

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Timothy Dwyer, Technical Director  
FROM: Wayne Andrews and David Kupferer, Site Representatives  
SUBJECT: Oak Ridge Activity Report for Week Ending October 7, 2011

**Microwave Casting.** This week, the site representatives observed B&W's Readiness Assessment (RA) for startup of the production microwave casting unit (see the 9/9/11 report). B&W completed all 161 affirmations that were developed to support the Readiness Certification Assurance process that was used to validate readiness efforts prior to initiating the readiness assessment. The RA team identified zero pre-start findings, zero post-start findings, ten observations and two weaknesses and recommended startup of the microwave casting operations. A final report is expected next week.

Operating procedures associated with performing microwave casting consist of six interrelated Job Performance Aids (JPAs), one of which is designated 'continuous use' and the other five of which are designated 'reference use' (see the 10/22/10 report).

**ORNL Building 3019 Update.** Last week a Plan of Action was approved for *Readiness Assessment for Programmatic Transfer of Zero Pulse Reactor (ZPR) Materials* from Building 3019 to the Device Assembly Facility at the Nevada Nuclear Security Site (NNSS) (see the 7/29/11 report). The activity involves only the canisters containing ZPR material and the actions necessary to prepare for a shipment.

In addition, the Oak Ridge Operations Office (ORO) finalized their *Oversight Plan of the Zero Power Reactor Programmatic Transfer for Isotek Systems, LLC*. The scope of this oversight assessment of the activity will be conducted under operating mode conditions. The contractor's Management Self Assessment (MSA) is tentatively scheduled to begin this month. The ORO oversight team will also execute the Department of Energy MSA. The first shipment to NNSS is scheduled to occur before the end of the calendar year.

**Criticality Safety.** In January, B&W's Criticality Safety Committee recommended that a phased implementation strategy should be developed for container simplification (see the 1/14/11 report). More specifically, the Committee urged that this implementation strategy should focus on the operating facilities rather than implementation as part of the Uranium Processing Facility project. The Committee's basis for its recommendation is that the large variety of containers currently used to store enriched uranium at Y-12 has led to a complex set of NCS requirements. In August, YSO performed an assessment of B&W's Criticality Safety Committee. YSO's assessment report noted that the Committee's attempt to accelerate B&W's container simplification effort appears to have stalled. In its report, YSO encourages B&W to reevaluate the Committee's recommendation and to address this longstanding issue.