

BRENTWOOD, Tenn. , Aug. 17, 2023 /PRNewswire/ -- MicroNuclear©, LLC, announced that it has the exclusive license to patent #11,708,914. It is for the latest technology facilitating development of molten salt systems.

"Molten salt environments exist at high temperatures and are aggressive to fine machine surfaces such as valve sealing surfaces. The new technology employs a thermal system that removes heat from the valve causing a local accumulation of frozen salt that restricts flow. Increased heat transfer increases restriction and vice versa, without reliance on the metal-to-metal seal. The valve technology is applicable to any fluid that experiences liquid to solid phase change and preliminary laboratory tests have been completed using water and liquid nitrogen to reduce the temperature," explained Paul Marotta, co-founder of MicroNuclear© and co-inventor of the technology. Other patent co-inventors include Piyush Sabharwall, Idaho National Laboratory, and Richard Christensen, CTO of MicroNuclear, LLC (formerly with the University of Idaho).

Target markets include advanced nuclear reactor designs, solar salt, salt energy storage and fusion, and provide MicroNuclear with another competitive advantage.

About the Molten Salt Nuclear Battery©

The MsNB© is a molten mix of nuclear fuel and a chemical salt. It uses fluoride salt because of its desirable characteristics when mixed with either Uranium or Plutonium fuel. The MsNB uses natural circulation, moving the molten salt nuclear fuel through the reactor without the need for pumps or valves, enhancing safety, reliability, and reducing cost. The MsNB is compact, factory produced, and transportable. It is targeted for critical infrastructure applications such as municipal buildings, hospitals, and military bases. It is ideal for industrial applications, desalination facilities, hydrogen production, and remote villages, providing reliable, sustained, and uninterrupted energy. MsNB development is mature, leading prototype production. Learn more at www.micronucleartech.com.