Niowave’s Domestic Production of Mo-99 from Uranium to Start in 2015

Terry L. Grimm, Stephen S. Barnard, Chase H. Boulware, Amanda K. Grimm, Jerry L. Hollister, Mayir Mamtimin, and Valeriia N. Starovoitova
Niowave, Inc., 1012 N. Walnut St., Lansing, MI 48906 – USA

ABSTRACT

The lack of a domestic supply of Mo-99 and the current practice of using weapons grade uranium to produce Mo-99 led Congress to pass the American Medical Isotope Production Act in 2013. This legislation establishes a program to develop domestic production of Mo-99 by non-federal entities, and to phase out the use of highly enriched uranium for Mo-99 production. In March 2015 the Nuclear Regulatory Commission approved Niowave’s license to produce Mo-99 from low enriched uranium using a superconducting electron linac. The first domestic production of small quantities of Mo-99 will occur toward the end of 2015. Large scale production and distribution of Mo-99 will follow in 2016-17. Chemical processing of the uranium targets will produce Mo-99 of the same quality as the existing supply chain, allowing a smooth transition to a domestic source.