

This year the Neutron Sciences Directorate received the start of funding to further the development of a conceptual design for a second target station (STS) at the SNS. We established an STS project office. The STS project has been organized as two separate activities; a Proton Power Upgrade of the accelerator complex from 1.4MW to 2.8MW (SNS-PPU) and construction of a second target station with an initial suite of 8 instruments (SNS-STTS). An STS workshop was held, attended by over 200 participants, to recommend the initial suite of instruments. Plans for the SNS-PPU and SNS-STTS were reviewed by an advisory committee to the Department of Energy (DOE).

The advisory committee judged SNS-STTS and SNS-PPU to be “absolutely central to contribute to world leading science” but questions exist as to the detailed design and implementation of the SNS-STTS and how the proton pulses from the SNS-PPU are distributed between the first and second target stations proton. The following recommendations were made:

1. Establish a review panel to make a detailed evaluation and recommendations on the proposed designs - detailed analysis of the technical issues such as those related to the STTS repetition rate and pulse length.
2. Work closely with the neutron science user community to develop the most exciting and robust set of “first experiments”
3. Develop more robust targets for the first target station that can fully utilize the proposed SNS-PPU.
4. Build-out the experimental stations for the first target station a priority.

We now seek your feedback and guidance in the following two areas:

1. First Target Station: How we are doing on our path to improved scientific productivity that the Board has been following? Published materials that report metrics such as publications, user numbers, etc, will be made available on a website to help in making this assessment. In addition, we solicit feedback on our plans to achieve and sustain reliable operation of SNS at 1.4 MW beam power, improve target predictability and reliability, and plans for improved and new experimental stations.
2. Second Target Station: Defining a process to conduct a detailed evaluation of the proposed designs for SNS-PPU and SNS-STTS.