



40 Years of Safety Shares



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Abstract

Based on 40 years of experience in the mining industry, the author presents a number of safety stories with lessons learned, ideas, and things to think about.

Key Words: Health and Safety, Mine Safety, Safety Shares, Safety Culture

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Introduction

Over the years I have given many safety shares. I like to write my own. Story telling is an important part of leadership and culture building and it is what safety shares are all about. I try to apply my own rules of storytelling to my safety shares. Those rules are:

- Keep it personal; I can tell it as a first-person narrative.
- People can relate to it.
- It is based on a true story. It is genuine.
- The story reinforces the message; it is not a digression.
- There is a call to action at the end. Without action, there is no way to make a difference.
- It is memorable.



The following safety shares are gleaned from my life experiences. Some are lessons learned. Many of them are lessons unlearned as well. I have offered ideas, or itemized lessons learned or offered opinions to each, hopefully to generate some takeaways and to get people thinking. I have tried my best to eliminate any reference to individuals or the mine or the companies involved. You will see that these safety shares need no specific reference to make their point.

Some of these I have never told before. Unshared safety shares. Until now.



Life is a Highway

I am driving to Montreal on the 401. Nice day, the sun is shining, there are a number of things I would rather be doing than driving on such a nice day, but I am going to the CIM Convention, which is always a great event, so I am in good spirits. I have my tunes cranked up, I can't remember what exactly was playing, Colin James maybe?

Someone passes me, going at a pretty good clip. I figure 125k/hr. at least. Of course, according to George Carlin anybody driving slower than you is an idiot, and anyone going faster than you is a maniac.



So, this maniac drives past me. I look at the driver, I guess I am channeling Clark Griswold and hoping it is Christie Brinkley driving by, but of course it isn't.

The driver is a young guy who thinks he is smart but has low street IQ and will have a disappointing and relatively short life span even though he is young. How do I know all this?

Do I have some kind of Sherlockian talent for analysis of minutiae? No, in fact just the opposite, I am not really a detail person.

Am I a seer of futures, a mystic who mentally reads the cards, tea leaves and palms of a person by a passing glance. No, in fact I have trouble remembering what is on the calendar for tomorrow, and I have to write down the grocery list if it is more than two items long.

So how can I discern the future of this complete stranger? How do I know that he is not that bright, and will have either a short or a troubled life?

One simple observation, he was texting while driving at 125km on a very busy 401.

Then I watched him cutoff a car in the other lane as he headed for the off ramp near Cornwall.

Distracted driving is dangerous driving, simple as that, and if it doesn't shorten your own life span, which is a sad result of sending an emoji to a sorta-friend, it could shorten someone else's life, which is an absolute tragedy.

Something to Think About: Distracted driving, drunk driving, drugged driving. The solution is a simple as the culprits. Just don't do it.

The solution is a simple as the culprits. Just don't do it.



See and Be Seen



I remember my first supervisor when I was a student telling me that just because I can see the operator, it doesn't mean the operator can see me. We are all use to operating a vehicle with some blind spots, a car, a truck. But this advice really hit home for me the first time I operated a scoop, and it was only then I really understood the limited visibility an operator has. My third summer as a mining student I worked at an open pit and drove a pit truck. I thought a scoop had limited visibility, but a big pit truck is a whole other level of blind spots.

Even today while walking the dog I wave at passing cars. Some may feel sorry for the old man in the reflective vest, and they wave, then I know they have seen me. Or they don't wave. If they have tinted windows I'm probably in the wrong neighborhood.

Idea: During your UG orientation have new employees sit in a scoop or truck cab to experience for themselves the limited visibility an operator has. In an open pit have them sit in a haul truck.

Don't Fall Down the Shaft

The advice I got from the shaft superintendent on my first shaft project was "Don't drop anything down the shaft, you might hit one of my good shaft men." He started to walk away but then turned around and as an afterthought added another instruction. "And don't fall down the shaft, you might hit one of my good shaft men."



Don't fall down the shaft, you might hit one of my good shaft men.

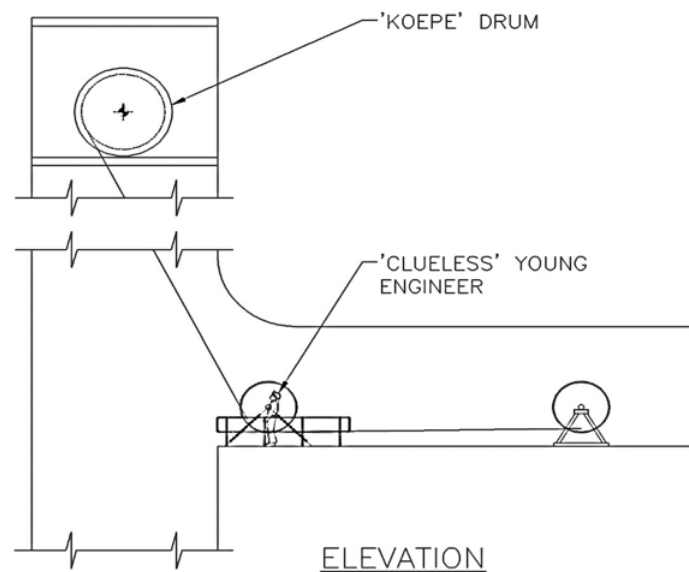
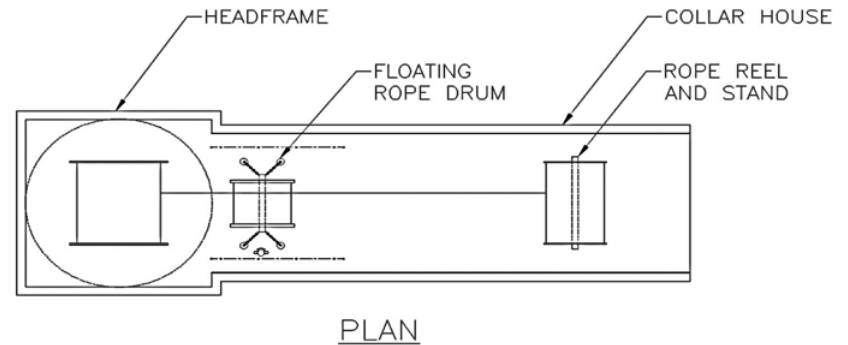
Something to Think About: "Make it simple. Make it memorable. Make it fun to read." Leo Burnett. Sometimes the way you say something sticks. If you have a safety share you remember well because it was unique, funny, impactful, then share it. Pay it forward.



In Harm's Way

We were roping up the friction hoist and had jerry-rigged a floating sheave in the collar out of a timber rope reel with a steel round bar and some chain welded to the round bar and to the deck. The hoist could pull the ropes off the rope reels, around our floating sheave and into the shaft. Slick setup, so we thought. I was standing beside the reel with a radio giving the hoist operator instructions and the rope was going up when two of the chains broke at the weld and pinned me to the headframe wall. I calmly told the hoist operator to stop and back down some rope. I am glad that radio was fully charged.

Lesson's Learned: Properly engineer every setup with stored energy. And don't stand in harm's way in case the design or the procedures are faulty.



Unsupported = Unforgiving

The shaft was going well in terms of safety and advance. We were at a station and had driven a few rounds in. Station brows are always a concern because you never know how it is going to hold up, ground stability, support, blasting, and structure all play a part. The brow on this station looked good and was well supported. We were in a few rounds and our shift boss went down to inspect the night shift blast. He was safety minded and always wanted to inspect the station round first, he did not want his crew under unsupported ground or in a bad situation. So, he went in to inspect the station round, and the back came down on him and he sustained a critical injury.

With all the best intentions to protect his crew, he ended up in harm's way for a few seconds.



Lesson's Learned: Even a few seconds exposure to unsupported ground is a few seconds too many. Unsupported ground can be unforgiving ground.

Unsupported=Unforgiving

Hope is Not a Plan

We had a fatality in the shaft, and I was in the camp kitchen. One of the old timers (younger than I am now but he seemed pretty old to me at the time) said *"We lose one about every 1000 feet."* I took it to be an outlandish statement but by the time that shaft was finished at 5400 feet deep we had three fatalities.

At the face, a culture of acceptance and expectation of injuries and fatalities is a killer, literally. People knowing it was going to happen and just hoping it wouldn't happen to them. By that time many people in our industry had already realized that the wrong culture could lead to tragedy and that had to change. *"Hope is not a plan."*



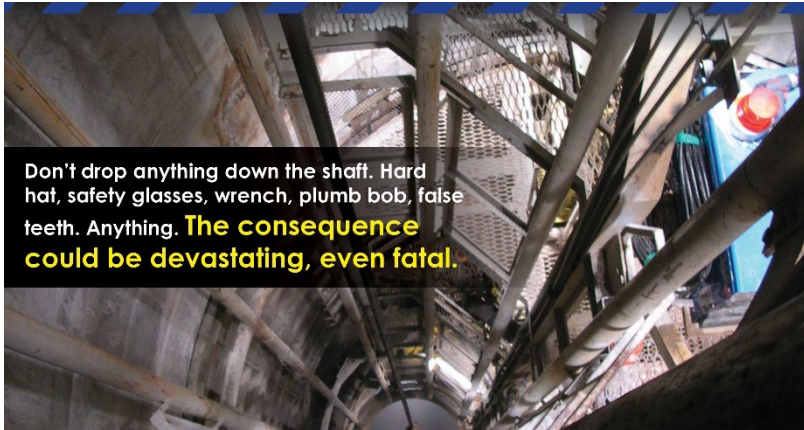
**The culture at the
face is your safety
culture.**

Something to Think About: The culture at the face is your safety culture. Not the speeches you give, or the posters you put up, or what's on your website. If your organization does not believe in, and strive for, zero harm, you are creating a culture of inevitability. Your acceptance that injuries will happen will be a self-fulfilling prophecy. My opinion.

Don't Drop Anything Down the Shaft

We were sinking a timber shaft and I was at shaft collar and the dayshift leader called up to tell me they wouldn't make their blast at end of shift. I dreaded telling the shaft super but had to. He came running out of his office to the shaft collar and started yelling obscenities down the shaft. Of course, the crew couldn't hear him, they were 3,000 feet down drilling. He suddenly stopped and went back to his office. At the end of the shift the leader came up to me and said *"You wouldn't believe what I found on the blasting set."* He showed me an upper plate of false teeth.

Years later I told this story as a safety share and the moral of the story was *"Don't drop anything down the shaft, not even your false teeth."* Imagine my surprise when visiting one of our job sites

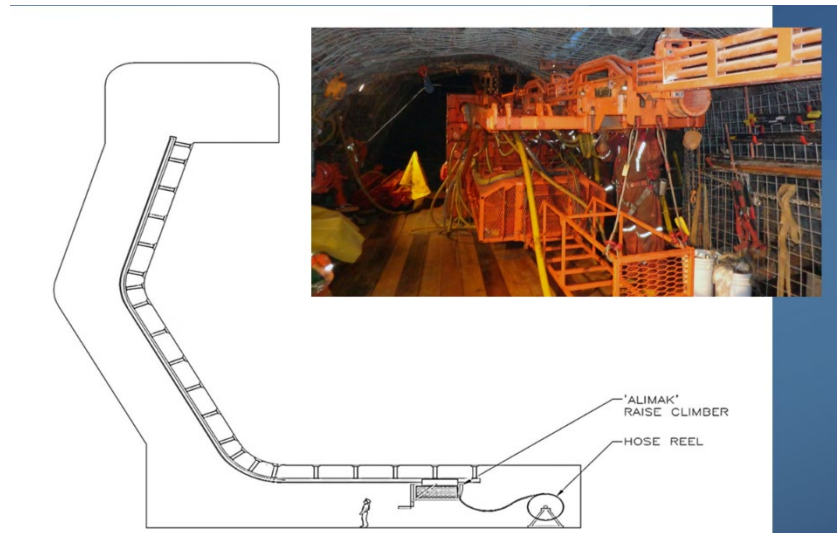


and seeing a poster on the wall telling our people not to drop anything down the shaft, not even false teeth. It was gratifying to think that someone had heard and remembered my story.

Idea: A memorable story with a clear message can make an effective safety share. Share it.

Scraped Knuckles and Broken Fingers

I was travelling up a knuckle back raise in an alimak with a student. For those of you who aren't familiar with how an alimak goes up the knuckle back, that is good, because it's a terrible setup. In a normal alimak setup the climber is designed to travel with the rail on the hanging wall of the raise. Finger raises are usually drop raised or excavated by timber raise techniques. In this setup someone had decided we should try putting the rail on the footwall to drive the finger. Just like a Tijuana tattoo, it seemed like a good idea at the time. With such a significant change in application of the equipment nothing worked the way it should. After driving up past the curve and into the finger raise, I went to climb onto the platform but because the climber is tilted in a different angle the door came back down on my thumb and severed it. I wrapped it up and started back down the raise.

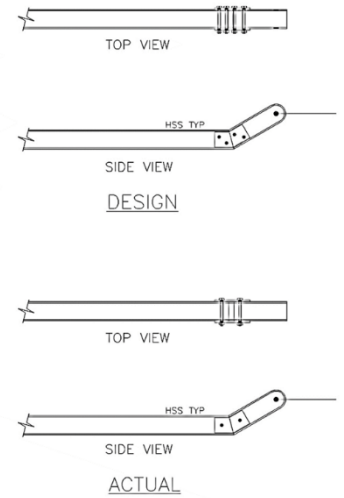
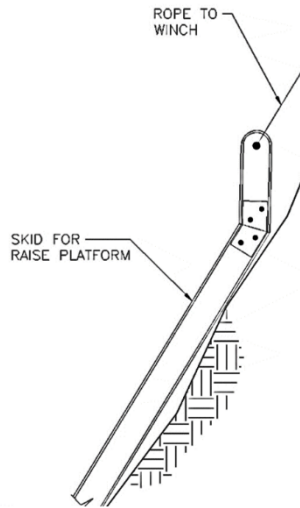


Lessons Learned: Significant changes to a methodology required detailed hazard analysis. Inexperienced operators without proper training should not be in a raise, or anywhere, without a trained operator. These are just a few of the many things wrong with this picture.



As Built?

I was called as an expert witness in an inquest for this tragedy. A stage was designed to be lowered from the top down and ride on the rough footwall to equip a drilled and blasted raise. The original design was a welded connection from the frame to the rope connection. The engineers recognized the danger of a welded connection in tension and designed gusset plates as an added safety precaution. The gusset was not fabricated as designed, the weld broke, and the gusset plate bolts sheared, and the stage went down the raise resulting in a fatality.



Lessons Learned: Critical design components need to be reviewed, engineered and then confirmed in the field. Just because its right on paper doesn't mean it was built that way. That's why we have as-builts. This design did not take into account screen on the footwall and constant hangups that the operators would deal with by just putting tension on the winch rope until the stage came free of the screen. If the design engineer had understood how the stage was being used, or what the final fabricated stage was, there would have been modifications required.



Confirm in the field that equipment was built as designed and is being used for the service it was designed for.

A Safety Share with a Twist

In the early days I was running the company and occasionally helping run projects as well. That is just the way it works with a start-up. On one challenging shut down project I was looking after the backshift after finishing my day job. Each crew member was scheduled to give an accident imaging at the start of each shift, and there were some very good presentations, well thought out and articulated.

One evening a young construction miner gave the following safety imaging.

Situation: Twisting the top off your 5th or 6th beer.

Possible Injury: Cut to index finger.

Prevention: Use a bottle Opener.

As he was giving this presentation, I noticed the index finger on his left hand was in a bandage.

It was during his presentation that it dawned on me that most of these “imagined” incidents that people were presenting probably happened to them at some point and they weren’t imagined at all, they were being recounted. Which begged the question as to how management should react to a presentation of a serious “imagined” incident.

I think he may have been a bit self-conscious that his presentation was not as elaborate as some of the ones that crew members had made in the past. After his presentation I approached him and thanked him for an excellent safety share, which I think surprised him. I let him know that I had a beer every now and then and will be using a bottle opener from now on.

The process also made me think about how we as management encourage a culture of reporting. How do we establish our projects so our crew members can speak openly about an incident without being judged or fear reprisals. Incident imaging is one tool, but I think positive reinforcement when someone is open and sharing is needed to make that tool, or other similar methods, really effective.

By the way, since that safety share, I have always used a bottle opener when opening a bottle.

Something to Think About: Incident imagings are often based on actual events. Imagings of a serious nature may need some follow-up. Positively reinforce safety shares and reporting as soon as possible to foster a culture of reporting.



**Encourage a culture
of reporting.**



Go Fever

The project had been engineered and setup on budget and the first blast was right on schedule. On an early site visit I recognized that some of the safety procedures and maintenance programs weren't in place. I remember on that visit writing some of the missing procedures myself. 4 months into the job we had 4 lost time injuries and had to rebuild the shaft jumbos. This was the impetus for my Go Fever safety share, which I have shared many times over the years.

The term "Go Fever" was coined by NASA after the Apollo 1 fire in 1967. Three astronauts died in a training exercise two weeks before Apollo 1 was scheduled to take off. A short in the electrical circuit sparked in the highly oxygenated air in the module and within seconds the entire module was engulfed in flames. "Go Fever" refers to a desire to push forward and take chances when marginal or substandard conditions exist. It was found to be "rampant" at NASA and was fostered by a macho "go hard or go home" attitude of both the astronauts and management.

The NASA situation certainly has parallels with the mining industry. The attitude and desire to start breaking rock has sometimes in the past taken precedent over the careful planning of all aspects of a project. Obviously, that has to change; however, there is significant pressure by all parties involved to get performance, to get things started. I know of examples of projects starting before being properly prepared, the results being serious injuries and significant delays.

The "Go Fever" situation is often driven or intensified through management (owner and contractor) applying pressure to meet a milestone start date. The right message to send is that the project site work will not commence until we know we can start the project safely. There should be a joint commitment from both parties not to start until preparedness audits are completed. This does not reduce the contractor's responsibilities or commitment regarding the program or schedule, but ultimately determines what is best for the project, which is the prevention of injuries and for the project to start off on the right foot to achieve zero harm, and that will pay dividends down the road.

Lessons Learned: Use Preop checklists to see if everything is in place, to be signed off by all parties. This includes haz-ops, SOPs, staffing levels, engineered drawings, maintenance programs, operating manuals and more. All stakeholders should make the commitment that the work won't start until it is safe to start.



**The work will not
commence until
we know we can
start safely.**



The Superintendent

I was visiting a shaft project and as we started to go down the shaft the superintendent was standing on the rim. That is a dangerous practice which was commonplace in the past, but for many years had been against company rules. I told him to get in the bucket, which was an uncomfortable exchange in front of his crew, and something I would rather have done one on one. When we got to surface, we had a chat. He told me that if I wanted to get the kind of footage I was asking for they were going to have to take a few shortcuts. I talk often about the journey from compliance to commitment, but we weren't even at the compliance stage on that project. He was well liked by the Client and friends with the Client's Project Manager. I went to the Client's head office after my site visit and told them we had to make a change. I also explained that their PM was part of the problem too. At first, they were hesitant but finally agreed. We changed out both and the project got back on track, both safety and productivity wise.

The superintendent sets the safety culture on the job.

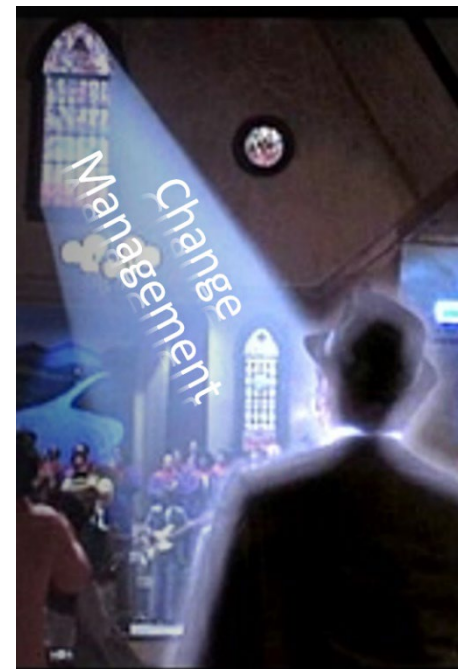
Something to Think About: I remember one of our miners telling me that *"it's the superintendent that sets the safety culture on the job..."* but that doesn't let management off the hook because he completed his thought by saying *"and management are the ones that are letting him."*

Epiphany

I remember many years ago, it was a MASHA magazine that made a statement that the path to zero injuries is all about change management. This was an Epiphany for me. I saw the light! Change your results, change your culture, change the way you do things, think about things, record things, reward things. Change change change.

Idea: If you are a safety professional you should take a course or study the concepts of change management because that is a big part of your job.

**It's All About
Change
Management.**





99 Rounds



I was visiting a jobsite and on the bulletin board in the lineup area there were some pictures of things not done right. One of our miners looked at that board and said to me *“You blast 99 rounds to the nuts, and no one says anything, but you have one bad round and you get your ass kicked.”* Wow. All I could think about was all the opportunities we missed to positively reinforce the behaviours we want to see when we focus on what goes wrong.

Idea: Catch people doing things right. Reinforce those behaviours. Sounds simple and it is. It is also a very powerful motivator and culture builder.



**Catch people
doing things right.**

Respect Experience and Potential

Quite a few years ago we had an employee injured while excavating a shaft station. An experienced miner was operating an Eimco mucker when a large piece of muck came down the undercut muck pile and caught the back of his leg, resulting in a laceration that required quite a few stitches. During the investigation the operator said he had seen the hazard but figured he could get out of the way quickly enough. He blamed the low air pressure for the mucker retreating slower than he had planned. The lack of accountability was concerning. His partner, who had a few years’ experience, also saw the hazard but when he was asked if he pointed it out to his partner responded that his partner had 25 years’ experience so he would know better if it really was a hazard. The moral of the story? If you are new and see something that doesn’t look right bring it up. Maybe your partner didn’t see it, and in discussing it with an experienced partner you will learn. If you are an experienced operator encourage your younger partner (protégé, mentee) to identify hazards and bring up concerns, and definitely don’t respond with sarcasm or negativity. Encourage new people to speak up, it may save your life.





Something to Think About: What do your incident investigations tell you about your safety culture? How comfortable are your people when it comes to speaking up about safety issues? If you are an experienced person this all starts with you. Encourage people. Positive reinforcement when someone, anyone brings up a concern.

What do your incident investigations tell you about your safety culture?

Make it Memorable

I remember sitting in on a safety meeting and the supervisor started out by saying this *“You don’t want your best friend to end up with your wife living off your insurance money, do you?”* I thought to myself, if that doesn’t motivate someone to work safely, I don’t know what will.

Idea: Know what motivates your people and use it to motivate them. Is your safety meeting a snooze fest? Mix things up, get people engaged. Find the most animated, funniest, crankiest, most ornery person and get them to tell a story. Get creative.

I Sold My Chainsaw

It wasn’t an emotional experience. We weren’t that close. In fact, I hadn’t worked with my chainsaw much over the last few years. It was a nice one. Maybe not a model the professionals would get excited over, but it sure looked good to me.

But to be honest I was starting to get nervous about using my chainsaw. I didn’t have the right personal protective equipment and I had no formal training. Of course, I could have taken care of both of those things and certainly would feel more confident in operating it. But the reality was I would rarely use it, and no matter what training I took, without regular use the next time I picked it up it would be like starting over.

I put it on Kijiji. I haggled a bit with a prospective buyer. He said he could get a better deal at Canadian Tire. I agreed with him and said he should go for that. A week later he got back to me and asked if it was still for sale. We met. I always try not to judge by first impressions, but he looked like he knew his way around a chainsaw. I did want it to go to a good home after all. Money and equipment were exchanged. The deal was done.

I sold my chainsaw and in doing so I think I made the world a safer place.

Something to Think About: Training for something you do once a year, or once every few years is probably questionable training at best.



Reaching Total Consciousness

Over the holidays I was walking down a flight of stairs, holding the handrail and thinking to myself “what if I fell?” I was thinking what a problem that would be, how many people counted on me for all kinds of things. Then I started contemplating about the pain and my own possible injuries. Then I said to myself “keep that hand on the handrail”. Then I realized in that scant few seconds I had just done an incident imaging. Then I realized how safety conscious I was. I guess at that point you could say I became conscious of just how safety conscious I was.



I wasn't always this way. In my early career I took risks working from heights and in the shaft. Doing things I wasn't properly trained or qualified to do. But I learned. Sometimes through a painful experience, sometimes a near miss, but lots of times it was from the unfortunate incidents that happened to people I knew.

Over the years I have tried to think about how we can make people instantly safety conscious. I don't think people work that way. Even early in my career I didn't think some of the injuries I had seen could ever happen to me. I wasn't bullet proof but I thought I was tough enough.

These days I constantly think about how we can protect our people, about how I can protect my people. Myself, co-workers, family. That's a lot of thinking.

Something to Think About: How can we instill in people safety consciousness without pain and suffering and expensive education?

Put It on My Account

Father to Son: You lack accountability.

Son to Father: And whose fault is that, Dad.

Something to Think About: Ultimately you are accountable for your own safety. So, if you see something unsafe speak up, discuss it, make suggestions, propose solutions. I would rather have someone with a solution for every problem than a problem for every solution. Refuse to work if you have to. If all else fails, quit. Seriously, Quit. if you are employed by a company that won't listen or won't make an effort to make a workplace safe, and you feel you have valid concerns about your own safety. Leave. Walk out before someone carries you out.