

## **QuakeWrap Wins Federal Research Grant to Explore Gas and Oil Pipeline Repair**

*Tucson-based QuakeWrap Inc. is the recipient of a federal research grant from the U.S. DOT to explore a greener, less intrusive repair method using fiber reinforced polymer (FRP) for larger gas and oil pipelines.*

**(FOR IMMEDIATE RELEASE)** TUCSON, Ariz. (June 4, 2020) -- An international innovator in infrastructure renewal is one of the recipients of a highly competitive national small business award supporting research and development of innovative solutions that solve major transportation challenges.

The “Internal Repair of Steel Transmission Pipelines” proposal from Tucson-based QuakeWrap Inc. was awarded \$150k by the U.S. Department of Transportation SBIR (Small Business Innovation Research) program for fiscal 2020. The award is the first of two phases scheduled to be awarded.

A big part of the attraction of QuakeWrap’s proposal is the trenchless aspect, says Firat Sever, principal investigator of the proposed repair method and Pipeline Division Manager for QuakeWrap, Inc.

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

The available repair methods are disruptive, require access by destructive means and are costly in terms of time and resources, he said.

“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,” Sever said.

The proposed repair method, called SuperLaminate™ by QuakeWrap, utilizes existing launch stations or access sites used for cleaning and inspection of oil and gas pipes.

“Our main objective in Phase I is achieving proof of concept with respect to using the technique for steel transmission pipes,” Sever says. To achieve this objective, QuakeWrap’s internal research laboratory will be testing the system for high pressure and chemical resistance, in addition to developing a design methodology for this energy-saving repair application.

According to the U.S. DOT Pipeline and Hazardous Materials Safety Administration (PHMSA), there are approximately 319,392 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 pipes proactively, before they fail. The solution needs to be feasible, economic, and deployable with minimal impact to operations, Sever said.

The U.S. DOT is one of 11 federal agencies that participates in the SBIR program supporting national research and development by small businesses. In its 26-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.

The U.S. DOT SBIR Program for fiscal 2020 offered awards to 20 domestic small businesses, including two Arizona companies. You can view the list of companies receiving offers for FY2020 here

<https://www.volpe.dot.gov/work-with-us/small-business-innovation-research/fy20-phase-1-awards>

### **About the U.S. DOT SBIR Program**

The U.S. DOT is one of 11 federal agencies that participates in the SBIR program. U.S. DOT's highly competitive SBIR program awards contracts to domestic small businesses to pursue research on and develop innovative solutions to our nation's transportation challenges.

The U.S. DOT SBIR program favors research that has the potential for commercialization through products and applications sold to the private sector transportation industry, state departments of transportation, U.S. DOT, or other federal agencies.

Small businesses that participate in U.S. DOT's SBIR program have developed numerous new and innovative technologies that have benefited the department and the public, while providing a basis for growth for small businesses. Over the past five years, the U.S. DOT SBIR program has invested \$50 million in qualified small businesses. More information can be found at

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

### **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 25 years 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 <http://quakewrap.com/>

## **AT A GLANCE**

Arizona-based QuakeWrap Inc. wins U.S. DOT SBIR Phase 1 grant in the research category of “Internal Repair of Steel Transmission Pipelines (20-PH2)”

### **Name of Research Proposal**

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

### **Award Amount**

\$150k



**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.

**More 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/>