Unsafe behaviors are a key contributing factor in many mining incidents. However, behavior is a consequence and not a cause. We now know attitudes and behaviors are both measurable and manageable.

It is important to optimize behavior because carefully designed and effectively implemented work procedures that are not complied with still have substantial potential for increased injury and incidents.

What We Know about Behavior

Most experts believe human behavior (anything that is an observable action) is primarily controlled by the “ABC model” of Activator—Behavior—Consequence.

**Activators:** People behave the way they do because they are activated to do so. Activators can be someone’s voice, a phone ringing, a written to do list, memory, training, etc. Activators can be either conscious or subconscious.

**Behavior** is a reflection of our knowledge, training and competence and can be intentional or unintentional. Individuals are most often motivated to repeat a behavior, e.g., driving within the speed limits, by the consequences or enforcements experienced from previous behaviors.

Behaviors are also affected by people’s attitudes about risk. This knowledge helps us to minimize unsafe behavior by making workers aware of why they behave the way they do, what is a safe and unsafe behavior, and what can be done to minimize unsafe and encourage safe behaviors.

Minimizing unsafe behavior by:

- Educating all employees on the causes of safe and unsafe behavior.
- Developing an observation and feedback process.
- Emphasizing how to control behavior and intervene with co-workers.
Behavior Optimization
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**Expectations**

15.1 Educate employees regarding the causes of safe and unsafe behavior, e.g., the ABC model, how to control their own behavior and when and how to intervene with co-workers.

15.2 Develop a workplace observation and feedback process. The process should be confidential and voluntary, but collect observation data for analysis.  

15.3 Apply the ABC model beyond observation and feedback to include an emphasis on general safety and health activators and consequences.

15.4 Integrate behavior optimization with related SHMS Modules: 12 (Work Procedures), 14 (Incident Reporting), 8 (Collaboration and Communication), 7 (Culture Enhancement), etc.

15.5 Ensure adequate focus on the quality of observations and feedback.

**Footnote**

1 Should include all personnel and address all activities. Should include the development of a critical behavior inventory, should be managed by employees and facilitated by management, and should include both behaviors and work processes.
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**Regulation**
Partial or full MSHA and/or OSHA regulatory requirement: □ Yes ✓ No

**Metrics**
1. Percentage of personnel participating in observation and feedback.
2. Percentage safe and unsafe behaviors within the workforce.

**Resources**
CORESafety resources can be found with the latest updates at:
coresafety.org/resources/module15
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Notes