

HSS Independent Activity Report - Rev. 0**Report Number:** HIAR SNL-2013-03-18**Site:** Sandia National Laboratories**Subject:** Office of Enforcement and Oversight's Office of Safety and Emergency Management Evaluations Activity Report for Operational Awareness Oversight of Sandia National Laboratories**Dates of Activity :** 03/18/2013-03/20/2013**Report Preparer:** William Macon**Activity Description/Purpose:**

The purpose of this Office of Health, Safety and Security (HSS) Independent Oversight activity was to perform an operational awareness site visit to Sandia National Laboratories (SNL) to discuss Annular Core Research Reactor (ACRR) issues and improvement plan. SNL management also briefed Independent Oversight on engineered safety implementation.

Result:

1. Recent anomalous rod motion events at the ACRR have prompted an engineering change to the Reactivity Control System (RCS) that will involve both hardware and software modifications: (1) addition of a new reactor operator enable relay between the Programmable Multi-Axis Controller (PMAC) controlled enable relay and the Next Step control rod drive, (2) addition of new features to the LabVIEW code to monitor rod motion, and (3) modifications to the PMAC software to improve the logic of the code. Technical Area V (TA-V) Engineering evaluated the design of the proposed modifications, which are scheduled to be complete by early May. These modifications should adequately resolve the rod motion issues in the near term. For the long term, TA-V plans to replace the RCS over the next couple of years and will solicit proposals later this year.
2. Independent Oversight attended a briefing on engineered safety implementation that will transition all activity-level work at SNL to new work planning and control (WP&C) requirements. The schedule is to require all new work to meet the new engineered safety criterion starting in April and to update older documentation to the new requirements over the next year. SNL nuclear facilities comply with 10 CFR 830 and already meet or exceed the new corporate requirements, but safety at non-nuclear high hazard facilities should improve as line management and workers internalize the new system perspective.

HSS Participants

1 (lead). William Macon

ReferencesEE-ACRR-2013-003, *Design Evaluation of Rod Control Modification**Work Planning and Control Criteria for Safe Design and Operations*, Rev. 4, March 11, 2013Were there any items for HSS follow up? Yes No**HSS Follow Up Items**

1. Monitor resumption of ACRR operations in May 2013 and beyond to verify that rod motion issues are resolved.

2. Monitor implementation of new WP&C requirements at TA-V to ensure acceptable levels of nuclear facility safety.