

General-Purpose Horizontal Split-Table Critical Assembly

Description of application/purpose

The goal of this IER is to explore the options available to provide the NCSP with a large general-purpose horizontal split-table critical experiment capability. A suitable control system for the machine will be included. This supports one of the five-year goals of the NCSP Mission and Vision.

User Assessment of Available Integral Data (ICSBEP, Published, UnPublished, etc.)

Horizontal split-table machines have been operated at other DOE sites in the past, though none are currently in operation. The machine considered here is intended to fill that gap.

Suggested Experiment Concept

The target design will have a 6 foot by 6 foot, or larger, split table. Though specific fuels may be considered during the design process, the machine will not be tied to any specific fuel system. It will be designed to flexibly accommodate a variety of potential fissile materials. While the design of the machine will start as a clean sheet of paper, the body of knowledge represented by the experience in the DOE complex with split-tables will be considered.

Acknowledgement

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