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# **Perma-Fix Environmental Services Enters Agreement with Italian National Agency for New Technologies, Energy and Sustainable Economic Development to Collaborate on Nuclear Technologies Including Process to Produce Technetium-99**

ATLANTA, GA -- (Marketwired) -- 01/16/18 -- ***Perma-Fix Environmental Services, Inc. (the "Company")*** (NASDAQ: PESI) today announced an agreement to collaborate with the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) to advance a variety of technologies including commercialization of Perma-Fix Medical, S.A.'s process to produce Technetium-99 (Tc-99m), the most widely used medical isotope in the world. Perma-Fix Medical, S.A. is a majority-owned subsidiary of Perma-Fix Environmental Services, Inc.

The agreement was signed by Federico Testa, ENEA Commissioner, and Dr. Louis Centofanti, Founder and EVP of Strategic Initiatives for Perma-Fix Environmental Services, as well as Chairman of Perma-Fix Medical, S.A., in the presence of members of the US Embassy, the Higher Institute of Health and the Ministries of Economic Development, Foreign Affairs and International Cooperation.

Under the agreement, the parties will work to advance a variety of Perma-Fix's nuclear technologies and processes in Italy. These projects include the production of Tc-99m utilizing the TRIGA RC-1 research reactor, made available by ENEA, and Perma-Fix's patented process, in order to address the global need for a safer, more reliable, more cost-effective and uranium-free production process. Following irradiation of materials in the TRIGA RC-1 research reactor, technetium generators will be supplied to nuclear medicine centers across Italy. It is anticipated that the quantities of medical isotopes produced by TRIGA in the Casaccia ENEA Center will be sufficient to supply a large percentage of the national requirements for Tc-99m.

Dr. Louis F. Centofanti, Chairman of Perma-Fix Medical, commented, "We are excited to partner with ENEA on a number of initiatives going forward. ENEA brings extensive knowledge, expertise and resources, including its TRIGA- RC-1 research reactor. One aim of this partnership is to help Italy establish its own supply and domestic production of Tc-99m. Today, nearly all of the world's supply of Tc-99m comes from the thermal fission of

enriched uranium targets in a small number of highly specialized reactors. The current process is costly and has proven an unreliable source of radioactive material leading to severe worldwide shortages. Unlike conventional processes, ours allows for local production, using standard research and commercial reactors, thereby eliminating the need for special purpose reactors. The new process encompasses the full production cycle, from reactor to final medical supply, and can be easily deployed around the world. We believe Perma-Fix's process is ideally suited for the Italian market and we are excited to help advance this process."

ENEA Commissioner Federico Testa, commented, "With this agreement, ENEA plans to put at the service of the Country, those skills and resources developed in the nuclear sector since the 1950s, into new areas such as health care. The goal is to build a unique center of excellence in Italy, including the study of radioisotopes and the production of next generation radiopharmaceuticals, which is of particular interest at the national and international levels."

By way of background, Tc-99m is used in 80-85% of the 25 million diagnostic nuclear medical procedures each year in the U.S. alone, and allows medical practitioners to image internal body organs. Common procedures include: cardiac imaging; cancer detection bone scans; gastrointestinal issues; and imaging of the brain, kidney, spleen and infections.

To overcome past issues with neutron activation of Molybdenum, Perma-Fix has developed a specialized resin that is radiation resistant and holds large quantities of Molybdenum, but at the same time releases almost 90% of the Tc-99m as it forms from the decay of Mo-99. The resin, loaded with the activated Mo-99, is placed in a Technetium generator and slowly washed with a saline solution. The eluent solution containing Tc-99m meets USP and EUP standards for Technetium.

### ***About Perma-Fix Environmental Services***

Perma-Fix Environmental Services, Inc. is a nuclear services company and leading provider of nuclear and mixed waste management services. The Company's nuclear waste services include management and treatment of radioactive and mixed waste for hospitals, research labs and institutions, federal agencies, including the Department of Energy ("DOE"), the Department of Defense ("DOD"), and the commercial nuclear industry. The Company's nuclear services group provides project management, waste management, environmental restoration, decontamination and decommissioning, and radiological protection, safety and industrial hygiene capability to our clients. The Company operates three nuclear waste treatment facilities and provides nuclear services at DOE, DOD, and commercial facilities, nationwide.

Please visit us on the World Wide Web at <http://www.perma-fix.com>.

### ***About Perma-Fix Medical***

Perma-Fix Medical S.A. was formed to develop, obtain FDA and other regulatory approval and commercialize a new process to produce Technetium-99 (Tc-99m), the most widely used medical isotope in the world. The new process is expected to solve worldwide shortages of Tc-99m as it is less expensive, does not require the use of government-subsidized, weapons-grade materials and can be easily deployed around the world using

standard research and commercial reactors, thereby eliminating the need for special purpose reactors. Please visit us on the World Wide Web at <http://www.medical-isotope.com>.

*This press release contains "forward-looking statements" which are based largely on the Company's expectations and are subject to various business risks and uncertainties, certain of which are beyond the Company's control. Forward-looking statements generally are identifiable by use of the words such as "believe", "expects", "intends", "anticipate", "plans to", "estimates", "projects", and similar expressions. Forward-looking statements include, but are not limited to: commercialization of Perma-Fix Medical, S.A.'s process to produce Technetium-99 (Tc-99m), the most widely used medical isotope in the world; following irradiation of materials in the TRIGA RC-1 research reactor, technetium generators will be supplied to nuclear medicine centers across Italy; anticipate that the quantities of medical isotopes produced by TRIGA in the Casaccia ENEA Center will be sufficient to supply a large percentage of the national requirements for Tc-99m; and Perma-Fix's process is ideally suited for the Italian market. These forward-looking statements are intended to qualify for the safe harbors from liability established by the Private Securities Litigation Reform Act of 1995. While the Company believes the expectations reflected in this news release are reasonable, it can give no assurance such expectations will prove to be correct. There are a variety of factors which could cause future outcomes to differ materially from those described in this release, including, without limitation, future economic conditions; industry conditions; competitive pressures; our ability to apply and market our new technologies; the government or such other party to a contract granted to us fails to abide by or comply with the contract or to deliver waste as anticipated under the contract; inability to win bid projects; that Congress fails to provides continuing funding for the DOD's and DOE's remediation projects; and the "Risk Factors" discussed in, and the additional factors referred to under "Special Note Regarding Forward-Looking Statements" of, our 2016 Form 10-K and Forms 10-Q for quarters ended March 31, 2017, June 30, 2017 and September 30, 2017. The Company makes no commitment to disclose any revisions to forward-looking statements, or any facts, events or circumstances after the date hereof that bear upon forward-looking statements.*

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