

Follow-up on the Administrator's April 2, 2009 Briefing on UPF - Clarification on Y-12
Internal Radiation Exposures

Following the Administrator's briefing NA-3.6 was tasked with providing additional information on the site's statement that "*Y-12 annually accounts for nearly 90% of the internal exposures received by personnel at all DOE facilities.*"

The statement is accurate. The 2007 Radiation Exposure and Monitoring System (REMS) 2007 Annual Report indicates that Y-12 personnel received a total internal dose of 49.4 person rem of the 52.4 total DOE person rem internal exposure (83 %). In 2006, Y-12 accounted for 93% of the DOE dose. The 2007 data is skewed somewhat by a single incident at LANL in which an individual received an internal dose of 7.5 person rem, (CMRR Glovebox Event) 13% of the DOE total. *Note: Naval Reactors data is not reported in REMS or included in these numbers.*

The Y-12 internal dose is spread across approximately 2400 workers. About 10% of those workers account for about half the total exposure, mainly hands-on production and maintenance workers. None of the internal exposures exceeded the site's 1.0 person rem Administrative Limit. The exposures ranged from 0 to 0.936 person rem.

The relative higher exposures at Y-12 are based on the plant configuration for enriched uranium operations, where PPE is relied on as the primary radiation control method rather than engineered confinement systems as proposed for the UPF. After initiation of UPF operations, Y-12 radiation protection personnel anticipate that internal exposure will drop from approximately 50 person rem to an estimated 2 person rem, mainly attributable to unmodernized depleted uranium operations.

As a result of current conditions, Y-12 uses about 18,000 single-use respirators a year, and has nearly half of the monitored population on a bioassay schedule (2400 of 5200 monitored individuals). These numbers should drop dramatically when UPF comes on line.