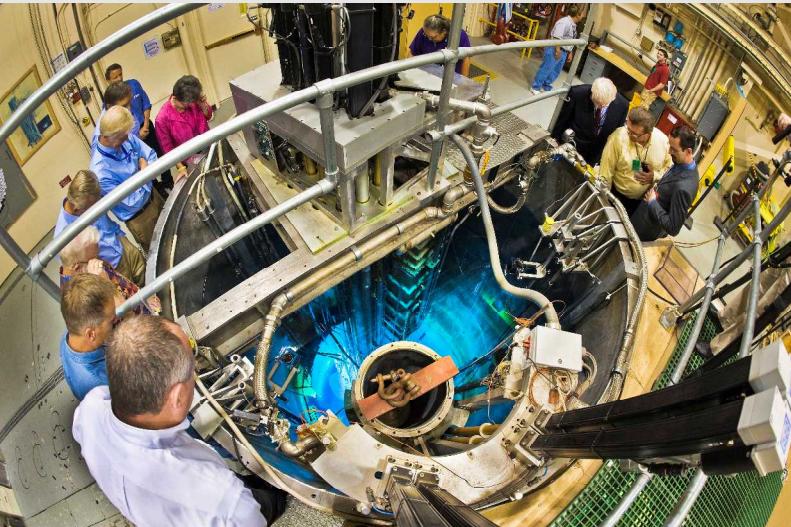


Exceptional service in the national interest



Overview of Sandia's Annular Core Research Reactor (ACRR)

Joshua Emmer

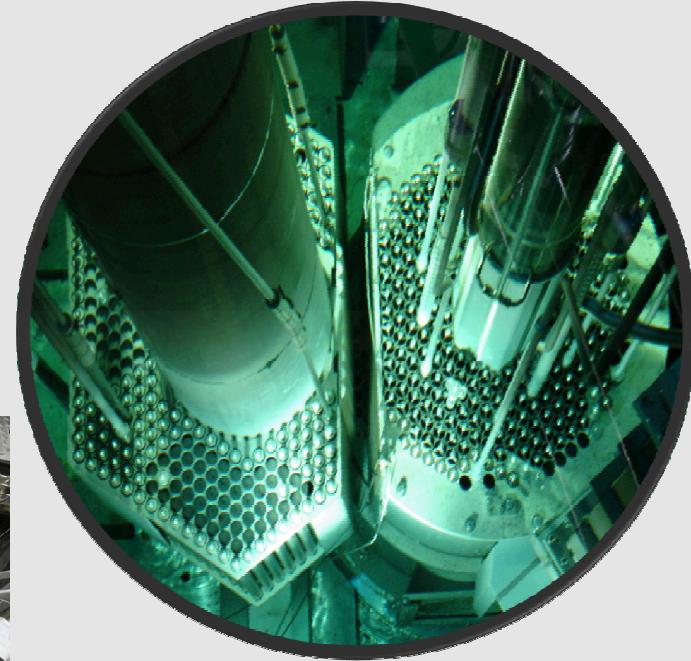
SAND #



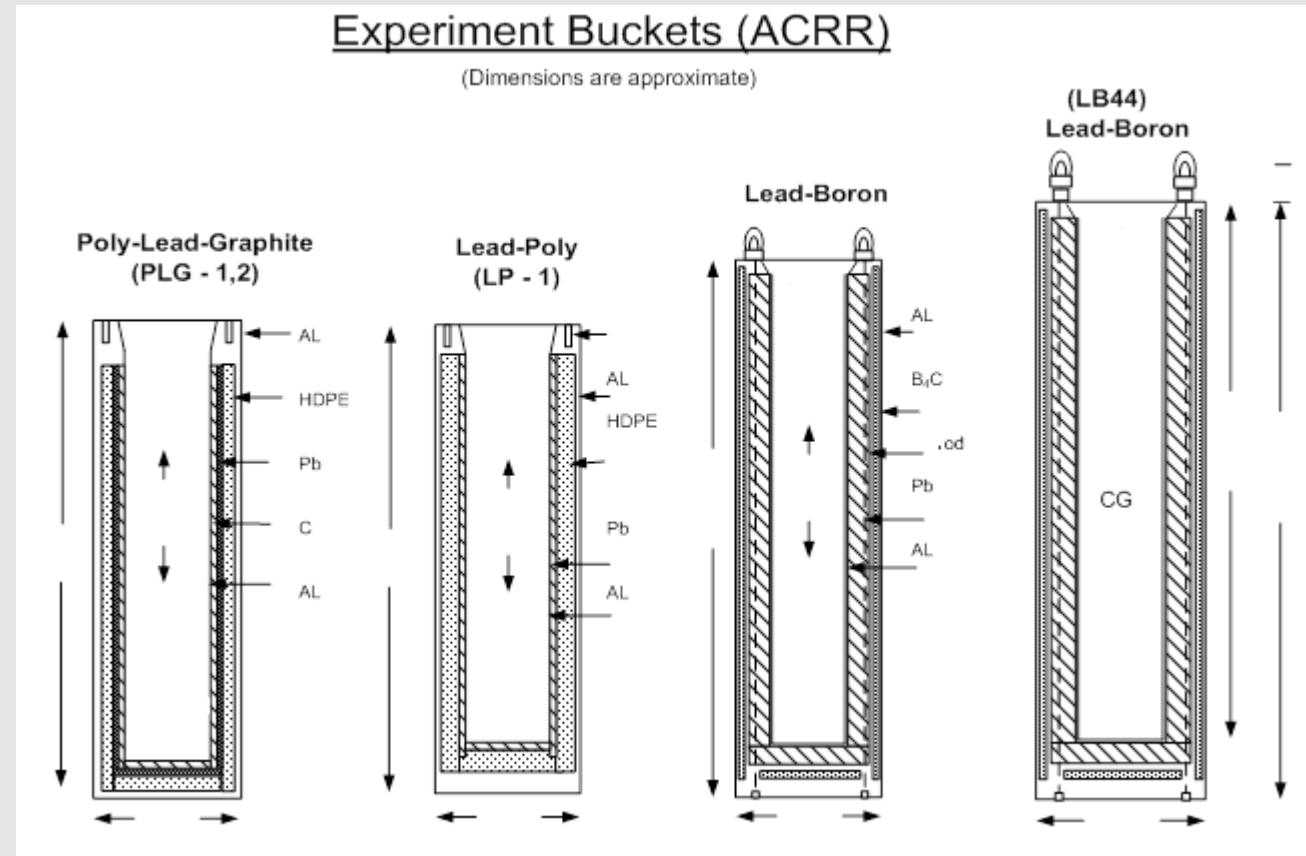
Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

Overview: Core

- ACRR Core
 - UO₂-BeO fuel elements
 - >\$3.00 Pulse ~ 30,000 MW, 300MJ, 7msec FWHM, 2msec Period
 - 2.4 MW Steady State, 4MW Potential
 - 2 Safety, 6 Control, 3 Transient rods
 - 9-inch Central Cavity
- FREC II Core
 - UZrH fuel elements
 - 20-inch Cavity



Spectrum Filters / Experiments

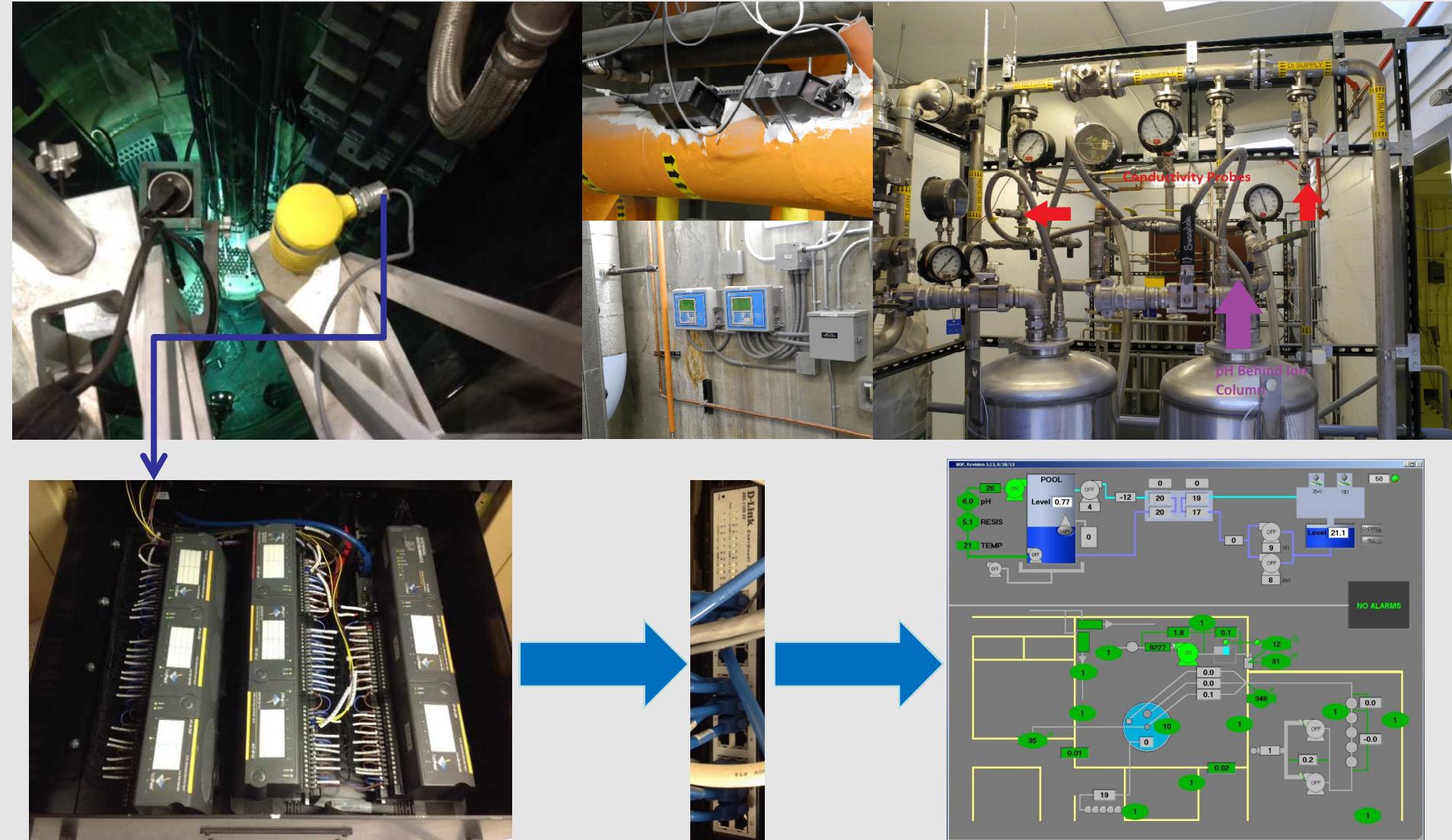


Control Room

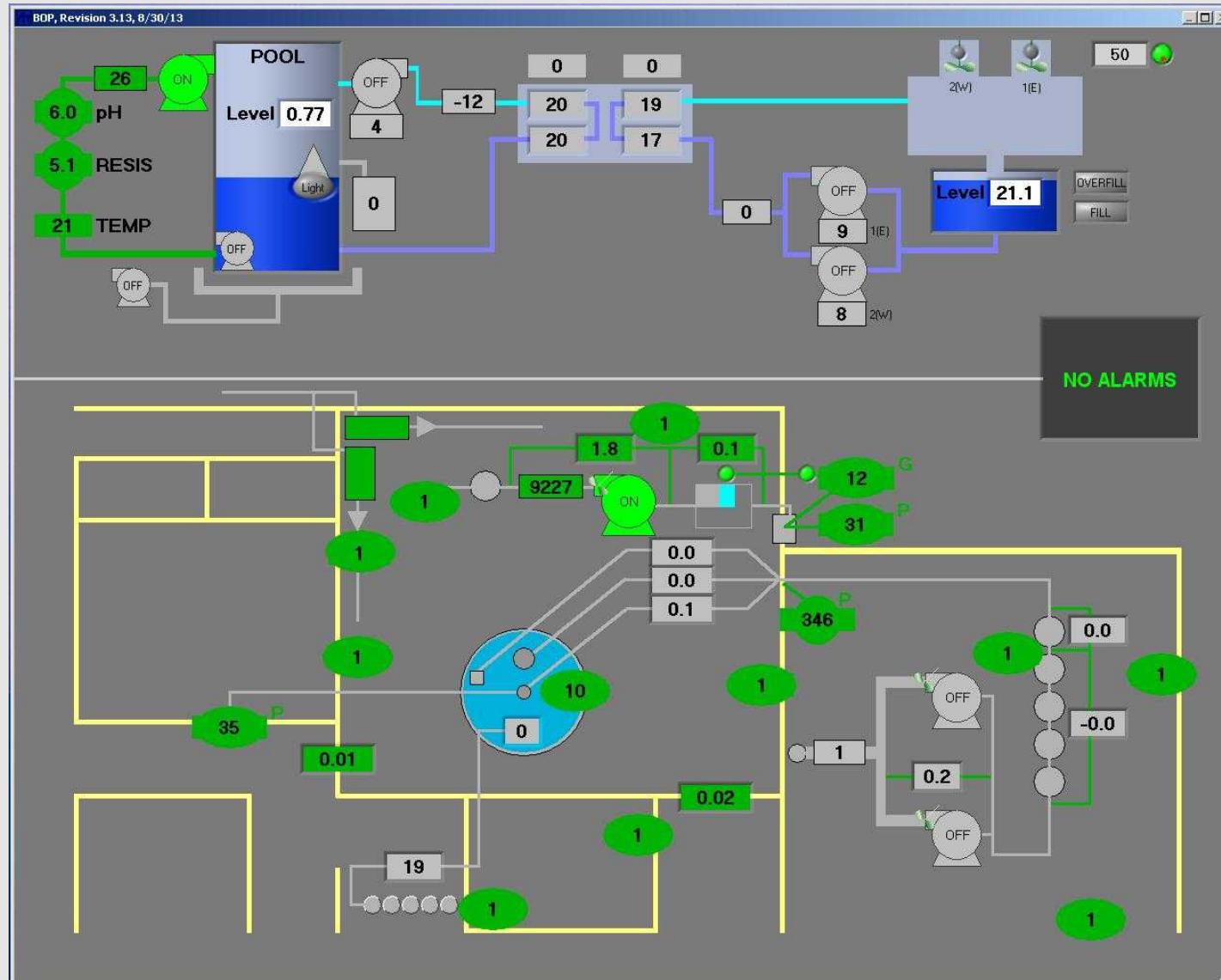


Process Instruments and I & C Inputs

-Quick Example-



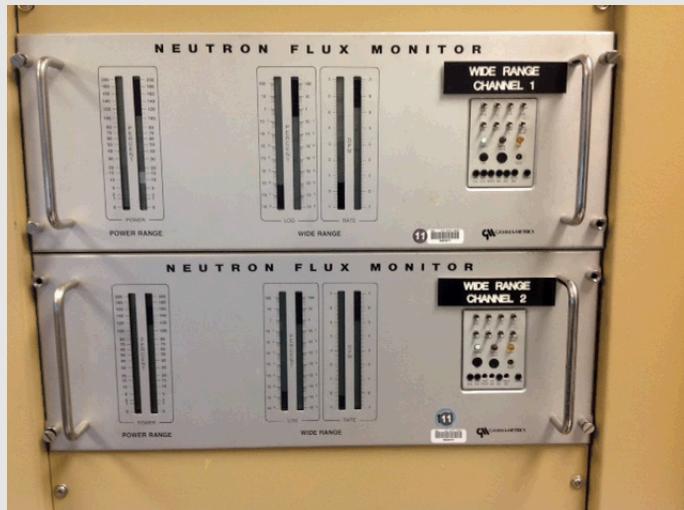
Balance of Plant Labview Display



Power and Fuel Temp Indication



Field Point



Field Point

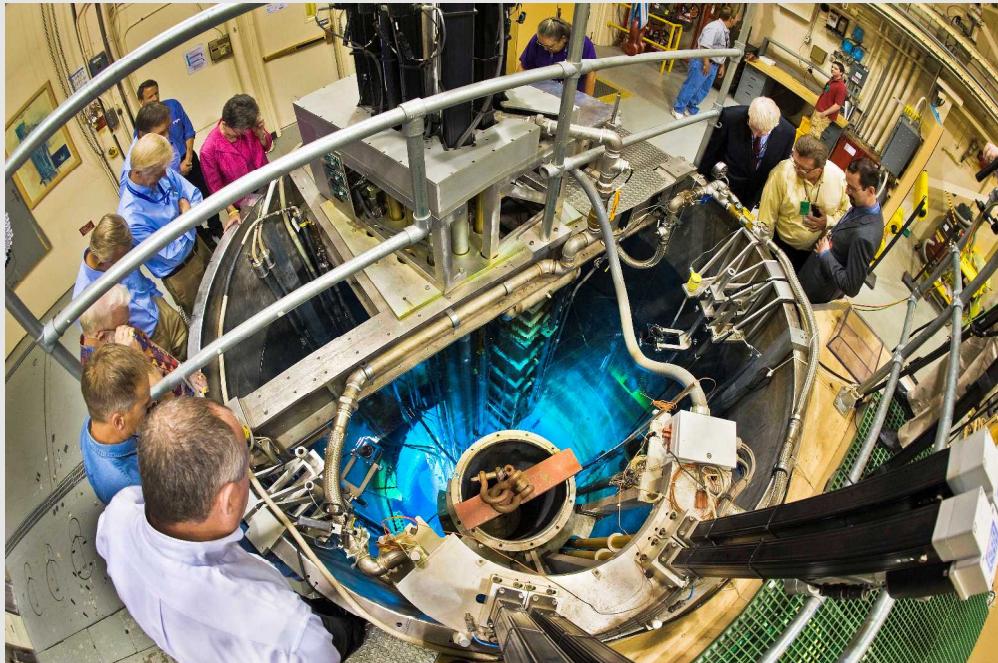


Recent and Upcoming Major Maintenance



- Recent:
 - Modification of Reactivity Control System
 - Spiral Staircase Project
- Upcoming
 - Reactivity Control System Upgrade
 - Purchase of new wide-range drawers
 - Transient Rod Pneumatic System Upgrade
 - Restoration of Neutron Radiography Capabilities

Questions?



Joshua Emmer

jemmer@sandia.gov

Sandia National Laboratories
Annular Core Research Reactor (ACRR)
P.O. Box 5800 MS 1142
Albuquerque, NM 87185-1142
USA
505-844-3073

[10,000 Pulse Video](#)