DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 22, 2003

TO: J. Kent Fortenberry, Technical Director
FROM: Donald Owen, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending August 22, 2003

A. Y-12 Integrated Safety Management (ISM) Annual Review. The Y-12 Annual ISM Review field work and initial brief of results was completed. While noting several areas of improvement since past ISM Annual Reviews, the review team identified a number of issues in areas such as:
- Conduct of Operations (e.g., failure to follow identified work scope, lack of formality in some operations, and procedures that were not understood or could not be followed);
- effectiveness of corrective actions (e.g., over-reliance on e-mails, required reading and employee briefings, and premature closure of issues); and
- management assessments (e.g., need to incorporate "management walk-arounds" into assessment programs/schedules).
The review team's report will be issued in the next few weeks. (1-C)

B. Conduct of Operations. As reported on July 25th, YSO provided a rating of unsatisfactory for Conduct of Operations (COOP) for BWXT in the month of June. In YSO's monthly assessment for July, YSO again rated COOP as unsatisfactory. Numerous items were noted by YSO including failure to stop and report an unusual alarm, intentional defeat of a safety feature on a shearing machine, lack of labeling on hazardous energy isolation components, failure to address deficient equipment conditions, and deficient execution of a series of COOP re-enforcement training sessions. While some improvements were noted, the YSO assessment stated: "... The overall [COOP] problem must clearly be a focus by management and be addressed by a continuing long-term effort to keep these issues at the forefront of all personnel working in operating facilities..." (1-C)

C. Near Misses. This week, there were three instances where serious injury to personnel was fortunately avoided:
- Following a report of smoke in an area of Building 9202 and detection of hot spots, a fire department responder cut into an overhead duct thought to be a ventilation duct with a metal tool. This revealed an unexpected electrical feeder bar for a furnace in the room above (the feeder bar had overheated and burned insulation and structural wood support material). The duct was not labeled as containing a hazardous energy device. The bar was not energized as the furnace was shutdown due to a precautionary Building evacuation, but this was not a known or controlled factor in this response action. Fact-finding and causal analysis of the entire event associated with the overheated electrical feeder bar is in progress.
- An operator missed serious hand injury in the "alligator shear" operation in Building 9212. The machine is designed with a safety feature requiring hand and foot switch operation to run the shear, one cut at a time. The shear, however, unexpectedly deployed a second time without the switches engaged and while the operator was positioning material for the next cut with his hand. The operator barely pulled his hand clear but not before the shear cut the enclosure rubber glove and the operator's anti-contamination gloves. Initial fact-finding indicates that this problem with the safety feature has been observed numerous times during the past several years and was known to some personnel, but not known to this operator or his supervisor.
- A security guard was preparing to open a lock to a Building 9720-5 (Warehouse) loading dock door for an onsite nuclear material transfer. The guard was nearly pinned against the loading dock when the onsite transfer vehicle began backing up from a few feet away to the dock. There apparently was no audible backing signal from the vehicle and the driver had not seen the guard, but the guard was able to get away from the dock. Fact-finding continues. (1-C)