June 18, 2021

Perma-Fix Announces New Therma-Fix Gen³, Third Generation Vacuum Thermal Desorption System to Treat Problematic Waste Streams

New system designed to increase capacity and lower treatment costs

ATLANTA, June 18, 2021 (GLOBE NEWSWIRE) -- **Perma-Fix Environmental Services, Inc. (NASDAQ: PESI)** (the "Company") today announced that it has begun development, design and construction of its new Therma-Fix Gen^3, third generation vacuum thermal desorption system. The new system provides a unique and full treatment cycle for a variety of problematic waste streams including mercury contaminated wastes; soils, solids and sludges containing solvents (volatile and semi-volatile); activated charcoal and spent carbon; industrial pipeline naturally occurring radioactive material (NORM) waste; and other challenging waste streams.

Therma-Fix Gen^3 heats low level waste (LLW) and mixed low-level waste (MLLW) to remove organics and recollects organics and mercury as condensate. The vacuum allows lower temperatures to facilitate removal. Remaining solids are tested for Land Disposal Restrictions (LDR) compliance and condensate is treated thermally. The electrically heated batch oven system has an operating range of up to 1,400 °F and utilizes a tray system to permit discreet segregation of customer waste. The methodology supports processing of as little as one pound to 1,500 pounds per batch, covering a wide range of waste matrix types and mitigates concerns of cross contamination.

Therma-Fix Gen^3 Overview and Capabilities:

- More effective and efficient waste treatment with superior heat control
- Greater treatment capacity of up to 1,500 pounds per day
- Cleaner and safer solution that complies with the U.S. Environmental Protection Agency (EPA) waste control minimization program and minimizes landfill disposal footprint
- Batch tray system prevents cross contamination
- Cost-effective solution with higher capacity and lower costs

Additional Thermal Treatment Capabilities Currently Operating at Perma-Fix facilities:

- **Bulk Processing Unit (BPU)** - Large, refractory lined oven heated to 1,800°F, sufficient to thermally break down all combustible material prior to disposition and achieve a 100:1 volume reduction. Treats LLW liquid/sludge/solids and produces a

stable waste residue suitable for disposal at all permitted disposal facilities.

- **Boiler Industrial Furnace (BIF)** - Provides final destruction of organic contaminated liquids for MLLW and LLW streams and volume reductions of up to 100:1.

Mark Duff, Chief Executive Officer, stated “We are pleased to begin construction of our new third generation ThermafixGen^3 unit and look forward to launching the system in October 2021. This first-in-kind system utilizes a unique vacuum thermal desorption technology and represents an important milestone for Perma-Fix as it expands the capacity of the system for a variety of problematic waste streams. Drawing on Perma-Fix’s many years of technological advancements and desorption-specific waste processing experience, the ThermafixGen^3 system provides more efficient and cost-effective waste treatment for existing and future clients. The advantage of the new technology is its ability to separate customers’ waste with superior volume reduction capability and greater treatment capacity, thereby providing a cradle to grave solution.”

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 U.S Department of Energy (“DOE”), the U.S 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, new build construction, and radiological protection, safety and industrial hygiene capability to our clients. The Company operates four nuclear waste treatment facilities and provides nuclear services at DOE, DOD, and commercial facilities, nationwide.

Please visit us at http://www.perma-fix.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”, “plan to”, “estimates”, “projects”, and similar expressions. Forward-looking statements include, but are not limited to: launching system in October 2021. 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 or terminates existing contracts; Congress fails to provides funding for the DOD’s and DOE’s remediation projects; inability to obtain new foreign and domestic remediation contracts; impact of COVID-19; and the additional factors referred to under “Risk Factors” and "Special Note Regarding Forward-Looking Statements" of our 2020 Form 10-K and Form 10-Q for quarter ended March 31, 2021. 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.

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

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Source: Perma-Fix Environmental Services, Inc