

Public Executive Summary

Title: New Safety Barrier Testing Methods

Name of Offeror: Southwest Research Institute

Project Director/Principal Investigator: Shane P. Siebenaler

Solicitation Number: RFP2008DW2101 (08121-2101-02)

Project Start Date: January 19, 2010

Project End Date: December 30, 2011

Total Estimated Cost:	\$	160,000.00
RPSEA Maximum Share:	\$	126,400.00
SwRI Cost Share:	\$	32,000.00

Safety barriers, such as valves and blow-out preventers, are vital components to continued oil and gas operations. These safety barriers are particularly vital for ultra-deepwater applications for which the failure to hold, operate, and maintain pressure could have catastrophic impacts to worker safety, the environment, and the economics of well operators. The utilization of these barriers requires that their performance be periodically assessed. The current approaches to performance evaluation, including leak detection, are costly and can result in unacceptable losses of production.

Southwest Research Institute proposes conducting a program to move the oil and gas industry, particularly in the ultra-deepwater community, towards more efficient and effective means of evaluating safety barriers. This program would be a two-prong effort aimed at both background information collection, as well as proof-of-concept validation. The initial tasks would include soliciting regulatory input, reviewing existing literature, and executing a technology-selection task. The second half of the project will be aimed at lab-scale and field testing of selected technologies.

One of the key components in this project is interface with regulatory bodies. Thus, approaches developed during this project are likely to be on the correct road towards acceptance as regulatory-approved industry practices. The program outlined in this proposal will evolve the technical readiness of alternate approaches to safety barrier evaluation. More specifically, this project will allow for the identification of one or more specific testing methodologies that could then be expanded upon in future joint-industry projects or by individual companies.

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