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NEWS

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NRC Approves NNSA Tritium Production at TVA's Watts Bar Nuclear Station

Irradiation of Tritium Producing Burnable Absorber Rods

WASHINGTON, D.C. -- A significant milestone in the National Nuclear Security Administration's (NNSA) Stockpile Management Program to restore a domestic tritium production program was reached on September 23, 2002.

The U.S. Nuclear Regulatory Commission (NRC) approved a license amendment for the Tennessee Valley Authority's (TVA) Watts Bar Nuclear (WBN) station to irradiate Tritium Producing Burnable Absorber Rods (TPBARs) in the power reactor during normal operation.

NNSA's Commercial Light Water Reactor Program, selected as the primary means of tritium production by the Secretary of Energy in 1998, has developed, tested, and irradiated a Lead Test Assembly of 32 TPBARs (in the WBN reactor previously) and validated the design and operation of those TPBARs in earlier program development.

The Tennessee Valley Authority, partnering with NNSA and owner/operator of the WBN station, received the license amendment yesterday that permits production quantity irradiation of TPBARs in the WBN reactor.

NNSA's Acting Administrator Linton Brooks said this new production capability is important to the U.S. national security strategy. "We haven't had a domestic source of tritium since we shut down the 'K' Reactor at Savannah River in 1989, and we have been recycling our supply of tritium in order to meet our needs. Since that time, the tritium inventory has decayed at about 5.5% per year and we must begin producing tritium to maintain the stockpile. Producing tritium is a key element in the U.S. national security strategy to maintain an effective nuclear deterrent," he said.

"This is a significant milestone in the restoration of a domestic tritium source for the nuclear weapons stockpile program. A safe, secure and reliable stockpile requires that all warheads have tritium to operate as designed," Brooks continued.

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