

December 15, 2021

Equipment 'fix' came up way short: Worker killed in explosion

Was there a rush to get production back on track?

“As if we didn’t have enough old equipment to deal with,” sighed Bill, the plant manager.

“What’s the matter now?” asked Charlie, one of the plant supervisors.

“Didn’t you hear? Work’s practically ground to a halt right now,” said Bill.

“Maintenance is working on the kettle reactor again,” Bill continued. “If they can’t seal it properly, then it’s time we put it out of commission.”

“I don’t think that’s an option right now,” said Charlie.

“What do you mean?” Bill asked.

“Come on, we don’t have the funds to replace that kettle now,” Charlie whispered. “We’re running with some equipment that should’ve been replaced five years ago.”

Pressure on to get equipment running

“Now that’s not exactly the case,” said Bill. “We’re not flush with cash right now, that’s true. Plenty of companies like us are in the same boat.”

“As long as Maintenance says they can fix the problem, we’re good to go,”

(Please see Equipment ... on Page 2)

Sharpen Your Judgment

Worker ignored safety rule: Sues company

“Jonathan’s suing us for negligence,” said Al, the company attorney, getting right to the point. “So I need to review the details of his accident with you.”

“There isn’t much to review,” Safety Director Chris Taylor said. “Jonathan knew our safety procedures and he didn’t follow them. That’s how he got hurt.”

Policy is to get away immediately

“Explain to me how this coil fell on him in the first place,” Al said.

“Sure,” Chris replied. “We wrap steel wire around hooks. Once the coil is completely

wrapped, we tie it down and the forklift carries it to the trucks.”

“And a coil slipped off the hook?” Al asked.

“Yes. And our safety rules say if a coil starts falling, you run away,” Chris said. “Instead Jonathan stupidly tried to push it back on.”

“A full coil can weigh hundreds of pounds,” Chris went on. “That was just foolish of him.”

“You’re sure he knew that rule?” Al asked.

“Absolutely,” Chris said. “He’s even cleared away from falling coils in the past. It’s not like it caught him off guard.”

The company fought to get the lawsuit dismissed. Was it successful?

This regular feature sharpens your thinking and helps keep both you and your firm out of trouble. It describes a real legal conflict and lets you judge the outcome.

Make your decision, then please turn to Page 4 for the court’s ruling.

Equipment ...

(continued from Page 1)

said Bill. “We’re not about to compromise anyone’s safety!”

“That’s good to know,” said Charlie. “But when you get a few minutes, we should talk about some much-needed upgrades.”

“You got it,” said Bill. “Now let me go check on that equipment.”

Equipment gets the all-clear

“I wanna hear good news!” Bill called to the maintenance crew. “We’re at least two hours behind today.”

One of the maintenance techs said, “It’s fixed – for now,” he said.

“Can’t guarantee it’s going to keep humming along for the long haul though,” the tech pointed out.

“Duly noted,” said Bill. “We’ll keep a close eye on her.”

Workers fired up the repaired kettle and began coating products backed up on the assembly line.

All seemed fine ... until – “SHRooooommm!”

A terrible blast shook the building so hard employees lost their balance and fell to the floor.

“Fire! Fire!” someone yelled and everyone started looking for the closest route out.

Couldn’t hold under pressure

A machine operator who was working near the kettle died in the blast and subsequent fire that tore through the plant floor.

Eight other employees needed emergency medical care.

The accident report showed the manway cover and gasket on the kettle reactor vessel failed and leaked flammable vapors.

A spark from a power tool or nearby machine ignited the vapor cloud, sparking the deadly blast.

Process safety reg not followed

OSHA took the facility to task for a litany of safety violations, such as failure to:

- follow OSHA process safety management standard and industry (American Petroleum Institute) guidelines for pressure vessel inspections

What you need to know:

OSHA’s process safety management standard covers any process involving threshold quantities of flammable liquids or gases (10,000 lbs), as well as 137 listed highly hazardous chemicals. (It also applies to manufacturers of explosives.)

- ensure the vessel maintained its pressure-containing ability before putting it back into service
- provide sufficient PPE, and
- train workers on hazardous

waste operations and emergency response (HAZWOPER).

Total fine: \$709,000.

OSHA placed the business in its Severe Violator Enforcement Program – failure to correct citations will bring more fines and a possible shutdown.

No doubt the deceased employee’s family will sue for damages, but no amount of money can bring back their loved one’s life.

Info: [osha.gov/news/newsreleases/region5/10072021](https://www.osha.gov/news/newsreleases/region5/10072021)

TEST YOUR KNOWLEDGE

Dealing with workplace stress: Warning signs

If jobs were all fun and games, we wouldn’t call it “working.” But too much stress can take a toll on employees’ health.

See how much your workers know about handling stress with this True or False quiz.

1. Stress only impacts workers’ mental health.
2. Signs of stress include feeling anxious or irritable and trouble sleeping or concentrating.
3. It’s the company’s job to prevent stress. As a worker, you can only do what they tell you.
4. Workers today aren’t as tough as in the past. Stress was never a problem in the past – workers just sucked it up and did their jobs.
5. If you’re feeling stressed, resist the urge to pour yourself another cup of coffee or light up a cigarette.

ANSWERS

1. **False.** Stress has physical effects too. It can lead to aches and pains, and even makes you more susceptible to the flu or common cold.
2. **True.** Other signs of stress include apathy or loss of interest and using drugs or alcohol to cope. Recognizing symptoms is the first step toward getting better.
3. **False.** There are ways you can help yourself too. Getting regular exercise and eating healthfully are two key factors to limiting the effects of stress.
4. **False.** It’s not about mental toughness. Stress can happen whenever the demands of a job weigh heavily on a worker, regardless of mental makeup.
5. **True.** Caffeine actually increases stress hormones, and cigarette smoking causes long-term stress levels to rise.

Answers to the quiz:

Fines, accidents and damage supervisors could've prevented

News you can use to head off safety mishaps

In this regular section we highlight situations that led to fatalities, injuries, near-misses, damaged equipment or fines that frontline supervisors could've prevented.

Fatal safety mistakes lead to drowning in manure pit

What happened: A 44-year-old employee accidentally drove a vacuum truck into an unguarded, 12-foot-deep manure pit. He was unloading manure before the accident. The driver wasn't able to escape from the submerged cab and drowned.

What people did: Shelton Dairy in Lasalle, Colorado, didn't properly guard the edges of an open manure pit. OSHA wrote the dairy up for not:

- protecting employees from drowning and crushing hazards
- implementing a hazard communication program, and
- training workers on chemicals.

Result: A lawsuit by the employees' family left behind is almost certain. An OSHA fine of \$24,575 won't help the dairy's case in court.

Workers not protected from toxic solvents

What happened: Employees at an aircraft parts manufacturer were exposed to carcinogenic hexavalent chromium (HC) and cadmium while electroplating, mixing and preparing, and painting and removing paint on small aircraft parts.

What people did: OSHA inspected Kaman Air Vehicles in Bloomfield, Connecticut, as part of its national emphasis program

on HC hazards. The company failed to:

- provide employees with info on HC and cadmium
- train on chemical hazards
- examine nostrils of exposed employees periodically
- determine employees' exposure to both chemical solvents
- label tanks containing hazardous substances with health info
- provide personal protective equipment including chemical-resistant gloves, impervious aprons and respirators, and
- implement controls and work practices to reduce overexposure.

Result: Kaman must pay \$308,168 in OSHA penalties.

Wide range of hazards need to be fixed ASAP

What happened: Two complaints about unsafe working conditions brought OSHA inspectors out to this employer.

What people did: BCP Ingredients, a nutrition plant in Verona, Missouri, took safety shortcuts that OSHA didn't fail to document in its inspection:

- amputation hazards due to lack of machine guarding and lockout/tagout procedures
- chemical exposure to ethylene oxide and methylene chloride because of inadequate process safety management procedures
- combustible dust and electrical wiring hazards, and
- fall risks of greater than four feet high above the floor.

Result: BCP can expect a follow-up inspection after a \$300,759 hit.

SAFETY TRAINING TIPS

■ Let workers pick your next safety talk topic

There are always plenty of options to choose from when it comes to safety talk topics. So how can you decide which one is best?

You don't have to.

Try coming up with five different topics that you could give your next safety talk on.

Ask workers at the end of a training session to rank each on a scale of one to five: One being the most useful, five being the one they're most comfortable with.

When they're done, you can tally the results and get a better idea of what to address.

Bonus: If a worker selects a topic that the rest of the group didn't find useful, you can offer him or her extra help on the side.

Or you can add a quick, mini training session on that topic at the end of your next talk.

That way, everyone's concerns get addressed.

■ Water accumulation & trenches a deadly combo

When working in a trench, employees should know that if they see water accumulating they need to get out right away.

This is because water will not only cause weakened trench walls, but can also cause the soil "floor" to become muddy and impede attempts at escape should something go wrong.

Example: A worker at a Colorado excavating company was recently killed in a trench collapse when his feet became stuck in mud under water that had accumulated in the 16-foot deep excavation.

3 ways to make online safety training better: Active participation, not watching, is key

Training expert shares what works best for her

Are you looking to take online training to the next level?

Consider these three steps:

1. Focus on learning objectives

When reviewing learning objectives, make sure they are clear, focused and measurable.

Good learning objectives need to satisfy this general question: At the end of the training, do the participants know the training objective or not?

Determine how you'll know whether trainees understand training.

An example of a question you might ask trainees: "What's the benefit of this training?"

2. Build in activities

In online training, trainees aren't in the same room as you.

That doesn't mean all they should be doing is watching the screen.

Use games, online polling, item hunts ("find me an example of ..."), on-screen demonstrations, etc.

Also: "Find an item" activities allow participants get up, move around, stretch and take a quick break.

3. Make sure workers are engaged

This is the most important factor in any type of safety training – that attendees are engaged.

Zoom fatigue is real. As a facilitator, conducting online training makes you wonder if attendees are actually listening

Trainees may also become distracted. Think about ways to reduce that.

If the training is asynchronous (not live, attendees works at their own speed), design the module so the person needs to be regularly using the mouse to do something.

If it's synchronous (live) training, use the four-minute rule: Focus on one thing for no more than four minutes.

Strong beginnings and endings to training are also important. The finish should have a call-to-action: What do you want the trainees to do afterward?

(Based on a presentation by Marilyn Hubner, Managing Director, Buildup Research, Melbourne, Australia, at the ASSP September 2021 conference)

What you need to know:

As a trainer, you always want trainees to get the gist of why what they're learning really matters.

Trainees should be able to come up with satisfactory answers to the following three questions following any kind of training lesson. If they can't, it's a sign that you missed something:

- What is the benefit of the training?
- How does this improve safety?
- Is this training lesson required by OSHA or other regulatory agency?

Sharpen Your Judgment – The Decision

(continued from Page 1)

No. A jury awarded the injured worker \$780,000.

The company argued the worker knew its safety rule: If a load started to fall, it was the worker's responsibility to get out of the way as quickly as possible.

It argued the worker must have known this rule because he had escaped similar situations in the past.

The jury saw things differently: If the worker's life was in jeopardy before from falling coils, it meant the company must have known of a dangerous condition.

Because of that, just running away wasn't an acceptable safety plan. It said it was on

the company to address the root cause of the dangerous situation.

The worker collected payment for pain and suffering and future lost earnings.

Analysis: Comprehensive plan needed

Telling workers to get away from dangerous situations may be part of an effective safety plan – but it can't be the whole plan.

It's important to consider the potential hazards of any job and to find ways to lessen those dangers. That's especially true if there have been near-misses in the past.

Based on Katy Springs v. Favalora.

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Supervisors Safety Bulletin (ISSN 1528-9834), issue date December 15, 2021, Vol. 22 No. 524, is published semi-monthly (24 times a year).

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