

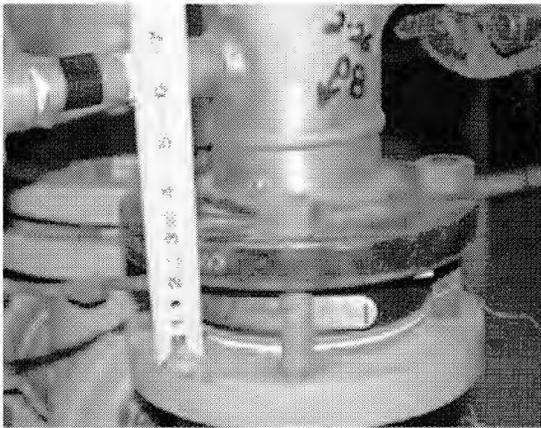
Activity 1: The Consequences of Failed Systems of Safety

Purposes:

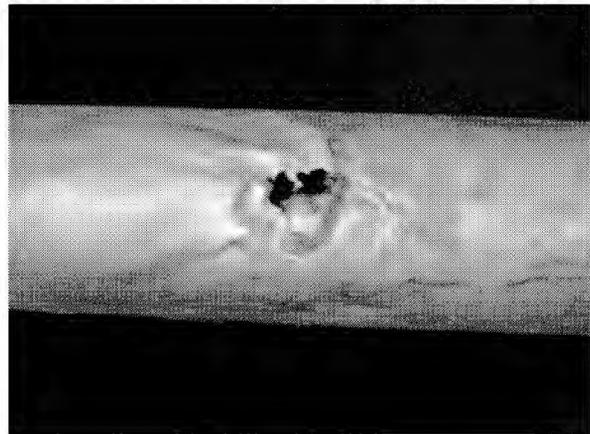
To examine the dangers associated with chemical releases.

To recognize multiple root causes of an incident and to eliminate or reduce hazards based on using Systems of Safety (S.O.S.).

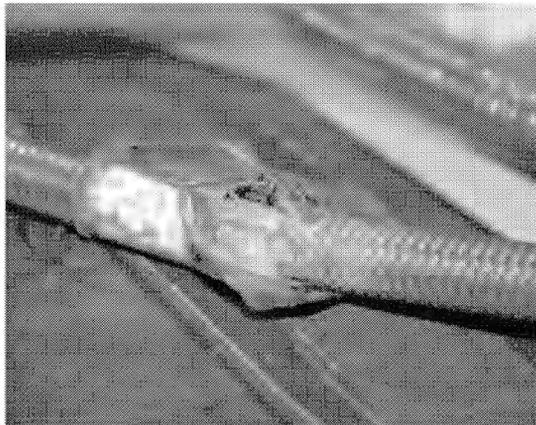
This Activity has two tasks.



Methyl Chloride Release



Oleum Release



Phosgene Release

Photos courtesy of the Chemical Safety Board, available at:
<http://www.csb.gov/assets/document/CSB%20Final%20Report.pdf>.

Task 1

Scenario:

Your facilitator will show a brief video on the Dupont chemical exposure tragedy that happened at the Dupont plant in Belle, West Virginia.

Note: For sites without video capabilities, the scenario has been printed below.

Fatal Exposure: Tragedy at Dupont, Belle, West Virginia

The Dupont Belle plant is located in Belle, WV, about eight miles east of Charleston, the state capital. The plant occupies about 723 acres along the Kanawha River and sits in an industrial, commercial and residential use area. The plant produces a variety of chemicals.

On January 17, 2010, a production unit was started up after extensive maintenance. Methyl chloride produced in a reaction vessel flowed through an open rupture disk and escaped through an improperly located drain hole. The hazardous gas vented indoors in an area not frequented by workers. Five days later, on January 22, an air monitor alarm inside the building alerted personnel of the release. Approximately 2,000 pounds of methyl chloride had escaped. Johnnie Banks, a CSB investigator, stated that, “When the rupture disk burst, an alarm was triggered; but our investigation found that, due to a history of false alarms, operators came to view this alarm as a nuisance that could be ignored.”

The following day, plant operators discovered another release. Oleum, a concentrated form of sulfuric acid, had (over time) corroded piping in the plant’s spent acid recovery unit. Steam from an attached copper tube mixed with the oleum and created a large hole in the pipe. Oleum escaped through the hole and formed a vapor cloud discovered by workers shortly after 7:00 a.m. on January 23. Approximately 22 pounds of oleum was released. Lucy Tyler, a CSB investigator, stated that, “The CSB found that Dupont had a previous oleum leak resulting in a company recommendation to conduct regular maintenance inspections of the oleum; but the CSB found this was not done due to ineffective communications between Dupont and its inspection contractors.”

The third in the series of accidents at the Belle plant came just six hours after the oleum release and it would prove fatal. It involved phosgene, an industrial chemical so toxic it was used as a chemical weapon in World War I. Phosgene severely damages lung tissue. This can result in a deadly buildup of fluid in the lungs, which may not appear until hours after the exposure.

The Belle plant's small lots manufacturing unit purchased phosgene in one-ton cylinders from an outside chemical company. The plant used the phosgene to manufacture five different pesticide intermediates. The cylinders were stored in a one-story, partially walled structure, called a phosgene shed, which was open to the atmosphere. During use, the cylinders were connected to other equipment by flexible, braided, stainless steel hoses. Inside each hose was a liner made of teflon or PTFE. One hose used nitrogen to pressurize the cylinder, pushing the liquid phosgene into the manufacturing process. An electronic scale recorded the weight of each cylinder and, when it was nearly empty, an alarm sounded in the control room. An operator then closed the valves to the empty cylinder and opened the valves to a second full cylinder. The stainless steel hoses to the empty container were purged of phosgene with nitrogen. The empty cylinder was then replaced with a new one on the weigh scale.

On the day prior to the fatal phosgene release, operators were experiencing flow problems with one of the hoses and began switching between cylinders to avoid disruption to the chemical process. In the course of switching cylinders, the valve was closed on a partially-filled cylinder. However, the hose was not purged, allowing pressure to build as the liquid phosgene inside warmed up.

Sometime between 1:45 and 2:00 p.m. on January 23, a worker was inspecting one of the cylinders when the pressurized hose suddenly burst. He was sprayed across his chest and face with a lethal dose of phosgene. Another worker was exposed to the deadly gas and a third was potentially exposed, but neither reported any symptoms. A total of two pounds of phosgene was released into the atmosphere. Small concentrations of the dangerous chemical were detected by monitors at the plant's fence line.

continued

Task 1 (continued)

The worker who had been sprayed with phosgene called for help and was transported to a local hospital. Four hours later, the worker's condition began to deteriorate rapidly. Despite medical treatment, he died the day after the accident.

Note: A diagram of the phosgene shed has been inserted on the next page as a visual aid.

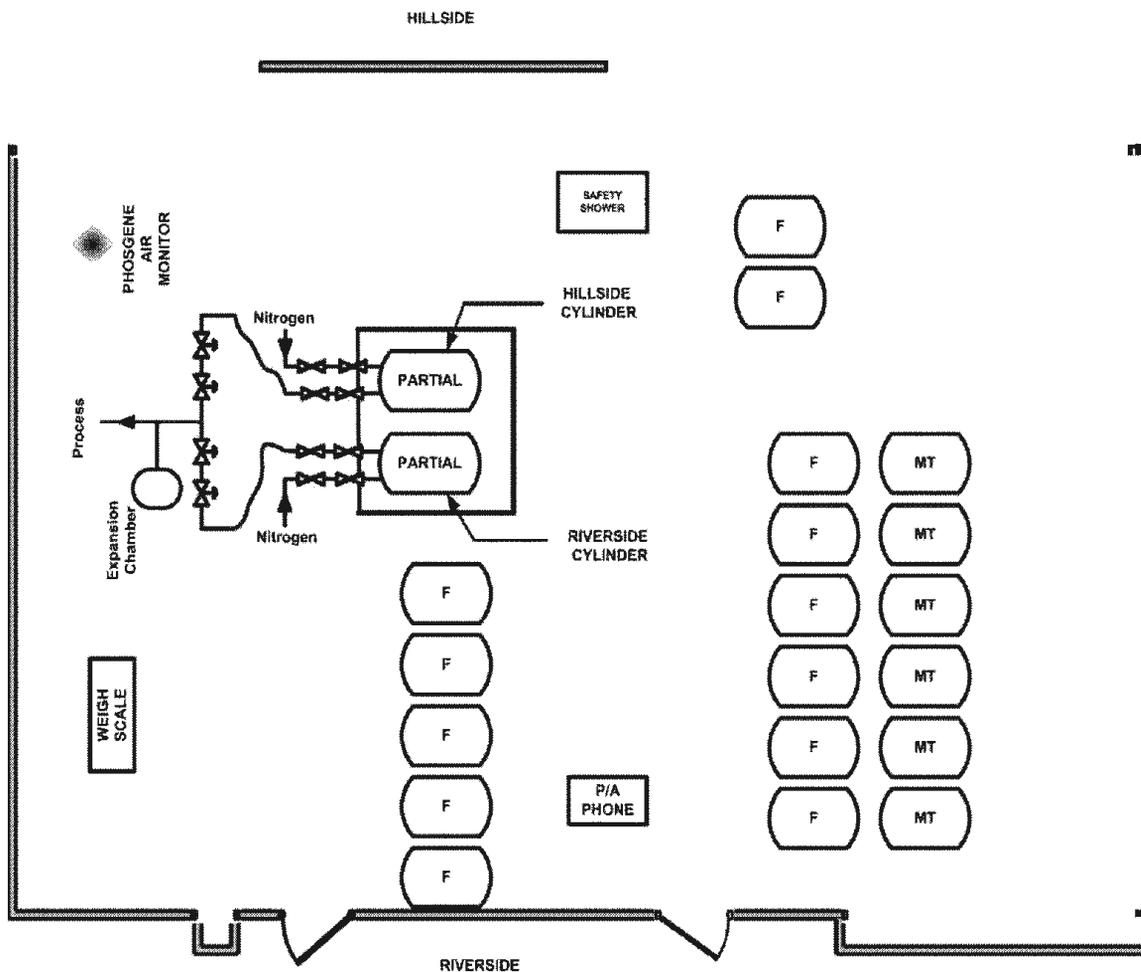
Facilitator's Note

Use the Factsheet Reading Method for Task 1, Factsheets 1 through 11, beginning on page 15.

The SOS Chart on page 14 should not be read as a Factsheet, but all should review.

Source: U.S. Chemical Safety Board, "Fatal Exposure: Tragedy at Dupont," September 22, 2011, available at: <http://www.csb.gov/investigations/detail.aspx?SID=92>.

Phosgene Shed Diagram Dupont Company Belle, West Virginia



Source: U.S. Chemical Safety Board, "Fatal Exposure: Tragedy at Dupont," September 22, 2011, available at: <http://www.csb.gov/investigations/detail.aspx?SID=92>.

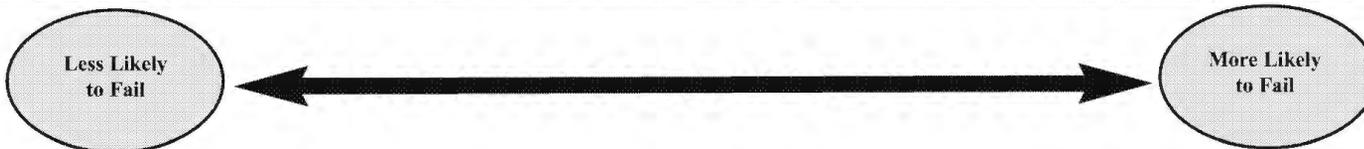
Systems of Safety and Subsystems

USW Systems of Safety

Strive to integrate system solutions or hazard controls here

Strive to avoid reliance on hazard controls here

Major Safety Systems	Work Organization Factors ¹						
	Design	Mitigation Devices	Maintenance and Inspection	Warning Devices	Training	Procedures	Personal Protective Equipment
<i>Hierarchy of Prevention and Control</i>	<i>Elimination or Substitution</i>	<i>Engineering Controls</i>	<i>Administrative Controls</i>			<i>Personal Protective Equipment</i>	
Levels of Protection	Highest	Middle				Lowest	



¹ Work Organization Factors exist in virtually all workplaces. They often contribute to a hazard *or its control*, or may be a hazard in and of themselves. They should be considered when identifying system failures and when integrating system solutions. They should also be accounted for when documenting failures and solutions.

A few examples of the above chart are listed below, but there are many other examples that are not listed.

Design	Mitigation Devices	Maintenance and Inspection	Warning Devices	Training	Procedures	Personal Protective Equipment
Equipment and Process Design	Safety and Check Valves	Inspection and Testing	Monitors	Hazard Identification	Well-defined, Up-to-date Operating Manuals	Air-purifying Respirators (APR)
Computer Hardware and Software	Suppression Devices	Vibration Monitoring	Hazard Warning Lights	Pre-job Training	Management of Change (MOC)	Self-contained Breathing Apparatus (SCBA)
Proper Material Selection	Emergency Isolation Devices	Quality Control	Facility Alarms	Relevant and Meaningful Training	Pre-startup Safety Review	Chemical Protective Clothing
Use of Inherently Safer Technologies and Chemicals	Relief Valves	Preventive and Predictive Maintenance Programs	Process Instrumentation Alarm Devices	Emergency Response Training	Job Hazard Analysis	Hard Hats, Gloves and Eye Protection
Work Organization						
Management of Organizational Change		Workload		Staffing		Buddy System

Revised March 2010

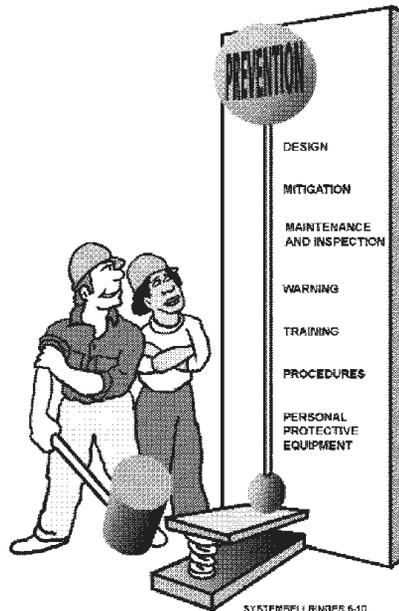
Factsheet 1: What Are Systems of Safety?

Most workplaces should have a developed program which contains some version of Systems of Safety. This program outlines, in detail, how the workplace will operate safely. This is a proactive program designed to prevent disasters and injuries from occurring.

The following components play key roles in eliminating or reducing hazardous conditions at the workplace:

- Design;
- Mitigation Devices;
- Maintenance and Inspection;
- Warning Devices;
- Training;
- Procedures; and
- Personal Protective Equipment.

Work Organization Factors should also be accounted for when documenting failures and solutions.



Source: Adapted in part from Harold Roland and Brian Moriarty, *System Safety Engineering and Management*, New York: John Wiley and Sons, 1983, p. 202.

Factsheet 2: The Design System

The highest level of hazard prevention is gained by using the Design System. Design involves the machinery and processes of work. This includes factors such as:

- Process and equipment design, including redesign — design out the hazard;
- Hardware and software — computer and electronic-controlled equipment and processes require proper installation of correctly designed programs;
- Selection of machinery, chemicals and other materials;
- Ergonomic design of equipment and control panels;
- Use of inherently safer technologies and chemicals (substitution of less harmful chemicals) choosing less toxic, reactive and flammable chemicals;
- Reducing the inventory of hazardous materials; and
- Safe Siting — providing a safe work environment.



If hazards are to be eliminated, workplace design must be improved to the greatest extent possible. Industry either designs hazards into the workplace or designs the workplace so that it is healthy and safe.

Examples of Design at home:

- Magnetic latches on refrigerators that prevent children from being trapped inside; and
- The switch-over to latex-based paints reduced lead exposure.

Source: Adapted in part from Nicholas Ashford, *The Encouragement of Technological Change for Preventing Chemical Accidents*, A Report to the Environmental Protection Agency, Cambridge, MA: MIT, 1993.

Factsheet 3: The Mitigation System

The Mitigation System of Safety involves the use of equipment that automatically acts to control or reduce the harmful consequences of hazardous incidents. Mitigation should be automatic and reliable.

Typical examples of mitigation devices are:

In industry:

- Safety and relief valves;
- Suppression devices;
- Automatic shutdown devices;
- Emergency isolation devices;
- Dikes;
- Machine guarding; and
- Containment devices.

At home:

- Seat belts;
- Air bags;
- Circuit breakers; and
- Pressure relief valve on water heater.



Factsheet 4: The Maintenance and Inspection System

Properly designed equipment can turn into unsafe junk if it isn't properly maintained, inspected and repaired. If the phrase "if it ain't broke, don't fix it" is used within a workplace, the maintenance system is a failure. If you don't use preventive maintenance, then you end up doing breakdown maintenance. For example:

In industry:

- Preventive and predictive maintenance programs are in place;
- Work repair requests are completed in a timely fashion;
- Spare parts are readily available;
- Equipment is inspected for wear and damage;
- Maintenance workers are properly trained;
- Much needed repair work is not delayed for production requirements; and
- Vibration monitoring and records are kept on critical machinery.

At home:

- Preventive maintenance (checking air in tires);
- Inspection (checking tires for wear);
- Predictive maintenance (replacing worn tires); and
- Breakdown maintenance (changing a flat tire).



Factsheet 5: The Warning System

The Warning System of Safety includes the use of devices that warn of a dangerous, or potentially dangerous, situation. These devices require a person's intervention to control or mitigate the hazardous situation.

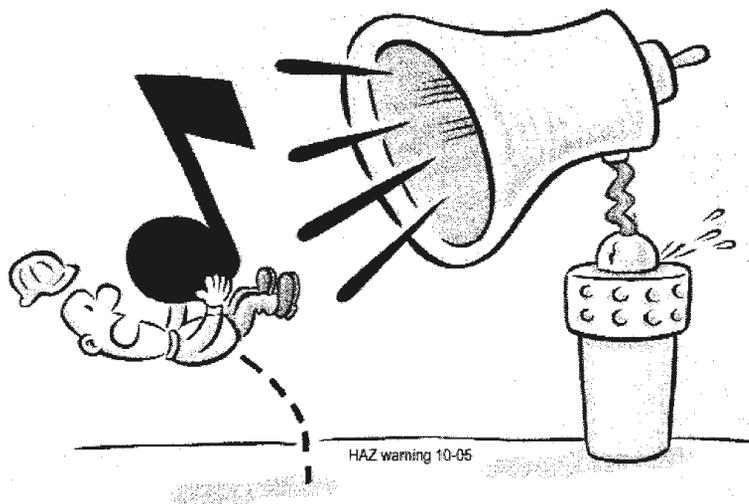
Examples of warning devices include:

In industry:

- Fire, spill and evacuation alarms;
- Control room alarms;
- Worker-in-trouble alarms;
- Fixed continuous monitors and alarms for hazards and toxic releases; and
- Back-up alarms on vehicles.

At home:

- Smoke alarms;
- High temperature or low oil light on an automobile; and
- Weather alerts and warnings.



Factsheet 6: The Training System

The operation and maintenance of processes that are dangerous require an effective training system. The greater the hazard, the greater the need for training. Examples of training include:

In industry:

- Hazard identification and response;
- Regulations which apply in your workplace;
- Emergency response; and
- Sources of information for your industry.

At home:

- Training to identify hazards at home;
- What to do in case of a fire; and
- What to do in case of a medical emergency.



Factsheet 7: The Procedures System

The operation and maintenance of processes that are dangerous require a system of written procedures. The greater the hazard, the greater the need for procedures.

Elements of an effective procedures system include:

In industry:

- Permit programs for hot work, lock and tag, confined space, etc.;
- Procedures for emergency response plans; and
- Operating procedures.

At home:

- Procedures for programming a VCR;
- Procedure for cardiopulmonary resuscitation (CPR); and
- Evacuation procedures and fire drills.



Factsheet 8: Personal Protective Equipment

The Occupational Safety and Health Act guarantees all workers in the United States the right to a workplace free of recognized safety and health hazards. Though we have strived for this goal, we must continue to strive to achieve it.

Past views of workers' role in health and safety:

- Hold that workers' primary contribution to health and safety is wearing Personal Protective Equipment and being continually monitored to make sure they are complying; and
- Places the primary emphasis on Personal Protective Equipment to compensate for hazards that industry has built into or failed to eliminate from the workplace.



A few examples of Personal Protective Equipment which should be identified and used after efforts have been made to eliminate the hazards include:

In industry:

- Air-purifying respirators (APR);
- Air-supplied respirators;
- Self-contained breathing apparatus (SCBA);
- Chemical Protective Clothing; and
- Hard hats, hearing and eye protection and safety shoes.

At home:

- Dust masks;
- Gloves;
- Eye protection; and
- Hearing protection.

Factsheet 9: Work Organization and Workplace Health and Safety

Work organization is about the control of work and the division of labor. It includes:

- The tasks performed;
- Who performs them; and
- How they are performed.

Many workplaces are undergoing massive changes in the ways in which work is organized, often made possible by innovations in information and communications technologies.

New forms of work organization must be evaluated with attention to their potential to harm workers and workplace health and safety. Examples of work organization factors include:

- Combined jobs;
- Multi-tasking;
- Reduced staffing levels;
- Increased workload;
- Work intensification;
- Increased work pace;
- Electronic performance monitoring;
- Use of temporary workers;
- Use of contract workers;
- Extended working hours, days or weeks; and
- Alternative work schedules.

A growing body of research and investigations in the United States and around the world has linked certain work organization factors with increased risk of job injury, illness, stress and death and with catastrophic workplace events such as explosions. For example, the U.S. Chemical Safety and Hazard Identification Board (CSB) 2007 report “Investigation Report: Refinery Explosion and Fire (15 Killed, 180 Injured), BP, Texas City, Texas, March 23, 2005” (Washington, DC: CSB), made a connection between hours of work/extended shifts and the risk of explosions or other acute, traumatic catastrophes.

Sources: Lessin, Nancy and Kojola, Bill, “Work Re-Organization: A Hazard to Workplace Health and Safety,” *AFL CIO Fact Sheet*, January 2006; Landsbergis, P.A., Cahill, J., and Schnall, P., “The Impact of Lean Production and Related New Systems of Work Organization on Worker Health,” *Journal of Occupational Health Psychology*, 4(2): 108-130, 1999; and U.S. Chemical Safety and Hazard Identification Board (CSB), “Investigation Report: Refinery Explosion and Fire (15 Killed, 180 Injured), BP, Texas City, Texas, March 23, 2005,” Washington, DC: U.S. CSB, 2007.

Factsheet 10: Worker Involvement Creates Strong Systems of Safety

Many sites have Health and Safety Committees. These committees have workers who usually concentrate their activity on:

- Handling worker complaints;
- Promoting injury rate reduction goals; and
- Evaluating and recommending changes/enhancements to existing systems.

The best scenario takes place when workers are involved in creating or changing Systems of Safety.

OSHA recognizes in their Process Safety Management (PSM) Standard that:

- Active worker involvement in the development and use of process Systems of Safety is essential for the prevention of disasters; and
- Workers have a unique understanding of the hazards related to the processes that they operate and maintain.

A report published by the Environmental Protection Agency made the same point:

“. . . operators have traditionally been more aware than management of the frequency, severity and nature of chemical incidents. Similarly, workers are often more aware of the ineffectiveness of Personal Protective Equipment and other mitigation devices. Were the company’s technological decision-making to be informed by such worker insights, primary prevention would be significantly encouraged.”

Source: Ashford, Nicholas, *The Encouragement of Technological Change for Preventing Chemical Accidents*, A report to the Environmental Protection Agency, Cambridge, MA: MIT, 1993.

Factsheet 11: Eliminate the Hazard with the Design System of Safety

You can design within any System of Safety, **but a true Design fix is the one which eliminates the hazard.**

For example: A worker is exposed through inhalation to a hazardous chemical which was being used in a cleaning process. The worker's respirator leaked. Suggested recommended fixes were:

1. **Design** and make a new respirator for the worker to wear. Is this an effort to eliminate the hazard? **No!** It is a fix in the Personal Protective Equipment System of Safety.
2. **Design** a new procedure which makes it less likely that the worker will be exposed. Is this an effort to eliminate the hazard? **No!** It is a fix in the Procedures System of Safety.
3. **Design** a training program which will address selection and wearing of respirators. Is this an effort to eliminate the hazard? **No!** It is a fix in the Training System of Safety.
4. **Design** a warning system to alert the worker when the concentration of the chemical reaches a certain point. Is this an effort to eliminate the hazard? **No!** It is a fix in the Warning Devices System of Safety.
5. **Design** a better maintenance and inspection program to maintain the ventilation system, reduce tripping and slipping hazards and make the job safer overall. Is this an effort to eliminate the hazard? **No!** It is a fix in the Maintenance and Inspection System of Safety.
6. **Design** a better ventilation system which will remove most of the dangerous fumes. Is this an effort to eliminate the hazard? **No!** It is a fix in the Mitigation System of Safety.
7. **Design** the cleaning process to use a cleaning agent that is not dangerous to workers. Is this an effort to eliminate the hazard? **Yes!** It is a fix in the **Design System of Safety.**

Task 1 (continued)

In your groups, using the information from the video/scenario, your knowledge and the factsheet discussion, make a list of facts that led to the two near-misses/incidents and the fatality and the failed System of Safety for each fact. Use the chart below. (Note: You can refer to the scenario on pages 10 through 12.)

Facts that Led to Fatality	System of Safety that Failed
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	

Notes:

Task 2

Determine a fix for each of the system failures listed in Task 1 and decide which System of Safety each fix falls under.

Fixes	System of Safety
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	

After the class has completed Task 2, the facilitator will show the remainder of the video to reveal the Chemical Safety Board's (CSB) findings and recommendations.

Facilitator's Note: Sites without video capabilities will use the information sheet in the Trainer's Notebook to report to class.

Notes:

Summary: The Consequences of Failed Systems of Safety

1. Major Systems of Safety (in order of effectiveness):

- Design;
- Mitigation Devices;
- Maintenance and Inspection;
- Warning Devices;
- Training;
- Procedures; and
- Personal Protective Equipment.

Work Organization should also be accounted for when documenting failures and solutions.

- ### 2. Workers should first look to the Design System to address hazards. Personal Protective Equipment should always be the last line of defense.

Tony Mazzocchi Center Proficiency Assessment

Activity 1: The Consequences of Failed Systems of Safety

Learning Objectives:

- 1. To examine the dangers associated with chemical releases.** How much do you agree or disagree that the **training met this learning objective?**
 Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree
- 2. To recognize multiple root causes of an incident and to eliminate or reduce hazards based upon Systems of Safety.** How much do you agree or disagree that the **training met this learning objective?**
 Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree
- 3. A true Design fix is one which eliminates the hazard.** How much do you agree or disagree with the following statement? Understanding and applying this learning objective **will assist me in improving health and safety at my workplace.**
 Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree

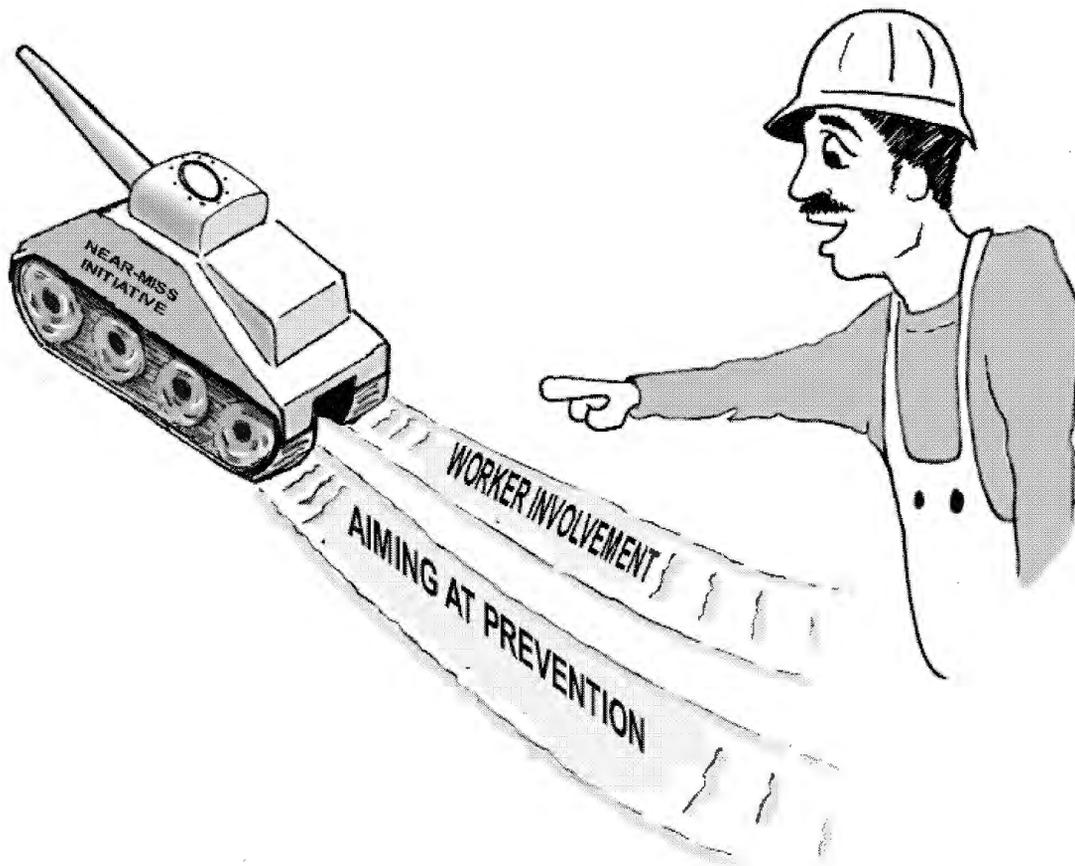
Activity 2: HAZWOPER Training — Changing a Workplace

Purposes:

To examine ways in which HAZWOPER training can be directly applied to making your workplace safer.

To determine what parts you can play in this important effort and then to decide if you will.

This Activity has two tasks.



Task 1

1. Your trainers will go through Factsheet 1 with you.
2. As a full group, read the USW's definition of a near-miss in the box below. Then, based on your experiences in your workplace, brainstorm some examples of near-misses or hazards that are accidents or incidents waiting to happen. So, think about both near-misses and hazards. The trainers will scribe examples you give.

NEAR-MISS DEFINITION: An event in which one or more workers are exposed to a significant chance of harm but no harm occurs.

A situation that threatens the environment or property, even if there are no people present at the time.

While we are all in the mindset of thinking about near-misses and hazards that could become accidents or incidents, individually complete the next four steps (3 through 6):

3. Take a few minutes to think about recent near-misses or hazards that could become accidents or incidents in your work area or another work area.
4. Choose one near-miss or hazard and describe it.
5. Individually, fill out a near-miss reporting pocket form that the trainers will give you. Putting your name on it is optional. If you do put your name on it, that information will NOT go to the employer.
6. Hand in your pocket form.

Factsheet 1: Overview of Our Near-Miss Reporting Initiative to Make This Workplace Safer

As you saw in Activity 1, there's a lot from HAZWOPER training that we can apply to make things safer at our workplace. With that in mind, leaders from your local union (local union leadership, TOP Rep. [where applicable], health and safety reps., health and safety committee members and health and safety trainers) have developed a **health and safety action plan to increase reporting of near-misses and hazards**. This action plan also identifies key steps that we need to take to reach the goal of increasing near-miss and hazard reporting.

To reach this goal, we need the support and action of both local union leadership and the workforce.

NEAR-MISS DEFINITION: An event in which one or more workers are exposed to a significant chance of harm but no harm occurs.

A situation that threatens the environment or property, even if there are no people present at the time.

This Near-Miss Reporting Initiative is *NOT* about workers observing other workers and their behaviors. We are identifying near-misses and hazards, which have the potential to become accidents or incidents.

Hazards which have the potential to injure workers or cause damage are an important part of this initiative and need to be reported.

continued

Factsheet 1: Overview of Our Near-Miss Reporting Initiative to Make This Workplace Safer *(continued)*

Near-Miss and Hazard Examples

Here are some examples of near-misses and hazards:

NEAR-MISS	HAZARD
Faulty valve almost sprayed a worker, but the worker jumped out of the way.	Faulty valve that could expose workers to dangerous chemicals.
Suspended load slips, although no one was hurt.	Suspended crane load in an unrestricted access area.
Worker tripped and almost fell on a raised area of a designated walkway.	Raised area in a designated walkway.

Near-Miss/Hazard Responsibilities:

In a nutshell, here are the responsibilities that workers and employers have related to near-misses and hazards:

Workers: *Report* near-misses and hazards.

Employers: *Fix or eliminate* hazards or conditions that are the sources of near-misses.

Near-Miss Reporting Pocket Form:

As part of making sure we meet our responsibilities, we have a new Near-Miss Reporting Pocket Form that makes it easy to report near-misses and hazards. The Pocket Form asks for:

- A short description of the near-miss or hazard;
- Any ideas on how to fix it; and
- The location of the situation.

The copy that goes to the employer will not have your contact information on it.

It takes about two minutes to fill out a Pocket Form which could make your workplace safer.

Task 2

Your trainers will go through Factsheet 2 with you.

Your trainers will review the “Big Push” handout on the pages that follow. Your trainer will also do a summary of the Near-Miss Reporting Initiative Plan that the Leadership Team developed and that you can add to.

Your trainers will now go over the “My Contribution” sheet (page 45) with you, which is based on the handout we just reviewed. If you have any other suggestions of ways workers can be involved, please let us know.

On your own and then as a full group:

- 1. Working *individually*, select one or two activities you will commit to.**
- 2. Fill out the “My Contribution” sheet. As you can see, something like signing up for number 1 is just saying you’ll report near-misses and hazards; it’s not getting more involved than that.**
- 3. During the report-back, your trainer will have each person who made a commitment say what they intend to do.**
- 4. Hand in your “My Contribution” sheet to a trainer.**

Factsheet 2: Our Near-Miss Reporting Initiative Plan

Thank you for reporting on the near-misses and hazards that you brainstormed today. Our Near-Miss Initiative Coordinator will submit them, track them and provide feedback.

We are all learning about safety, but there's often a gap between what we know and what we do. We all know there are many, many not-yet-reported near-misses and hazards we are surrounded with every day. Some of these we don't even notice anymore because they just blend into the landscape after we see them or "work around" them for so long.

At any time, hazards or near-misses can become accidents or incidents. No hazards are trivial.

We believe that workers are in the best position to bring these issues to the attention of the employer. The Leadership Team has taken the step of coming up with an action plan focusing on reporting near-misses and hazards. The idea here is to take our safety training and apply it to make things safer.

We are looking for your feedback and commitment to be a part of this.

Notes:

USW Makes Big Push to Increase Reporting of Near-Misses and Hazards

The union's goal:

To significantly increase the number of near-misses and hazards identified and reported.

A near-miss is:

1) An event in which one or more workers are exposed to a significant chance of harm but no harm occurs. 2) A situation that threatens the environment or property, even if there are no people present at the time.

Why near-misses are so important:

- Before most serious accidents, there are near-misses that either caused minor harm or no harm. We should see these as warning signs.
- All incidents and near-misses are based on uncontrolled hazards — the root problem.
- So, we must recognize that hazards have the potential to become near-misses or incidents.
- Often, the hazards we accept as normal are the most dangerous.

Why reporting near-misses is so important:

- Unaddressed near-misses lead to harm to workers, the environment and property.
- Incidents often happen when a number of hazards come together in unexpected ways. To prevent these, we must learn from and correct the hazards that have the potential to become near-misses or incidents.
- Workers, their union and its representatives play a key role in identifying and reporting near-misses and hazards.
- Workers and union representatives also play an important role in recommending fixes that can best either eliminate the hazard or control it in the safest way possible.

- It's also the union's job to push for the safest fixes and to monitor the issues until the employer resolves them. It's the employer's job to eliminate or fix the hazards.

Our Local's plan: How we'll get to our goal *with your help*:

1. Report near-misses and hazards.
2. Encourage other workers to report near-misses and hazards.
3. Report near-misses and hazards on behalf of other workers.
4. Report key information related to near-misses and hazards to union health and safety reps., trainers, stewards and committee members.

NEAR-MISS REPORTING INITIATIVE SUCCESS MY CONTRIBUTION

This information is only for our use and will not be forwarded to employers.

A. I am committing to the following: *(Add any ideas that came up in class. Then mark all that apply.)*

- 1. Report near-misses and hazards.
- 2. Encourage other workers to report near-misses and hazards.

If you are also signing up for Nos. 3, 4 or anything else added below, please include your contact information so we can provide additional support for your efforts.

- 3. Report near-misses and hazards on behalf of other workers.
- 4. Report key information related to near-misses and hazards to union health and safety reps., trainers, stewards and committee members.
- 5. _____
- 6. _____

B. If you signed up for 3, 4 or “other” items above, please add your contact information:

Name *(print)* _____

Best way to contact me: _____

C. Any additional comments: _____

THANK YOU!



Spontaneous Near-Miss Reporting

We would like to use today's class as an opportunity to begin reporting near-misses at our workplace. As we go through the different activities today, think about hazards or conditions that might cause incidents or accidents to happen at your workplace. When you identify one, shout out "Near-Miss." The trainer will then provide you with one of the Near-Miss Reporting forms discussed in this Activity. Fill it out. At the end of the class the trainer will collect all that have been filled out during the course of the class.



