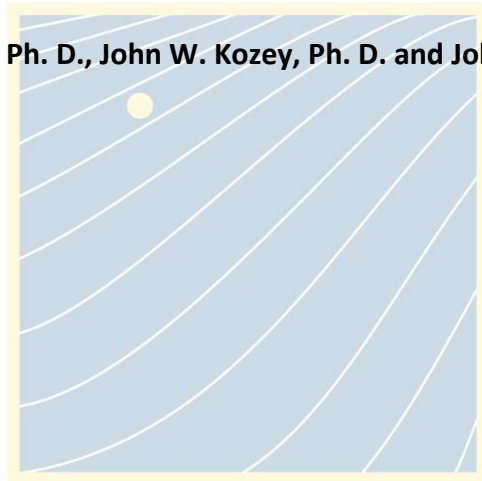


# Survival Systems Training

## A Functional Analysis of H<sub>2</sub>S / SABA Offshore Skills Training and Evaluation

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## Abstract

### **Introduction:**

Emergency preparedness is a critical component of workplace training in the oil and gas industry. As part of an overarching safety plan, offshore personnel are currently required to complete hydrogen sulfide (H<sub>2</sub>S) training before working in areas known to contain toxic levels of the flammable gas. Unfortunately, the current H<sub>2</sub>S training standard recognized by the offshore industry does not contain some of the crucial evacuation skills specific to an abandonment situation. For example, there is no requirement in the current standard to practice donning an offshore immersion suit while wearing a self-contained breathing apparatus.

### **Methods:**

To investigate the impact of offshore evacuation skills such as connecting/disconnecting from a supplemental air manifold (also known as a supplied air breathing apparatus or SABA), donning an immersion suit while wearing a breathing apparatus, and boarding a lifeboat, 42 participants were randomly assigned to one of two training conditions. Both groups received the same initial training and were retested approximately one week later (retention). However, one group also had the opportunity to practice the offshore evacuation skills before performance evaluations were conducted. Performance and difficulty rating data were collected immediately following training procedures. An expert H<sub>2</sub>S instructor evaluated the performance of each participant and an observational video analysis was used to confirm the ratings.

### **Results:**

The group, given the opportunity to practice the offshore specific skills during their initial training was much better prepared (performed better) during the retention testing. Specifically, the participants in this group were significantly faster at donning their immersion suits while wearing the SABA and had a higher success rate at connecting to the supplemental air manifold.

### **Discussion:**

The results of this study support the need for directed practice. Without the opportunity to perform offshore specific H<sub>2</sub>S skills in a controlled training setting, individuals might not be capable of completing crucial tasks in an actual emergency.

### **Recommendations:**

Based on the results, it is recommended that future offshore specific H<sub>2</sub>S training standards include offshore specific task while wearing compressed air systems such as the SABA.

**Key Words:** Emergency preparedness; safety-based competencies; survivability; task performance