and the NDAG determines the need to fill the vacant position(s), each new member is nominated and elected via the following process.

- 1. The existing NDAG membership submits nominations to the NDAG Chair for new members who meet the NDAG Member Qualifications.
- 2. For each nomination, the candidate provides a current resume to the NDAG Chair, and the NDAG chair distributes the resume to the NDAG for review.
- 3. If the number of candidate nominations is less than or equal to the number of available positions on the NDAG, The NDAG votes on each candidate. A candidate becomes an official nominee for NDAG membership with a majority of acceptance votes from the NDAG. The name and qualification package for each nominee is forwarded to the NCSP Manager for review and approval.
- 4. If the number of candidate nominations is greater than the number of available positions on the NDAG, the NDAG votes on the candidates, and the candidates receiving the most acceptance votes become the official nominees to fill the available positions on the NDAG. The names and qualification package for the nominees are forwarded to the NCSP Manager for review and approval.
- 5. In case two candidates are tied for one available position, both names and the accompanying qualification packages shall be forwarded to the NCSP Manager who will break the tie.

- 6. The NCSP Manager reviews the nominating package(s) and appoints the new member(s).
- 7. The new member(s) will join the NDAG once the NCSP Manager appoints the new member(s).

## Appendix B

#### NDAG WORK INSTRUCTIONS

#### October 2018

This set of specific work instructions is provided by the NCSP manager to set performance expectations for the NDAG. The NCSP manager may modify the NDAG Work Instructions from time to time as deemed necessary. Revisions to these instructions will be promulgated promptly to the NDAG Chair.

# **NDAG Meetings**

- An agenda for each NDAG meeting shall be issued by the NDAG Chair in advance of a scheduled meeting and distributed to the members of the NDAG and the NCSP Management Team together with any materials needed for review of the agenda items.
- 2. The NDAG Chair shall ensure that the minutes of each meeting are formally recorded. Verbatim minutes of the meetings are not required, but the main points of the issues discussed must at least be summarized and decisions clearly delineated.
- 3. After review and concurrence by the members of the NDAG, the minutes shall be forwarded to the NCSP Manager and NCSP Execution Manager.

#### **NDAG Reports**

- The results of any evaluation, review, or similar activity by the NDAG shall be transmitted to the NCSP Management Team in a formal report. These reports shall represent the <u>consensus</u> position of the NDAG members.
- 2. All formal written correspondence on behalf of, or representing, the NDAG individually or collectively, must be reviewed and approved by the NCSP Manager prior to making distribution.
- 3. In the event of serious disagreement with the content of any such report, NDAG members, either individually or with other members, may submit a minority report to the NCSP manager. The NCSP manager will act as needed to resolve the issues raised by any minority report and inform the authors of that report of the resolution.

# **NDAG Communications**

Deliberations of the NDAG and discussion of issues with the NCSP Manager must be kept within the NDAG until such time as an official position is reached and the NCSP Manager grants approval to disseminate or discuss the information with non-NDAG members. The NDAG may discuss such issues with NCSP task element managers as appropriate.