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EMBASSY SUITES CHICAGO DOWNTOWN MAGNIFICENT MILE HOTEL

CHICAGO, IL USA

Eliminating All HEU from Indonesia

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ABSTRACT

The Department of Energy's National Nuclear Security Administration (NNSA) and the Y-12 National Security Complex (Y-12) have been working with PT Industri Nuklir Indonesia (PT Inuki), an Indonesian medical isotope producer, since 2014 to disposition all highly enriched uranium (HEU) stored at the government-owned Research Center for Science and Technology (PUSPIPTEK) near Serpong, Indonesia. To eliminate the 1.5 kilograms of liquid HEU at the facility, Y-12 proposed a method to down-blend the leftover process solutions with a depleted uranium solution made on-site to render low-enriched uranium (LEU). This method is essentially irreversible since the uranium enrichment is degraded using a molecular level of intimate mixing in aqueous solution.

This cooperation was tied to a presidential commitment made at the 2016 Nuclear Security Summit to down-blend all remaining HEU in Indonesia by September 2016. While all unirradiated HEU was down-blended to LEU in March 2016, the campaign to down-blend the 1.4 kilograms of irradiated HEU began in late July 2016 and was completed in August, making Indonesia and all of Southeast Asia free of HEU.