The Steelworker Perspective on Behavioral Safety

Comprehensive Health and Safety vs. Behavior-Based Safety
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What is behavior-based safety?

The term behavior-based safety is used to describe a variety of programs that focus on worker behavior as the cause for almost all workplace accidents. Simply stated, behavior-based safety proponents believe that between 80% to almost 100% of accidents are caused by unsafe acts. This belief is highlighted by the results of a 10-year DuPont study (summarized in the adjacent box) that found unsafe acts causing or contributing to nearly all injuries. This type of data is used to explain that not only are unsafe acts the cause of almost all workplace accidents, but that for every accident that occurs, there are many more unsafe behaviors that aren’t accounted for. This point is often relayed by showing an iceberg representing relatively few lost time accidents and fatalities at the top, more medical treatment cases and even more first aid cases just above the water, but many-many unsafe acts hidden under the surface of the water.

These programs are typically sold to employers by a consultant. The process is similar to what we have seen over the years with many total quality management programs. The ultimate objective of the relationship between the consultant and the client is to help achieve management goals such as cost savings and a reduction in accident rates. After this consultant-client relationship is established for behavior-based safety, union or worker buy-in is sometimes sought.

These programs identify key unsafe behaviors that are believed to contribute to the facility accidents. This often uses information from accident reports from the past few years. Then these programs typically enlist floor level supervision or workers as observers, behavioral inspectors, or unsafe act cops. The observer’s role is to perform a subjective review of workers performing their job and identify unsafe acts performed by the worker. The functions of the observation are to obtain a regular sampling of the safety program, and provide feedback to workers. Feedback typically occurs just after the observation. Workers and the observer discuss what the observer saw. Typically observers have been trained to use positive feedback to reinforce the safe behaviors observed, but the observer also draws the worker’s attention to the unsafe behaviors observed. This is done in an attempt to achieve the main goal of behavior-based safety and change worker behavior from unsafe to safe. Data collected during the inspections is tabulated and utilized to determine priorities for additional worker training.

<table>
<thead>
<tr>
<th>Causes of Lost Workday and Restricted Workday Injuries</th>
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<tbody>
<tr>
<td>Results of a 10-year DuPont Study</td>
</tr>
<tr>
<td>Unsafe Acts Associated with:</td>
</tr>
<tr>
<td>Personal protective equipment 12%</td>
</tr>
<tr>
<td>Positions of People 30%</td>
</tr>
<tr>
<td>Reactions of People (Actions of People) 14%</td>
</tr>
<tr>
<td>Tools and Equipment 28%</td>
</tr>
<tr>
<td>Procedures and Orderliness 12%</td>
</tr>
<tr>
<td>Total Injuries Caused by Unsafe Acts 96%</td>
</tr>
<tr>
<td>Total Injuries with Other Causes 4%</td>
</tr>
<tr>
<td>100%</td>
</tr>
</tbody>
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Behavior-Based Safety Summary

- Almost all accidents result from unsafe acts
- For every accident, there are many unsafe behaviors
- Consultant - Employer relationship
  - Worker buy-in
- Identify key unsafe behaviors
- Train workers/management to observe workers
- Perform observations
- Provide feedback to move away from unsafe behavior
- Record and use data from observations

United Steelworkers
Health, Safety & Environment Department
Why are workers and unions concerned about behavior-based safety?

The United Steelworkers (USW) represents over 800,000 members in the United States and Canada. Many members of our union work directly in the basic steel industry. But the union membership has changed over the years. Now the majority of our membership works in other industries such as rubber and plastics, chemicals, nonferrous metals, mining, transportation equipment, general manufacturing, health care and public service industries. Many kinds of occupational health and safety hazards come with the diversity of the workplaces that our members work. USW policies and positions regarding occupational safety and health matters are based on the experience of the USW Health, Safety and Environment Department Staff, which is based on the workplace experiences of our membership.

Because of worker exposure to health and safety hazards, a USW member is killed on the job every 10 days. The union and our membership take accident investigation very seriously. When we investigate accidents, we search for root causes. What we find is very different from the unsafe acts that behavior-based safety proponents say cause accidents. We do not find unsafe acts as a prevalent root cause of accidents.

The USW has tracked data on fatality investigations for 20 years. What we almost always find when we investigate catastrophic accidents including fatalities is that multiple root causes that are related to hazards and unsafe conditions, not multiple unsafe behaviors, cause the accident. The table below provides a sample of root causes often cited in USW accident investigations.

<table>
<thead>
<tr>
<th>ACCIDENT CAUSES COMMONLY IDENTIFIED BY USW LOCAL UNION ADVOCATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment not Available</td>
</tr>
<tr>
<td>Increased Production Quotas</td>
</tr>
<tr>
<td>Known Hazards NOT Corrected</td>
</tr>
<tr>
<td>Exposure to Energy</td>
</tr>
<tr>
<td>Inadequate Training</td>
</tr>
<tr>
<td>Missing or Faulty Safety Devices</td>
</tr>
<tr>
<td>Lack of Maintenance</td>
</tr>
</tbody>
</table>

Behavior-based safety programs attempt to change worker behavior. What we have found is that the workplaces using these programs are much more likely not to address the hazards that are in fact the root causes of worker injury, illness and death. At a behavioral safety workplace hazards often do not get identified; and even when identified, do not get fixed. Workers receive feedback from observers that encourages them to work more safely around a hazard, but the hazard itself does not get eliminated or controlled. As long as the hazard remains, the potential for injury or illness remains.

Behavior-based safety programs continue to be prevalent in the industries that the USW represents. In a survey underway by the United Steelworkers, preliminary results indicate that 28% of unionized tire manufacturing facilities in the United States currently have a behavior-based safety program. Although often touted as “leading-edge technology”, this type of program is not new to workers. Our members have seen these same ideas, packaged a little differently, for years. Other unions have also concluded that despite behavior-based safety’s current popularity, it is nothing new. A publication of the United Auto Workers (UAW) Health and Safety Department states, “Fifty years ago, H.W. Heinrich popularized the view that the vast majority of injuries and illnesses are the result of unsafe acts by workers. Heinrich was an Assistant Superintendent of the Engineering and Inspection Division of Travelers Insurance Company during the
1930’s and 1940’s. He concluded that 88% of all industrial accidents were primarily caused by unsafe acts. But Heinrich’s conclusion was based on poorly investigated supervisor accident reports, which then, as now, blamed injuries on workers.5

The USW, UAW and other unions have identified numerous concerns with behavior-based safety programs. The USW contends that behavior-based safety programs can’t take the place of a comprehensive health and safety program. Comprehensive health and safety programs that involve workers and their unions, identify and correct workplace hazards and unsafe conditions, and utilize the hierarchy of controls to address hazards are essential to making workplaces safer. While many behavior-based safety proponents now claim to agree with this (according to one behavior-based safety company, “Behavior-Based Safety WILL NOT take the place of the hierarchy of controls because it CANNOT”), it has been our experience that many facilities with behavior-based safety are not addressing health and safety hazards and unsafe conditions with a comprehensive health and safety program. Despite behavior-based safety company rhetoric, when behavioral safety programs come into workplaces, focus moves away from comprehensive safety and health programs. We have seen facility after facility with behavioral safety programs that have eliminated, restricted or greatly reduced the role of a joint health and safety committee. In other plants, resources are directed or focus mostly or solely on worker behaviors. Behavior-based safety programs do not provide observers with the training needed to properly identify unsafe conditions. And as already stated, we even see plants with behavior-based safety programs that teach workers how to work more safely while exposed to fixable but uncorrected hazardous conditions.

Another worker concern with behavioral safety is the unsafe behaviors that are listed, categorized and utilized to perform observations. Resources are dedicated to compiling a list of the primary unsafe behaviors from a workplace. This time is spent by a combination of workers, management and consultants reviewing piles of accident investigation reports. While good intentions can go into this process, the lists developed in diverse workplaces with diverse hazards end up being nearly identical, including:

- Use of personal protective equipment by the worker
- Body position or the position of the worker
- Actions of workers
- Workers following procedures
- Housekeeping or orderliness
- The use of tools and equipment

Unfortunately, the information contained in many of the reports used to generate the lists is not accurate to begin with. In many cases supervisors prepared the accident reports that are reviewed. Many supervisors have not been adequately trained on identifying root causes, don’t believe that they have time to perform a proper accident investigation, and/or often list worker error or other blame the worker excuses as the cause of the accident.

Observing the behaviors on these lists does not result in a focus back on health and safety hazards and hazard elimination using the hierarchy of controls. In fact, our experience is that, despite the recent lip
service given by behavior-based safety consultants to the importance of the hierarchy of controls, workplaces
that concentrate on identifying unsafe worker behaviors move their overall health and safety program further
from addressing unsafe working conditions and health and safety hazards. Essentially, behavior-based safety
“turns the hierarchy of controls upside down, contradicting one of the most widely accepted concepts in injury
and illness prevention.”

How does behavior-based safety fit with OSHA compliance?

The Occupational Safety and Health Administration (OSHA) has the authority to promulgate occupational
safety and health standards. This authority is provided by Section 6 of the Occupational Safety and Health
Act (OSHAct). The OSHAct also provides OSHA with the authority to inspect and investigate workplaces
(Section 8 of the OSHAct) and issue citations to employers who fail to comply with OSHAct standards (Section
9 of the OSHAct). This means that an employer that does not comply with an OSHAct standard is not meeting
minimum requirements. In other words, OSHAct standards are minimum requirements that are legally
required.

At one plant represented by the USW, behavior-based safety and OSHAct compliance have been popular
discussion topics. This plant has had a behavior-based safety program in place since 1995. The mission
statement of the behavioral program at this plant is to provide a floor-driven process to reduce at-risk
behaviors by collecting data through observation and providing feedback to achieve continuous safety
improvement.

Since the program began, OSHA has been called to the plant through worker complaints and has also
inspected the workplace because of the plant’s injury and illness rate. The worker concerns associated with
these complaints have certainly been substantiated by the significant OSHAct citations issued over the past
few years. The OSHAct citations issued and proposed penalties are summarized below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Willful</th>
<th>Repeat</th>
<th>Serious</th>
<th>Other</th>
<th>Unclassified</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>15</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td></td>
<td>&gt;$15,000</td>
</tr>
<tr>
<td>1998</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td></td>
<td>&gt;$150,000</td>
</tr>
<tr>
<td>1997</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
<td>&gt;$75,000</td>
</tr>
<tr>
<td>3-year total</td>
<td>2</td>
<td>1</td>
<td>22</td>
<td>7</td>
<td>2</td>
<td>&gt;$240,000</td>
</tr>
</tbody>
</table>

OSHA standards provide us with a guide to bare bone minimum acceptable requirements for a health and
safety program. A program that just complies, or just tries to comply, with OSHAct standards is certainly not a
comprehensive health and safety program. Given the citation history of this plant for the past three years, it
would be difficult to conclude that this plant has a working comprehensive program. At this same plant,
thousands of observations have been performed. The goal at this plant is to perform more than 300
observations per week. Well more than 7,500 hours per year are dedicated to observation of worker
behavior. However, the local union at this plant was only able to find a handful of observations that noted the
numerous health and safety hazards found during the OSHAct inspection process. One behavior-based
program, the DuPont STOP (Safety Training and Observation Program) has a training manual that instructs
observers that, “Both safe and at-risk behaviors – also called safe and unsafe acts – are always done by
people, not machines. This is why skilled observers look at everything in the workplace but concentrate on
people and their actions to see whether they are working safely.” Our experience from this plant and others
is that the behavioral safety programs train workers to be good observers, but fail at training observers to
properly identify and understand health and safety hazards.
Management at this plant provides much more time for union involvement in the plant’s behavioral safety program than it does for union involvement in other pieces of a health and safety program. In fact, the local union at this plant has rejected a full-time behavioral safety facilitator until the company makes the position of union safety committee chairman a full-time position. Thus far the company has refused. At this plant, as in many facilities with a behavior-based safety program, other areas of health and safety don’t receive the resources or the attention that they need to be properly run. The USW contends that the skewed weighting of resources is an almost inevitable result of the implementation of a behavior-based safety program.

Where do we go from here?

Behavioral safety is based on the theory that almost all accidents result from an *unsafe act*. And for every accident, there are many *unsafe behaviors*. The USW knows from our experience dealing with health and safety in thousands of workplaces, that this is wrong. Hazards and unsafe conditions cause injuries and illnesses. When the hazards are properly identified and fixed, the injuries and illnesses decrease.

Establishing effective comprehensive health and safety programs is our union’s goal. These programs enlist participation from workers and their unions to address hazards and conditions and get these problems fixed. Behavior-based safety is not a required piece of a comprehensive health and safety program. We do recognize the possibility of human error on the job. Our goal is to see that workplaces, jobs and equipment are designed in ways that recognize that possibility and assure that dire consequences will not result from inevitable human error. The emphasis on workplace and job design must be the same as the emphasis we seek for ergonomic hazards: fix the job, not the worker!

Behavior-based safety consultants establish a relationship with employers to meet the consultants goals (to sell their programs) and employers’ goals to cut costs. Then workers are invited into the mix, with consultants and employers seeking their buy-in. Workers are needed to achieve management’s goals; thus many behavior-based safety programs get referred to by consultants and management as “worker-” or “floor-driven.” The company buys a vehicle to achieve their health and safety goals. Then they allow the workers to choose the floor mats and maybe pick out the color of the vehicle. Workers need to be involved much sooner in the decision making process to so that we can bring our expertise to the discussions to determine what is needed to improve workplace health and safety. It is important that workers and unions achieve the fundamental goals of the union – including safer, healthier and more hazard-free jobs. We maintain that workers are the solution to workplace health and safety concerns, not the problem.

And, as always we believe that the role of the International Union Health, Safety & Environment Department is to provide technical assistance, education, and access to resources to our members. We believe that workers and workplaces considering behavior-based safety or involved with behavior-based safety should hear all sides of this issue and make an informed decision. We also welcome the opportunity to discuss these concerns with our employer counterparts and the behavior-based consultants.

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1 DuPont, *Safety Training Observation Program for Supervision – Unit 1 Introduction: The STOP System*, page 1.11, 1995
6 Thomas R. Krause, General Editor, *Current Issues In Behavior-Based Safety – How to Make Continuous Improvements a Reality*, 1999 (Jim Spigener, Chapter 4, “The Nayayers Have Had A Legitimate Gripe”), page 26