

BEHAVIOR BASED SAFETY PROGRAM

POLICY

The policy of Winger Companies, herein referred to as Winger, is to perform work in the safest possible working conditions for its employees' work place. It is each employee's responsibility to ensure they are performing their job in the safest most efficient manner possible.

PURPOSE

The purpose of Winger's Behavior Based Safety Program is to provide the guidelines for the implementation of a Behavior Based Safety (BBS) program. Successful implementation of Behavior Based Safety requires a top-down management approach. Winger's policy reflects the importance of BBS and also the commitment of management to this program.

Behavior Based Safety will be fully integrated in Winger's organization and management systems. It is an integral part of Winger's culture and is one of the key drivers for continuous performance improvement through the implementation of key performance indicators.

KEY PERFORMANCE INDICATORS

- ✚ Accident/incident statistics
- ✚ Rework costs
- ✚ Insurance premiums
- ✚ OSHA fines
- ✚ Workman's Compensation costs

BACKGROUND OF BEHAVIOR BASED SAFETY

Behavioral science traces its inception to a merging of different fields of science in one individual: a medical doctor who held a university chair in Philosophy in 1876. Behavior-based safety (BBS) brings together parts of behavioral science with industrial safety to create a "new" process to promote safety as an organizational value.

In the 1930's, Heinrich reported that about 90% of all accidents involving fatalities, major and minor injuries were caused by "unsafe behavior" by workers. Subsequent studies by DuPont (1956) confirmed Heinrich's contention. In the 1970's and 1980's, this was expanded to include near misses and Behavior Based Safety added "unsafe or at-risk behaviors." Traditional engineering and management approaches to counter this (such as automation, procedure compliance, administrative controls, and OSHA-type standards and rules) were successful in reducing the number of accidents significantly. However, incidents and accidents persisted, keeping rates at a level that was still disturbing to customers, managers, and workers.

Developed in the late 1970s, BBS has had an impressive record. Research has shown that, as safe behaviors increase, safety incidents decrease. Measurement of "percent safe acts" is a leading safety indicator. In contrast, most safety measures are lagging measures, which are recorded after the incident (e.g., OSHA recordable cases).

Ample Anecdotal evidence also exists to indicate that measurement of "percentage or safe behaviors" is predictive. In other cases, the changes in the rate were acted upon, stopping the unsafe trend. In some cases, the trend was not acted upon and an accident happened within a short period of time. Connelly (1997) claimed that some people he worked with felt that a change in the Safe Acts Index (% Safe Acts) was a three-week predictor of

an accident. This means that the observation and feedback techniques of BBS may be used to predict that safety problems may be growing in your facility. Intensifying the BBS observation cycle will often prevent an injury or accident.

RESPONSIBILITIES

Upper Management:

- ✚ Prepare a document describing the company's planned approach towards BBS including all components.
- ✚ Communicate this plan to all personnel involved and review it at least annually.
- ✚ Develop a BBS training program
- ✚ Initiate, implement and provide ongoing support for the BBS program.
- ✚ Define roles, deliver resources, resolve issues and remove barriers for a successful implementation.
- ✚ Set targets, monitor status and results.
- ✚ Keep records of performance indicators.
- ✚ Manage the improvement process based on BBS data analysis.

General Foreman / Foreman:

- ✚ Understand and support the BBS program.
- ✚ Avoid planning and instructions that conflict with the BBS principles.

Safety Department / Trainers:

- ✚ Execute the BBS training.
- ✚ Observe and interactively communicate the findings with the employees.
- ✚ Collect data and report results to upper management.
- ✚ Identify and report any issues that need to be followed up by the employees or management.

Employees:

- ✚ Understand the purpose of the BBS program and be committed to participate.
- ✚ Discuss performance weaknesses with the trainer and help in finding solutions.
- ✚ Implement preventative changes as a result of the BBS analysis.

SEVEN GUIDING PRINCIPLES OF SAFETY MANAGEMENT

A successful BBS process by default or design encompasses the Seven Guiding Principles of safety management. These principles provide the foundation on which any BBS process should be built. They are as follows:

- ✚ **Line Management Responsibility for Safety** - The responsibility for safety and the BBS process is shared by management and front-line workers. All levels of the organization are involved in an effective BBS process.
- ✚ **Clear Roles and Responsibilities** - Functions within the BBS process are performed at the proper level and are integrated and adapted to fit the formal organization itself.
- ✚ **Competence Commensurate with Responsibilities** - An effective BBS process provides the skills needed to perform the tasks and functions associated with the job in a timely manner; provides the opportunity to use those skills on a regular basis; and provides for coaching and interaction with other people and organizations using the BBS process.
- ✚ **Balanced Priorities** - BBS provides the consistent stream of safety data that enables managers to balance safety priorities with production and other operational needs.
- ✚ **Identification of Safety Standards and Requirements** - Existing safety standards and requirements aid in developing the list of behaviors and definitions used in the BBS process.

- ✚ **Hazard Controls Tailored to Work Being Performed** - The observation process provides ongoing monitoring of processes so that Hazard Controls reflect the risks associated with work being performed in changing environments and conditions.
- ✚ **Operations Authorization** - The BBS process helps provide the behavior-related safety information necessary to make informed decisions prior to initiating operations.

FIVE CORE FUNCTIONS OF SAFETY MANAGEMENT

The following is a list of how sites developing and maintaining a BBS follow five core functions of a safety management system:

1. Define the Scope of Work

- ✚ Form assessment team(s)
 - ✚ Extract behaviors that were involved in past accidents/incidents
 - ✚ Develop definitions that describe the safe behavior
 - ✚ Compile data sheet using identified behaviors
 - ✚ Determine observation boundaries
 - ✚ Train observers
 - ✚ Gather data
 - ✚ Determine barrier removal process
 - ✚ Form barrier removal teams
2. **Analyze the Hazards** - Analyzing hazards is built into the BBS process. Hazards are analyzed during each observation, and the worker observed receives direct, measurable, immediate feedback on both safe and unsafe behaviors and ideas on how to minimize the risk. The assessment team and barrier removal team analyze the data gathered through observations to determine workplace hazards. The teams then develop action plans to remove barriers to safe work.
3. **Develop and Implement Hazard Controls** - Employees tasked with planning or designing work can also use the behavior assessment and data. By studying the definitions and data, barriers that could require a worker to perform at-risk behaviors can be “designed out” up front. This forethought makes the workplace a much safer environment.
4. **Perform Work within Controls** - Although work has been designed and training conducted to help the employee know how to work safely, bad habits and shortcuts can introduce at-risk behaviors into the workplace. The ongoing observation process encourages the continued use of safe behaviors and reminds workers that one at-risk behavior could cause an accident, injury, or even fatality.
5. **Provide Feedback and Continuous Improvement** - Feedback is provided each time an observation is performed. The process reinforces the use of safe behaviors and helps determine why certain at-risk behaviors were performed. Collecting information about the at-risk behaviors helps the teams determine the root cause of a behavior and develop an action plan to remove the barrier causing the behavior.

BEHAVIOR -BASED SAFETY PROCESS

Most behavioral safety processes are tailored to the work and management environment of the site. Despite these variations, all behavioral safety processes have three major components:

- ✚ Development of a list of at-risk behaviors,
- ✚ Observations, and
- ✚ Feedback.

This procedure will provide a description of the basic process of setting up and running a behavioral safety program and give some variations that have worked in different job sites.

- ✚ The process starts with a behavioral hazard analysis to identify at-risk behaviors. These can be determined using accident/incident reports, job hazards analysis, employee interviews, and brainstorming. In some instances, a combination of all these tools could be used.
- ✚ Using the at-risk behaviors, a checklist will be developed to assist in the observation of work behavior. In addition, a list of corresponding behavior definitions will be developed to help in maintaining consistency between observers and the resulting data. Observers record safe and at-risk behaviors on the datasheet and provide feedback to workers about their performance.
- ✚ The observer will start the review of the observation with positive comments. This will reinforce safe behaviors that were observed.
- ✚ The observer will then discuss what was unsafe and solicit explanations for the observed unsafe acts from the observed employee with open ended questions.
- ✚ The observer will then re-emphasize that there is no consequence to observed employee. This feedback reinforces the necessity for safe behaviors.
- ✚ The observation data is used to identify barriers to safe behavior. Removing these barriers lowers the workers' exposure to at-risk conditions and makes it easier for employees to work safely. Removing barriers and communicating successes increase employee involvement in the process. Many of these employees take these tools home, which helps decrease off-the-job injuries.

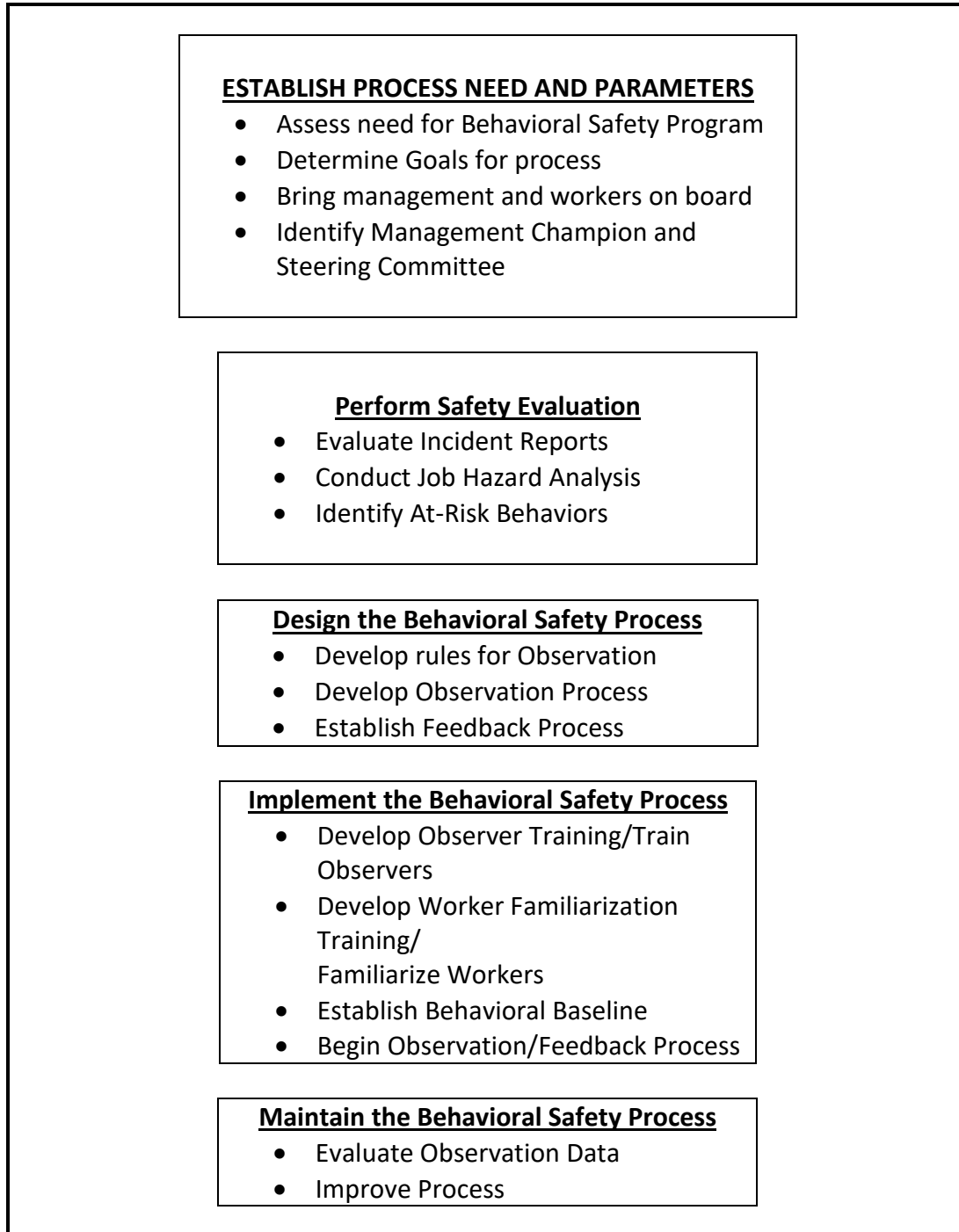
READINESS FOR BEHAVIOR-BASED SAFETY

All aspects of BBS may not work on every job site. Employees will resist programs that promise big benefits but only result in more paperwork, less progress, and a mountain of wasted time for safety teams. Although it's no magic bullet for injury prevention, there is data that proves that, as observations go up, injuries go down. Winger will develop management support, effective management systems, and a company culture that supports BBS. Since implementation of these processes can be costly, Winger will monitor the five conditions listed below to dramatically increase the likelihood of success:

- ✚ **Safety Leadership:** Leadership will be active, visible, and genuine in their commitment to injury and illness prevention. Winger senior management will articulate a clear and inspiring vision that injury-free performance is the only acceptable goal. And will insure that the "vision messages" is not interpreted as "don't report injuries" as a means of achieving the goal. The organization must view safety as a core organizational priority equal to profit, productivity, and quality.
- ✚ **Established Integrated Safety Management System:** Winger has setup an integrated safety management system to insure the success of the BBS program. This includes minimum compliance, accident investigation, self-assessments, safety and health training program, and record-keeping systems. More advanced systems enhancements (such as observation, coaching, safety involvement teams, job safety analysis, accountability, and safety by objectives) all rely on these basics being in place.
- ✚ **Employee Empowerment and Participation in Safety:** Winger will empower employees and promote involvement to enhance safety innovation, ownership and results. Labor/management cooperation serves as a catalyst for success. Without employee participation and involvement, BBS won't get off the ground. Another critical facet of involvement is buy-in. The Winger management team will work hard at winning buy-in from the field employees to the executive office.
- ✚ **Organization's Safety Culture:** Winger believes a positive social climate of trust, openness, and respect for individuals is an intangible of organizational life that dramatically affects worker performance. When the organizational style is more negative, involvement is low, complaining replaces problem solving, and coaching seems like scolding.
- ✚ **Measurement and Accountability:** At Winger will clearly defined responsibilities at every level of the organization that promotes top performance. Employee performance evaluations will include safe and at-risk behaviors, so strategies can be developed to focus on real threats to the employees' safety.

SETTING UP THE BEHAVIOR-BASED SAFETY PROCESS

WINGER'S BEHAVIOR BASED SAFETY PROCESS



Wingers BBS processes will be tailored to the work in all departments. Initial work in setting up a BBS process should involve management, workers, and the union at the facility. A major player is the “champion” who has the

responsibility for initially driving the process forward and guiding initial training and the initial selection of the steering committee (SC).

ESTABLISHING A STEERING COMMITTEE

The Steering Committee is the cornerstone for the implementation and growth of the BBS process at Winger, as it sets the boundaries for the process and guides the development, implementation, and process continuation. The Steering Committee is selected from a group of qualified employees, preferably volunteers, representing each department of Winger. The Steering Committee will be kept to a manageable size of around 10-15 members. If the Steering Committee is larger, it may not function as well. Therefore, multiple committees may be necessary. This decision may have negative consequences if not well managed. The Winger Steering Committee should determine how new members will join. The Steering Committee is composed of employees from the facility or department and should be a diverse cross-section of the organization. It is equally important that the Steering Committee members be those who command the respect of their peers, display leadership qualities, and are forward thinkers. The facility/department manager, the BBS coordinator, and the management champion will make initial assignments to the team and should establish the duration of the term, which will typically not exceed one year.

- ✚ **Steering Committee Roles and Responsibilities:** The functions listed below have been shown to be key to the successful workings of the Steering Committee and has guided Winger through the implementation of BBS. The functions may be combined based on the number of members available and the capabilities of those individuals. Winger recognizes that the implementation and growth of the BBS process requires time and resources. Winger personnel will be afforded the opportunity not only to serve on the Steering Committee, but also to adequately perform assigned functions within that body. For each of the following functions, consideration will be given to the responsibilities, desired characteristics or abilities, and the expected time factor (TF) involvement (Hi, Med, and Lo).
- ✚ **Management Champion/Sponsor:** The management champion or sponsor serves as an enabler and resource for the material needs of the Steering Committee. This individual must be a high-ranking member of management with a devotion to the BBS process. The individual must be willing to accept a role as an equal on the Steering Committee and avoid the temptation to manage the team. (TF=Lo to Hi)
- ✚ **Facilitator:** This individual should be a strong supporter of BBS, be knowledgeable of the process, and be an energetic leader comfortable with working within the organization's environment. This person leads the team through the BBS process implementation. Strong consideration should be given to selecting a deputy or assistant Facilitator, for both continuity and depth of leadership. Functions include:
 - BBS process expert
 - Have a vision of long-term process sustainability
 - Liaison with management team
 - Action plan coordination
 - Meeting chair
 - Training and monitoring observation performance
 - Other functions as identified by the Steering Committee and sponsor, such as data administrator and data input. (TF=Hi)
- ✚ **Data Administrator:** The data administrator will be responsible for data analysis or assist the facilitator with this function. Access to the data will be necessary by various individuals. Access to the database should be controlled. This function will require some computer experience. (TF=Lo to Hi)
- ✚ **Data Entry:** In organizations using a single data entry point, this function should be associated with the Steering Committee. If a single data entry point is used, this person will input all completed observation forms into an observation database. This necessitates good typing skills and a flexible schedule. This task may be performed by committee members or clerical support. (TF=Lo to Hi)
- ✚ **Data Manager:** For injuries and accidents to be predicted, the data gathered through observations must be reviewed and interpreted. The Data Manager prepares data packages for Steering Committee review, posts appropriate graphic information on organizational bulletin boards, provides necessary statistical

information, etc. An additional desirable quality would be that of statistical analysis ability to help the Steering Committee interpret the data. (TF=Med to Hi)

- ✚ **Recording Secretary:** This function records Steering Committee meeting minutes, prepares and issues the minutes, and issues the upcoming agenda prior to the next meeting. The timely issue of the meeting minutes requires the ability to do a quick turnaround. The recording secretary needs
- ✚ **Communicator:** Experience in BBS implementation has shown that communications play a pivotal role in the involvement of the observer force and the education of the organization. This function provides for release of information from the Steering Committee to the observer force and the organization. Desirable qualities in an individual filling this function are creativity, flexibility, computer skills, and good oral and written communication abilities. (TF=Med)

One final factor for consideration is the level of involvement that the Winger safety department will have with the Steering Committee and the BBS implementation. The Steering Committee may choose to include a safety specialist on the team. All safety specialists should be trained in the observation process along with other observers. The Steering Committee should fill these positions as they deem necessary for the success of their process.

FUNCTION OF THE STEERING COMMITTEE

Basic responsibilities of the Steering Committee are:

- ✚ Develop the at-risk behaviors inventory.
- ✚ Participate in the training and coaching of observers to provide for mentoring the observer process.
- ✚ Design the observation process.
- ✚ Analyze the observation data.
- ✚ Build action plans to respond to the leading indicators seen in the data.
- ✚ Ensure that communication with observers is maintained.
- ✚ Ensure that BBS is promoted and communicated to all organizational levels.

The Steering Committee may elect, as part of their team-building efforts, to create an identity for the team or for their organization's process. A unique name or acronym, logo, motto, or slogan can serve as a rallying point for the team. Depending on the scope of implementation, this identity may be site-wide, or facility-based.

IDENTIFYING AT- RISK BEHAVIORS

A very important step is the development of a list of at-risk behaviors. This inventory is supported by a list of definitions and examples of critical behaviors based on information extracted from injury reports, interviews, and observation of ongoing tasks native to a site's work environment. This inventory of behaviors, customized for the facility/department, is the basic tool of observation. Individual departments as well as the company as a whole will compare these measurements and track these results by an acceptable method so that numerical and statistical comparisons can be made over time. The observation data will ultimately be used to develop plans for risk reduction. This plan will be designed by evaluating unsafe behaviors from a prioritized trend analysis and reviewing comments and feedback from observations data sheets. The steering committee will then assign a responsible party and time frames for the implementation of the action plan and insure management will support the action plan. The Steering Committee will follow-up on the completion of the action plan to insure implementation of all actions listed within the action plan. The follow-up process will include a defined frequency for the review of the action plan; assign accountability for closeout of the action plan and archiving of the action plan.

Customizing the inventory for each facility/department is also critical in promoting acceptance and ownership of the process by the employees. The behavioral definitions and examples will be written so that they are "observable." Critical behaviors will be organized by risk factors and ranked in order of their potential severity.

Resources utilized for extraction of critical behaviors:

- ✚ **Accident/Incident Reports** – Information extracted from the investigations will indicate behaviors that have placed employees at risk for injury in the past. Review of these reports will often result in more than one critical behavior contributing to an injury or incident. The Steering Committee will be involved in current and future investigation groups to maintain good continuity of information from a behavioral perspective.
- ✚ **Job Hazard Analysis and PPE Assessments** – Foreman will generate these documents. Information derived from these documents will assist in determining hazards on a “task to task/step by step” basis for Steering Committee members who may not be familiar with certain jobs.
- ✚ **Task Observations** – Conducting observations of typical work tasks will not only validate behaviors that have already been extracted from historical sources but may also reveal new critical behaviors that have not yet resulted in recordable injury. Observations can also provide a means of engaging employees in the development of the site process. Observations provide direct, measurable information on employees' work practices identifying both safe and unsafe behaviors.
- ✚ **Employee Interviews** – Interviewing employees from various work groups can provide an opportunity for workers to explain how they perform their jobs safely. Knowing what behaviors are used to perform jobs safely can aid in determining the risks of not performing a job in a behaviorally safe manner.
- ✚ **Brainstorming** – Group interviews can help identify critical behaviors in work teams that have historically low injury rates and low risk perception.

REVIEW AND REVISION

Maintaining a valid inventory is critical to continuous improvement. The inventory will be reviewed periodically (at least annually) for applicability by the Steering Committee. Observers also review the tools during routine observations. New at-risk behaviors may be identified, especially when new equipment, facilities, and processes are introduced. Some behaviors may not be currently valid because the tasks associated with them have been changed or are no longer contributing to risk. These may need to be retired from the inventory. Inventories are modified based on a combination of data and the informed judgment of the Steering Committee.

Once trend analysis is complete, appropriate action plans must be developed to address unsafe behaviors. Action planning will include:

- ✚ Evaluate unsafe behaviors from trend analysis and prioritize
- ✚ Develop action plan for unsafe behaviors based on comments and feedback from data sheets
- ✚ Designate responsible parties and timeframes within the action plan
- ✚ Define who is responsible for action planning
- ✚ Ensure management support

MAINTAINING AND GROWING THE PROCESS

Keeping the momentum is an important part of a successful process. To present new challenges for the team, these questions will be asked on each project:

- ✚ How soon can you achieve an observation/feedback rate that will improve safety?
- ✚ How can you improve or maintain this observation rate?
- ✚ What is the decision process for growing BBS into new “jobs/facilities/departments” or adding different at-risk behaviors to the process?

TRAINING

All affected personnel will be trained on the following topics:

- ✚ Observation Process
- ✚ Program objective and incident metrics reviewed.

- ✚ How to conduct the observation.
- ✚ How to complete the observation form.
- ✚ What do the behaviors mean?
- ✚ Feedback training including role playing (mentoring and coaching).
- ✚ Understanding that any employee can be observed at any time.
- ✚ General employee awareness.

New employees will be trained within (30) thirty days from the day they start work. Management will be trained on the topics listed above as well as the following topics:

- ✚ How to interpret feedback information.
- ✚ How to insure their departments are following this procedure.
- ✚ How to provide ongoing support for the BBS program.
- ✚ Purpose of the steering committee.
- ✚ How to set goals for their departments pertaining to BBS.

All Winger employees working in the field will be required to attend the awareness training (1) one hour.

Any employee participating in the program as an observer or the steering committee will be required to attend a (2) hour class on the complete BBS program.

Retraining shall be provided for each employee as necessary so that the employee maintains the understanding and knowledge acquired through the initial training.



SOURCE CREDITS

U.S. Department of Labor, Occupational Safety and Health Administration, www.osha.gov
Introduction to Behavior Based Safety, <https://www.oshatraining.org/pdf/otn717w.pdf>

DOCUMENT CONTROL

Initial Program April 6, 2018