

Conduct of operations: The glue between training and performance

Read any incident investigation report and, almost certainly, one of the recommendations will be to train or retrain workers in some operations, maintenance or administrative procedure. Yet in many cases the workers are already well-trained in the subject procedure and have met all company requirements, including demonstrations that the training was understood. How, then, is it possible that well-trained, qualified workers fail to execute the procedures as required?

Some will claim that human error is the cause, and indeed, we all make mistakes. But in high-reliability organizations, isolated human errors should not result in serious incidents. Excellence in training does not automatically result in excellence in execution, and the "glue" that is often missing is a management system governing the conduct of operations.

The traditional response to incidents involving operations or maintenance department personnel errors is to dismiss or punish those deemed derelict in their duties and to retrain those who remain. However, this often fails to have a lasting effect.

Conduct of operations (COO) or operational discipline by various sources may be more effective in addressing the causes of these incidents. COO is the execution of operational and management tasks in a deliberate and structured manner. It institutionalizes the pursuit of excellence in the performance of every task and minimizes variations in performance.

COO applies to all work activities. Each work group defines the framework of controls necessary to ensure that tasks for which it is responsible are performed reliably. The manager of each work group is responsible for the COO in his group, but overall responsibility rests with the facility or operations manager.

Typical elements addressed by a COO system include:

- Adhering to safe operating limits and limiting conditions for operation, regardless of the economic incentives to "ride it out" and avoid a process shutdown.
- Controlling access to operator work areas to minimize distractions.
- Formalizing equipment access protocols so there is a clear "owner" responsible for maintaining the equipment in a safe

state at all times.

- Maintaining good housekeeping to instill a sense of ownership and pride in the work force as well as to reveal incipient problems.

- Maintaining clear labeling and good lighting to minimize human errors when selecting equipment or taking readings.

- Maintaining equipment and tools in good working order so they provide reliable information to the workers.

- Emphasizing observation and attention to detail so warning signs of imminent failures are noted during rounds.

- Promoting a questioning/learning attitude so workers' troubleshooting skills are always improving.

- Training workers to recognize hazards and emphasizing lessons learned from incidents throughout the plant, the company and industry.

- Training workers to self-check and peer-check so human errors can be identified and corrected before any harm results.

- Establishing standards of conduct that promote constructive cooperation with zero tolerance for disruptive behaviors.

- Correcting deviations immediately

so workers are aware of management's ongoing interest and attention to unsafe actions and conditions.

The result of this type of program is to convert the trained work force into an effective work force for whom excellence is the only acceptable performance standard.

Workers must be initially and periodically trained in an organization's policies, procedures and practices. However, having well-trained workers does not alone ensure excellent operating results. COO addresses the day-to-day implementation of that training so that operational and management tasks will be executed in a deliberate and structured manner. It is the "glue" that binds good training to a consistently high level of human performance. Any company can adopt the principles of a COO program, but it will only be successful if the company's culture embraces and reinforces the pursuit of operational excellence.

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