

Response to the Charge Questions

- 1) Has USNDP adequately addressed recommendations from previous NDAC reviews? Is additional action required? If a recommendation has not been addressed, is there sufficient reasoning to not do so?

See responses below.

- 2) To what extent does the USNDP meet its established goals and priorities?

We will expand on this topic during the meeting. We believe the members of the USNDP have met their established goals and priorities, despite resource limitations. We do not believe anything has “fallen through the cracks”, but there is always a danger. Modernization efforts have eased the workload in some cases, and we hope that advances in the application of AI/ML techniques can continue this progress.

The USNDP resource limitations also impacts the USNDP’s ability to address emerging challenges and needs. This is discussed in the NSAC charge report(s) and will be discussed during the committee meeting.

- 3) What challenges are the USNDP encountering in carrying out their program? How might these be addressed? Are there compelling opportunities for program improvement or enhancements?

We will talk about this in the meeting but summarize here. Our biggest challenge is that our base funding has not kept pace with costs. This has led us to search for new opportunities/sponsors, eroding our productivity in the process. Nevertheless, we have successfully captured external funding and expanded our funding base. We will discuss other efforts in this direction on Thursday.

- 4) To what extent does the USNDP function like a collaboration? What challenges exist to improving collaboration among USNDP sites?

We will expand on this topic during the meeting. Collaborators share resources and information, plan future projects together, launch new joint projects, are mutually supportive, seek out new members with similar goals, share responsibilities and credit. Here is a collection of projects that demonstrate our collaborative spirit:

Collaboration-wide on-going library development: ENSDF/XUNDL, NSR, ENDF

Selection of jointly developed/funded projects:

1. GRIN [2022-2024] (BNL, LLNL, LBNL),
2. Two GRIN-testing projects [2024-2027] (JHAPL, LBNL, BNL; RPI, BNL)

3. ENSDF Modernization [2020-2023] (BNL, ANL, LLNL)
4. GENESIS [2019-2022] (LBNL, LANL, BNL)
5. FIRE [2018-2022] (LANL, LLNL, BNL, NCSU and U. Notre Dame)
6. Fission Product Yields [2019-2025] (BNL, LANL, LLNL)
7. Evaluation of gamma-ray Production [2022-2024] (LANL, LLNL)

- 5) Assess the quality and effectiveness of any Codes of Conduct and/or DEIA initiatives within the USNDP. Other closely related efforts, such as the Cross Section Evaluation Working Group (CSEWG), where USNDP has a leading role, can be assessed as well.

We will discuss this during the meeting. Briefly, the USNDP has a long track record of recruiting and educating students (and junior staff) into the nuclear data community. The USNDP also endeavors to create a welcoming environment for these new members and all staff both in the USNDP itself and in broader collaborations in which USNDP is part (such as CSEWG, NRDC and NSDD).

- 6) Assess the NNDC's continued designation as a DOE PuRe Data Resource. The NNDC was designated by DOE Office of Science as a PuRe Data Resource (<https://science.osti.gov/Initiatives/PuRe-Data>) in FY21, signifying its importance to the nuclear science and applications community. Part of the designation includes the requirement of regular assessment of the resource's access procedures (user access, data access, etc.), technical metrics (data stored, new data added, number of users, etc.), scientific impact, and community engagement.

We will discuss this during the meeting. Additionally, a summary document will be shared with the committee.