

PROGRESS REPORT ON THE CONVERSION OF THE PURDUE UNIVERSITY REACTOR, PUR-1, FROM HEU TO LEU

J.H. Jenkins, E.C. Merritt, and B. Revis
School of Nuclear Engineering
Purdue University, 400 Central Dr., West Lafayette, IN 47907

ABSTRACT

The effort for the conversion of the Purdue University Research Reactor, PUR-1, began in August, 2005, and will be completed in late 2007. Initial low-enriched uranium (LEU) assemblies will be inserted into the core in September, and the final core load is expected to be completed by October 2007. This paper summarizes the work performed to date, and the expectations for the work remaining to complete the project. The PUR-1 conversion has been a collaborative effort with Purdue, Idaho National Laboratory, Argonne National Laboratory participating under the auspices of the U.S. Department of Energy—Global Threat Reduction.

Construction of PUR-1 began in 1961, and it was initially licensed by the U.S. Nuclear Regulatory Commission in August of 1962 for operation at 1kW. The primary missions of the reactor are training, education and research. Each graduate of the School of Nuclear Engineering at Purdue University will have operated the reactor in two or more separate experiments as part of their curriculum. Students were used extensively throughout all phases of this conversion project, providing additional learning opportunities to complete their education experience.

