QuakeWrap Wins \$1M Federal Research Grant to Develop Pipeline Repair

QuakeWrap Inc. to develop a greener, less intrusive repair method for larger gas and oil transmission pipelines for US DOT.

(FOR IMMEDIATE RELEASE) TUCSON, Ariz. (March 15, 2022) – The "Internal Repair of Steel Transmission Pipelines" proposal from Tucson-based QuakeWrap Inc. was awarded \$1,000,000 by the U.S. Department of Transportation SBIR (Small Business Innovation Research) program. The award is for the second phase, following the successful proof of concept that was demonstrated during the first phase.

Quakewrap is to develop a greener, less intrusive repair method using fiber reinforced polymer (FRP) for larger gas and oil transmission pipelines. The proposed repair method, called SuperLaminate™ by QuakeWrap, will utilize existing launch stations or access sites used for cleaning and inspection of oil and gas pipes.

According to PHMSA, there are over 319,000 miles of existing gas pipelines for gathering and transmission of gas. The goal of the QuakeWrap research is to find a commercially viable solution that rehabilitates distressed and leaking pipes proactively, before they fail. The solution needs to be feasible, economic, and deployable with minimal impact to operations.

The U.S. DOT is one of 11 federal agencies that participate in the SBIR program supporting national research and development by small businesses. In its 27-year history, QuakeWrap has been awarded SBIR support from the National Science Foundation (NSF), the U.S. Department of Agriculture (USDA), the U.S. Environmental Protection Agency (USEPA) and this year from U.S. DOT.

This is a fantastic opportunity for adapting our infrastructure renewal solutions to the oil and gas industry, where proactive pipeline integrity management is essential with respect to preventing catastrophic failures and methane leaks, says Prof. Mo Ehsani, Founder and President of QuakeWrap.

A big part of the attraction of QuakeWrap's proposal is the trenchless aspect, says Dr. Firat Sever, Principal Investigator and Pipeline Division Manager for QuakeWrap, Inc.

Most oil and gas transmission pipes are repaired externally by excavating around a damaged or leak site, including preparation of the pipe surface, and mechanically installing a repair product such as a clamp or wrap on the outside of the pipe, says Dr. Sever and he adds:

"The available repair methods are disruptive, require access by destructive means and are costly in terms of time and resources. QuakeWrap's proposed greener, less intrusive solution has the potential to be installed without the need for any excavation or accessing the pipe by damaging means".

We acknowledge the potential of this new technology in addressing oil and gas transmission line failures and methane leaks by non-destructive means, says Dr. Sherry Borener, Senior Research Advisor, at Pipeline and Hazardous Materials Safety Administration (PHMSA), a division of USDOT.

About QuakeWrap Inc.

QuakeWrap Inc. is the original innovator and developer of fiber reinforced polymer (FRP) systems for infrastructure repair and renewal. QuakeWrap's President/CEO, Prof. Mo Ehsani, Ph.D., PE, SE, has spent over 3 decades pioneering advanced construction technologies utilizing FRP. QuakeWrap's patented FRP products – including the innovative PileMedic® and PipeMedic® repair systems – are field-proven to rehabilitate, retrofit and strengthen assorted structures worldwide, with award-winning results.

QuakeWrap solutions represent an extraordinary improvement over traditional infrastructure repair methods. The company strives to create new innovative products that result in higher quality, faster construction time and a lower cost. More info can be found at quakewrap.com and pipemedic.com Quakewrap, the global leader for innovation in infrastructure renewal technologies, is the recipient of a highly competitive national small business award supporting research and development of innovative solutions that solve major transportation challenges.

AT A GLANCE

Arizona-based QuakeWrap Inc. wins U.S. DOT SBIR Phase II grant in the research category of "Internal Repair of Steel Transmission Pipelines (20-PH2)"

Title of Research Proposal

No-Dig Point Repair Technology for Steel O&G Pipelines

Award Amount:

\$1,000,000

Principal Investigator:

Veysel "Firat" Sever, Ph.D., PE, Pipeline Division Manager, QuakeWrap, Inc,

Technical Leader:

Owen Yan, Ph.D., Civil (Design) Engineer, Pipeline Division, QuakeWrap Inc.

Key Advantage of Technology

Potential to repair large pipelines that transport oil and gas from the inside using fiber reinforced polymer or FRP, reducing and in many cases eliminating excavation to repair pipes conveying hazardous fluids.

Additional information:

PipeMedic® by QuakeWrap

https://pipemedic.com/

U.S. DOT's Small Business Innovation Research Program

https://www.volpe.dot.gov/work-with-us/small-business-innovation-research

U.S. DOT Pipeline and Hazardous Materials Safety Administration (PHMSA)

https://www.phmsa.dot.gov/

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