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## Reactor Safety Control Component Upgrade

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**Collaborators:** N/A

Rhode Island Nuclear Science  
Center

**Program:** University  
Research Reactor Upgrades  
Infrastructure Support

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### ABSTRACT:

#### Project Objective:

The primary objective of this project is to upgrade the last of the vacuum tube based technology from the original installation of the facility and integrate the Reactor Safety Control Components to maintain the long term viability of the facility.

#### Project Summary

The Rhode Island Nuclear Science Center (RINSC) has been in operation since 1964. The facility has a long history of serving all of the education institutions in and around the State of Rhode Island. The facility's commitment to nuclear science and engineering education extends across a broad level of education, from general public outreach, to Doctorate level engineering and physics education and research. As the reactor now operates beyond its fifty fifth year, the RINSC staff continues to work diligently to maintain and improve the reactor instrumentation and controls components. The proposed Reactor Safety Control Components Upgrade Project is an effort to upgrade the last remaining original components in the reactor controls system (still using vacuum tube technology) and integrate the remaining components into a configuration that not only enhances the reactor operator's ability to operate the reactor safely, but also improves reliability, maintenance capability and longevity. This upgrade will improve the long term viability of the research reactor to support ongoing and future research projects and educational endeavors.