

Isotope Availability Task Group Releases Draft Report

An SNM task group has been working over the past several months to put together a draft report of possible new ^{99}Mo suppliers for the U.S. market. The initiation of this project, the mission of which is to research alternative means for isotope production within the United States, began with the late 2007 shutdown by the Atomic Energy of Canada Limited (AECL) of the aging National Research Universal reactor. At that time, it was noted that U.S. capacity for domestic reactor radioisotope production in support of nuclear medicine had declined sharply over the past decade. This, coupled with recent efforts to curtail the use of highly enriched uranium in radioisotope production as a nonproliferation strategy and to deter terrorism, now poses a significant threat to ^{99}Mo availability within the United States. The subsequent cancellation in May 2008 of the MAPLE reactors at the Chalk River Laboratories has made the need for an alternative domestic source for ^{99}Mo production more acute. No facilities in the United States are currently dedicated to manufacturing ^{99}Mo for $^{99}\text{Mo}/^{99\text{m}}\text{Tc}$ generators.

The draft report does not contain suggested solutions to this problem. Instead, it provides a summary of discussions held with 6 potential sources that have the physical and intellectual resources to develop ^{99}Mo production capabilities, the locations of those facilities, and estimates on development/production costs. The facilities include: University of Missouri Research Reactor Center (Columbia), Australian Nuclear Science and Technology Organisation (ANSTO) and ANSTO Radiopharmaceutical and Industrials (Lucas Heights, New South Wales), Babcock & Wilcox Technical Services Group (Lynchburg, VA), the Annular Core Research Reactor at Sandia National Laboratories (Albuquerque, NM), the resources of the Department of Energy National Nuclear Security Administration (Washington, DC), and the AECL and MDS Nordion (Ottawa, Ontario, Canada). The task group will continue its research over the next few months and will be adding information to the report as necessary.

When the draft report was released, the task group had spoken to 80%–90% of the organizations identified as having a realistic opportunity in the near- to mid-term to supply ^{99}Mo to the domestic market. The task group will continue to broaden the current discussion by speaking to other producers of U.S. Food and Drug Administration (FDA)–approved medical radioisotopes as well as those potentially capable of producing FDA-approvable material. During the next phase of this project, the task group will begin to explore the technical side of this issue, as well as the feasibility of different options for production of ^{99}Mo , including industry consortiums, public/private partnerships, government funding, and other programs. Task group members anticipate that a larger consortium, with SNM as an active member, will make recommendations regarding a long-term solution to this problem. The task group will continue to develop as much background material as possible to facilitate a reasoned approach to this dilemma. The upcoming national elections may have an effect on the future course, because changes in the administration and in Congress may affect government participation.

The task group is anticipating the release of a new National Academy of Sciences report, *Medical Isotope Production Without Highly Enriched Uranium*, and will work to incorporate the recommendations and findings made as it moves into the second phase of the project.

A copy of the draft report is available on the SNM Web site in the Government Relations section.



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Correction

In the article “Imaging biomarkers, an industry perspective,” in the June issue of Newsline (2008;49:29N), Herceptin was incorrectly described as approved for neoadjuvant therapy. Herceptin has been approved by the U.S. Food and Drug Administration for use in both the metastatic and adjuvant settings for women with HER2-positive breast cancer. The editor of Newsline thanks Jonathan R. Potter, senior vice president, Fleishman-Hillard International Communications (New York, NY), for submitting this correction.