

Molybdenum-99 from South Africa

In response to our article on "The Future Supply of Molybdenum-99" (*Newsline*, November 1995, 15N), the Atomic Energy Corporation of South Africa Limited (AEC) alerted us to the fact that their reactor, which is located near Pretoria at Pelindaba, is also capable of extracting the isotope which is used in ^{99m}Tc generators. AEC's SAFARI-1 reactor, which was commissioned in 1965, is a 20 MW Oak Ridge type swimming pool reactor capable of producing ^{99m}Mo on two lines. AEC writes that "local ^{99m}Mo requirements have been consistently satisfied since April 1993 and export supply contracts have been reliably serviced for the past 18 months.... At this stage, we have a demonstrated production capacity of 1000 Ci per week. We are, however, currently expanding this capacity and our short term objective is

to supply 15%-20% of the current world market on a regular basis, and to be able to offer at least an additional 1000 Ci to meet emergency backup situations which could arise in the foreseeable future." ■

The Collaborative Birth of Technetium

In other reader-response news, Jane Scheiber, director of College Relations at the University of California, Berkeley reminded us that the reference to Emilio Segre's receipt of ^{99m}Mo targets from the Lawrence Cyclotron at Berkeley in our sidebar on "The Birth of Technetium—By Mail Order" (*Newsline*, November 1995, 22N) did not present the relationship between the two locations as accurately as possible. Ms. Scheiber writes that "the article overlooks

the critical role of Glenn T. Seaborg, PhD in discovering the radioisotope in collaboration with Dr. Segre." Dr. Seaborg's own account of the discovery of the element, as described in *JAMA* last spring ("My Career as a Radioisotope Hunter, *JAMA* 1995;273:961-964) describes his collaboration with Segre following the Italian's emigration to the United States. After duping the Italian government into thinking that traveling to the United States would bring great fame to Italy for discovering the radioisotope, Segre sought out Seaborg at Berkeley because of his previous radioisotope discoveries with John Livengood. Seaborg and Segre were able to build upon Carlo Perrier's (Segre's original Italian collaborator) synthesis of technetium-43 through radioactive decay studies and extract the radioisotope which today is used in millions of diagnostic procedures each year. ■

OVERHEARD

What was formed in 1995 was the emotional intelligence to deal with and adapt to a changing and unenvisioned healthcare environment. What was storming was how persons distanced from healthcare thought they knew better than those of us in the trenches how healthcare should be delivered. Perhaps also a storm was why the profession did not self-correct before the winds of change were upon us. And, what was norming was how technology must be focused on patient outcome, how imaging management must concentrate on quality-service factors for better patient care, how radiology is a high-touch medical discipline, and how the intervention of hospital administrators is now posing more opportunities than roadblocks to the future of imaging and therapy.

*1995: Forming, Storming and Norming
Administrative Radiology (December 1995)*

Research presented at the recent annual meeting of the American Heart Association indicates that myocardial perfusion imaging may provide important information about women's risk of future heart attacks. "In a study of

1262 men and 314 women with stable angina, we found that abnormal perfusion scans in women were associated with higher relative risk for cardiac events than men with an abnormal scan, regardless of the presence of actual disease," said D. Douglas Miller, MD. . . . "This finding may also allow us to accurately risk-stratify women based on their test results, enhancing our ability to make patient management and treatment decisions."

Radiologic Technology (January/February 1996)

To a biological molecule, a nanoliter might as well be an ocean. But to molecular biologists, one-billionth of a liter is a volume so restricted that accurate chemical analysis can become an exercise in frustration. To overcome such difficulties, Dean L. Olson and Jonathan V. Sweedler, chemists at the University of Illinois at Urbana-Champaign and their colleagues have fabricated a microcoil small enough to permit accurate molecular analysis of tiny samples with nuclear magnetic resonance.

Science News (SN, January 6, 1996)