

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.¹ 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.²

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

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.³ 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.

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



Why are workers and unions concerned about behavior-based safety?

The United Steelworkers of America (USWA) represents 700,000 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. USWA policies and positions regarding occupational safety and health matters are based on the experience of the USWA 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 USWA 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 USWA 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 USWA accident investigations.

ACCIDENT CAUSES COMMONLY IDENTIFIED BY USWA LOCAL UNION ADVOCATES		
Equipment not Available	Contact Causing Burns	Faulty Equipment
Increased Production Quotas	Being Caught Between or Struck By	Increased Contracted Work
Known Hazards NOT Controlled	Safety & Health Management Failure	Inadequate Working Environment
Exposure to Energy	Lack of Training	Hazards Not Identified
Inadequate Training	Falls	Electrocution
Missing or Faulty Safety Devices	Process and Equipment Design	Chemical and/or Toxic Material Exposure
Lack of Maintenance	Human Factors	Out of Compliance

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 USWA represents. In a survey underway by the United Steelworkers of America, 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”,⁴ 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

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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 USWA, UAW and other unions have identified numerous concerns with behavior-based safety programs. The USWA 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"⁶), it has been our experience that many facilities with behavior-based

USWA Comprehensive Health and Safety Program Components

- **Union & Management Commitment**
- **Adequate resources**
- **Workers right to identify hazards without fear of retaliation**
- **Rapid process of identifying and correcting hazards**
- **Right to refuse unsafe work**
- **Union access to information**
- **Union involved with incident investigations**
- **Training for safety and health committee**
- **Collaboration in the design and oversight of all aspects of Safety and health programs**
- **OSHA standards are only a starting point**

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

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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.”⁷

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 OSHA standards (Section 9 of the OSHAct). This means that an employer that does not comply with an OSHA standard is not meeting **minimum requirements**. In other words, OSHA standards are minimum requirements that are legally required.

At one plant represented by the USWA, behavior-based safety and OSHA 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 OSHA citations issued over the past few years. The OSHA citations issued and proposed penalties are summarized below.

	Willful	Repeat	Serious	Other	Unclassified	Penalty
1999			15	6		>\$15,000
1998	2	1	3			>\$150,000
1997			4	1	2	>\$75,000
3-year total	2	1	22	7	2	>\$240,000

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 OSHA 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 OSHA 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.”⁸ 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 USWA 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 USWA 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.

¹ DuPont, *Safety Training Observation Program for Supervision – Unit 1 Introduction: The STOP System*, page 1.11, 1995

² DuPont, *Managing Safety: Operations Managers' Safety Training Resource Manual*, 1991

³ Thomas Krause, John Hidley, and Stanley Hodson, *The Behavior-Based Safety Process – Management Involvement for an Injury-Free Culture*, Van Nostrand Reinhold, New York, 1990, p. 165

⁴ James B. Spigener and Stanley J. Hodson, "Are Labor Unions In Danger of Losing Their Leadership Position in Safety? – Their Resistance to Behavior-Based Safety Makes Us Wonder", *Professional Safety*, December 1997, p. 37

⁵ Jim Howe, "Debunking Behavior Based Safety", *Occupational Health & Safety - Newsletter of the UAW Health & Safety Dept.*, No. 1, 1999, p. 5

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 Naysayers Have Had a Legitimate Gripe), page 26

⁷ Jim Howe, "Warning: Behavior-Based Safety Can Be Hazardous to Your Health & Safety Program", *Occupational Health & Safety - Newsletter of the UAW Health & Safety Department*, No. 4, 1998, p. 6

⁸ DuPont, *Safety Training Observation Program for Supervision – Unit 1 Introduction: The STOP System*, page 1.10, 1995