Oak Ridge lab reactor to return to service

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The U.S. Oak Ridge (Tenn.) National Laboratory's high flux isotope reactor is expected to go back into operation this summer after $70 million in renovation.

The reactor, originally installed during the 1960s, has been idle since January as workers installed new equipment to expand and improve its scientific capabilities, the Knoxville (Tenn.) News-Sentinel reported Monday.

The high flux reactor complements the $1.4 billion Spallation Neutron Source, which recently produced its first neutrons.

Jim Roberto, the lab's deputy director for science and technology, said the high flux isotope reactor will be used for specific types of experiments, with initial tests of its cold source to begin within the month.

The testing of the cryogenic systems will be done in four stages, leading to the liquid hydrogen that ultimately will be used to chill the research chambers to minus 420 degrees Fahrenheit.

The reactor, which provides the world's highest, steady state concentration of thermal neutrons for experiments, also will undergo safety reviews as experts evaluate the 40-year-old reactor.

Lab officials told the News-Sentinel they expect the recent upgrades to prepare the reactor for another 30 years of use.