

## Improvise, Adapt, Overcome— Managing Change By Shannon Smith

In the movie *Heartbreak Ridge*, Clint Eastwood's character has a simple rule for winning in combat, "You improvise. You adapt. You overcome."

Stuff will happen. When it does, you need to THINK before you ACT. The management of change process is designed to help you think through the possible effects of a change before you make it.

The Management of Change forms are designed to be simple and easy to use. They basically help the people affected to answer 5 questions:

- Why are you changing something?
- What is the goal?
- What could go wrong?
- Is it worth the risk?
- Did it work?

A KEY part of the process is to **involve the people who will be affected** and to ensure that they are **advised** and **trained** for any resulting changes. Even seemingly small changes could affect other parts of the operation.

In the incident investigation that follows, changing in the type of engine control throttles without a management of change resulted in \$500,000 damage and one fatality.

Pressing one new button after startup was the only step added to the procedures, but no one thought to tell the crew.

### [Capsizing of the Towing Vessel Megan McB](#)

The *Megan McB* was scheduled to assist two tows with entering Lock and Dam 7 on the Mississippi River. It was the newest vessel of the fleet and the only one equipped with electronic engine controls (as opposed to air throttles). Each time the diesel engines were started, the "STATION SELECT" button had to be pressed on the control head. The control head controlled both the forward and stern controls as well as the engines' speed. The throttles would not control the engines until the "STATION SELECT" button was pressed.



Clint Eastwood as  
"Gunny Highway"

"It is not the strongest species that survive, nor the most intelligent, but the ones most responsive to change."

- **Charles Darwin**

### Your Turn

#### Management of Change?

We'd like to hear your thoughts. What questions do you still have about this process?

Can you think of an instance on your vessel where MOC could have been used?

Send your comments—  
anonymous if you like—  
to [HSE@tdi-bi.com](mailto:HSE@tdi-bi.com).

### TOP 3 Safety Card Hits

(Fleetwide last month)

**Safety Attitude 9**

**Housekeeping 4**

**Maintenance 3**

## Capsizing of the Towing Vessel Megan McB

Crew shift changes took place shoreside. The company's procedures for crew shift changes at 1800 and 0600 included switching power between the two onboard generators before the next crew arrived.

The original pilot had joined the vessel mid-shift but had to leave unexpectedly due to a family emergency. The replacement pilot had operated several of the company's other vessels, but had never served on the *Megan McB*. At 0500 the crew prepared for the 0600 shift change, including the generator switchover and shutting down the diesel engines. At 0545 the first mate advised the pilot he was about to switch generators. The pilot shut down the bridge electronics (including the throttles) and the first mate completed the switch. About one minute later, the first mate restarted the engines.

At 0555, the pilot prepared to maneuver the vessel and radioed the crew to release the mooring line. Mooring lines released, the pilot attempted to engage the engines by moving the throttles forward on the control head. But because he had not pressed the "STATION SELECT" button, the engines did not respond.

Realizing he did not have engine control, the pilot radioed the deckhand to throw the line back onto the mooring pin. The deckhand tried, but missed. By the time he recovered the line for a second attempt, the current had carried the vessel too far away.

The deckhand and first mate ran up to the bridge, but moments later, the deckhand ran down the interior stairs. He did not explain why he left or where he was going.

The river current swept the *Megan McB* into gate no. 1 of the dam. The top of the vessel's starboard side made contact with the catwalk atop the dam, causing the vessel's hull to be pushed out from underneath the superstructure while the superstructure was pinned against the catwalk. The vessel collapsed onto its port side and came to rest just south of gate no. 1 where concrete baffle blocks held it in place.

The pilot and first mate were able to escape through the wheelhouse windows, which had been broken by the current. The body of the deckhand was located on the second deck several hours later.

## What went wrong?

The company did not have a process for instructing first-time *Megan McB* pilots about the vessel's electronic engine control throttles, even though this type of control was unique to that vessel in the fleet.

When the original pilot was interviewed later, he said he was not instructed on how to operate the electronic control head the first time he piloted the vessel, but the first mate came to his aid and alerted him about pressing the "STATION SELECT" button.

The incident with the original pilot was not recognized as a near miss and was not reported or investigated.

