IAEA Activities in Support of HEU Minimization: 2016 Update

J. M. Dix, A. Borio Di Tigliole F. M. Marshall, S. M. Tozser
Department of Nuclear Energy, Division of Nuclear Fuel Cycle and Waste Technology,
Research Reactor Section
International Atomic Energy Agency, Vienna International Center,
PO Box 100, 1400 Vienna, Austria

ABSTRACT

The International Atomic Energy Agency (IAEA) has been involved for more than thirty years in supporting international nuclear non-proliferation efforts associated with reducing the use of highly enriched uranium (HEU) in research reactors and other civilian activities. Upon Member States’ requests, IAEA projects have directly supported HEU minimization efforts by providing assistance related to fuel conversion from HEU to low enriched uranium (LEU), HEU fuel shipments to the country of origin, and reduction of HEU use in other applications. Current activities on the subject include a publication on U-Mo fuel development, conversion and removal assistance for miniature neutron source reactors, and support on non-HEU production of molybdenum-99 (Mo-99). Future efforts will be designed to match the requirements of international programmes as they evolve. This paper presents the current status of IAEA efforts to support Member States’ in achieving their non-proliferation objective to minimize the use of HEU in civilian applications.