

Rhode Island Nuclear Science Center (RINSC)

Facility Introduction

RINSC

- Operates a two-megawatt open pool research reactor under NRC License R-95
- Provides teaching and research laboratories

RINSC has

- Six beam tubes for neutron experiments
- One tangential thru tube
- A thermal column for thermal neutron use
- Gamma ray experiment facilities
- Two pneumatic tube systems for activation analysis
- A flux trap & adjacent core locations for long irradiations

RINSC offers

- Beam line and irradiation studies for research
- Class rooms for education and training
- Counting laboratories supporting research and education
- Educational tours

Beam Line Studies

Experiments that utilize external beams of neutrons guided out of the reactor at controlled locations

Available Neutron Flux

- Thermal Flux = $3E7$ n/cm²/sec
- Fast Flux = $3E6$ n/cm²/sec

Irradiation Studies

Experiments where materials are placed near or into the reactor core for activation analysis, radiation effects studies or radioisotope production

Location	Neutron Flux (n/cm ² /sec)
Pneumatic Tubes	4 E 12
In-Core	8 E 12
Flux Trap	4 E 13
Glory Tube	Not Applicable – Gamma Doses

Contacts

For additional information, please contact the Rhode Island Nuclear Science Center at 401-789-9391.