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FOR IMMEDIATE RELEASE

## **Harper Awarded Australian Government Nuclear Contract**

Buffalo, NY – Harper International, world leader in thermal processing solutions for advanced materials, has been awarded a contract to supply a hot cell Rotary thermal processing system for use to treat waste from nuclear medicine production at the Australian Nuclear Science and Technology Organisation (ANSTO). ANSTO's Synroc technology has been developed to provide a safe, secure matrix for the immobilization and final disposal of radioactive waste.

ANSTO's Synroc technology will be used to manage radioactive wastes from the production of the radioisotope Molybdenum-99 (Mo-99). Mo-99 is used for 80 percent of nuclear medicine procedures including the diagnosis of cancers, heart disease, muscular and skeletal conditions.

Calcination is a key step in the Synroc process. Harper's Rotary thermal processing system includes: an advanced heating element design for increased robustness and ease of remote operation and maintenance, an enhanced modular design of components for ease of remote maintenance in a hot cell and in compliance with hot cell radioactive environment requirements for safety, security and reliability.

"In addition to waste from nuclear medicine production, we foresee that this new technology can also benefit other applications in the future such as processing spent fuel waste from other international power generating nuclear reactors," commented Prasad Apte Ph.D., Director of Technology at Harper International.

Along with waste remediation, Harper offers technology solutions such as Pusher and Rotary furnaces for nuclear materials processing applications including sintering  $UO_2$  pellets for reactor fuel rods, oxidation of  $UO_2$  pellets, swarf, and powder to  $U_3O_8$ , denitration of Uranyl nitrate and hydroflourination of  $UO_2$  pellets.

ANSTO is one of Australia's largest public research organizations and is the center of Australia's nuclear science capabilities and expertise - operating the nation's only nuclear reactor, OPAL. Australian Mo-99 is produced with low enriched uranium (LEU) target plates in the LEU fueled OPAL reactor, leading the global push toward nuclear non-proliferation. Learn more about ANSTO <a href="https://example.com/here.">here.</a>

## **About Harper International**

Harper International is a global leader in complete thermal processing solutions and technical services essential for the production of advanced materials. From concept to commercialization, from research scale to full production line operations, Harper is perpetually on the cutting edge of the most innovative furnace and oven designs in the world. For decades, they have pioneered some of the most unique, customized systems available, with a focus on processing materials at high temperatures up to 3000°C and in non-ambient atmospheres. For additional information, please visit <a href="https://www.harperintl.com">www.harperintl.com</a> or email <a href="mailto:info@harperintl.com">info@harperintl.com</a>.