

Site: Nevada National Security Site**Subject:** Office of Enforcement and Oversight's Office of Safety and Emergency Management Evaluations Activity Report for the Nevada National Security Site Operational Readiness Review of the Joint Actinide Shock Physics Experimental Research Facility**Dates of Activity :** 07/18/2011 – 07/28/2011**Report Preparer:** William Macon**Activity Description/Purpose:**

At the request of the National Nuclear Security Administration (NNSA) Service Center, the U.S. Department of Energy (DOE) Office of Health, Safety and Security (HSS) site lead for the Nevada National Security Site (NNSS) participated in the NNSA Operational Readiness Review (ORR) of the Joint Actinide Shock Physics Experimental Research (JASPER) Facility Restart conducted on July 18-27, 2011.

The site lead also visited the Device Assembly Facility (DAF) and Criticality Experiments Facility (CEF) at NNSS on July 28, 2011, as an operational awareness activity to discuss the startup plan for CEF, approved by NNSA on May 11, 2011.

Result:

The HSS site lead participated in the NNSA ORR for the JASPER facility restart review as a member of the review team and was responsible for reviewing the Management and Organization and the Management Systems functional areas. The site lead concluded that the Nevada Site Office (NSO) and the operating contractor adequately satisfied the 4 objectives and 20 criteria reviewed during the ORR.

The overall review was structured to verify the readiness to safely restart JASPER facility operations as a Hazard Category 3 facility and examined the performance of NSO and the operating contractor in 11 functional areas. The review identified one pre-start finding, three post-start findings, nine observations, and one noteworthy practice. These issues were fully documented in a final report presented by the ORR team leader to the NSO Manager on July 27, 2011. In summary, the ORR team recommended that JASPER facility operations be authorized to restart following NSO validating effective implementation of the corrective actions for the identified pre-start finding and NSO approval of corrective action plans for the post-start findings identified by the team.

While working as part of the review team, the HSS site lead independently observed that the NNSA ORR provides an adequate independent confirmation of readiness to restart operations of existing nuclear facilities that involve radioactive and/or fissionable materials in such form or quantity that a nuclear hazard potentially exists to the employees or the general public, in accordance with DOE O 425.1C, *Startup and Restart of Nuclear Facilities*. The ORR satisfied the readiness review objective. Although DOE O 425.1D has been in effect since April 2010, the ORR was completed under DOE O 425.1C in accordance with the ORR implementation plan dated July 12, 2011, since DOE O 425.1D was not yet implemented when the JASPER facility restart activities began in 2008.

The site lead also visited the CEF on July 28, 2011, and met with the NSO On-Site Program Representative, the Joint Nevada Program Office CEF Startup Manager, and the N-2 Deputy Group Leader/CEF Project Leader to discuss the CEF startup. The *Planet* critical assembly startup has been successfully completed and preparations for the *Comet* critical assembly startup have been completed in accordance with the approved startup plan. The site lead observed replacement of pressure switches on the *Flat-Top* critical assembly necessary to resolve its Safety Shutdown Mechanism pressure boundary issue prior to startup. The *Godiva* critical assembly startup is also on track to proceed.

CEF has had to address a Defense Nuclear Facilities Safety Board concern associated with the functional classification of the Human Machine Interface (HMI)/Control System. DOE-STD-3009-94, *Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Documented Safety Analyses*, Change Notice 3, includes a new requirement for structures, systems, and components that support specific administrative control (SAC) actions to be classified at the same functional classification as the SAC. Since the HMI/Control System

components were not designed and built in accordance with this requirement, NNSA is requiring additional reliability analysis to accept the as-built components, designed and constructed in accordance with national consensus codes and standards, as sufficient to ensure the necessary levels of nuclear safety. NNSA has determined that it is safe to startup and operate CEF with no additional compensatory measures.

HSS Participants	References
1 (lead). William Macon	

Were there any items for HSS follow up? Yes No

HSS Follow Up Items