

# U.S. Pipelines & Logistics Contractor toolkit



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2Q 2018

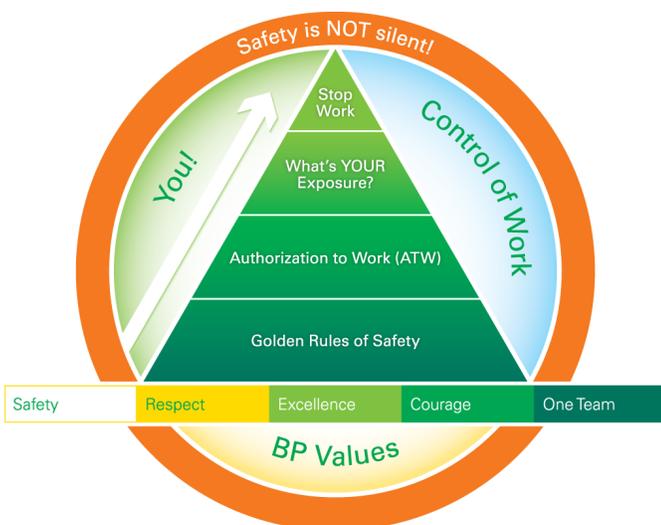
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On April 4, 2018, BP Pipelines marked one year without an OSHA recordable incident. We could not have achieved that without the commitment to safety from you, our valued contractors.

**Thank you for everything you do for us!**

# HSSE spotlight – Industry hazard

## Pipeline rupture occurs during in-line inspection tool run (not a BP incident)

### Hazard

Use of compressed air to propel an In-Line Inspection (ILI) tool through a pipeline resulted in combustion of the tool and subsequent overpressure of the pipe.

### Incident (non-BP)

A pipeline operator was planning on using an ILI tool to acquire baseline information on the condition of a newly constructed pipeline. Although the pipeline was newly constructed and had never contained a flammable liquid or gas, the ILI tool provider advised the pipeline operating company to use an inert fluid such as nitrogen to propel the tool the initial 14.5 kilometers. After pushing the tool 14.5 kilometers with nitrogen, the tool vendor advised it would be acceptable to switch to compressed air.

The pipeline operator began the ILI tool run, but had miscalculated the amount of nitrogen necessary to propel the tool 14.5 kilometers and ran out of nitrogen after moving it only 6 kilometers. The pipeline operators didn't completely understand the risk of switching to compressed air, and therefore they elected to make the switch when the nitrogen ran out.



As the tool travelled down the line, the compressed air mixed with the nitrogen and the atmosphere around the ILI tool acquired sufficient oxygen for combustion to occur. Friction between the ILI tool and pipeline walls had generated sufficient heat to allow the ILI tool to ignite and burn. The damaged tool came to a stop inside the pipeline, and continued to burn. The intense heat from the fire raised the temperature of the steel pipe walls and significantly weakened them to the point where they could no longer withstand the internal pressure from the compressed air supply.

### Recommendations:

- 1) Be aware that very high temperatures can be generated during an ILI tool run in a dry pipeline. The temperature can be high enough to support combustion of the ILI tool in the presence of oxygen.
- 2) Use an inert gas or fluid, such as nitrogen or water, as a propellant when performing ILI tool runs inside a dry pipeline.
- 3) Seek input from the ILI tool vendor experts when writing an ILI procedure, and seek their advice if considering a change to the procedure.
- 4) Follow the MOC process before making a change to the ILI procedure, and include consultation with the ILI vendor before approving the change.



# WYE? – What's your exposure?

**Distracted driving awareness month: April 2018**



## April is National Distracted Driving Awareness Month

Throughout the month of April, law enforcement agencies across the U.S. will be ramping up efforts to increase roadway safety by targeting motorists who utilize hand-held cell phones or other devices while driving.

Distracted driving continues to be a major safety concern in the U.S. According to the National Safety Council, motor vehicle deaths rose dramatically over each of the past two years, with a sharp increase in the number of accidents caused by distracted driving.



### The three types of driver distraction include:

- Eyes off the road (visual)
- Mind off the road (cognitive)
- Hands off the steering wheel (manual)

We all know the risks associated with driving. If not operated safely, a vehicle can be dangerous – even deadly. The training provided by USPL improves your skills while driving and prepares you to react to potential hazards on the road, even those caused by the actions of others and out of your control. Defensive driving teaches us to be ready for potential hazards on the road.

### Follow these driving tips to keep you and others safe on the road:

- **Focus on driving.** Keep 100% of your attention on driving at all times – no multi-tasking. Remember, you are in control.
- **Drive defensively.** Be aware of what other drivers around you are doing, expect the unexpected and be prepared to avoid the unexpected. Apply the knowledge and skills from your training.
- **Plan ahead.** Know your route and anticipate possible risks, including: weather, traffic conditions and road construction.



**Drive smart, drive safe.**

# WYE? – What's your exposure?

## Why ask WYE?

**WYE using your hands?** This is the question that should be asked before and during our work.

In an effort to recognize and reduce exposure, and to ultimately eliminate hand injuries, we want to improve our risk assessment, specifically as it relates to hand safety. We need to recognize our hands as highly developed yet potentially fragile tools which must be honored and protected. Breaking these tools can be life-altering.

We often talk about fit-for-purpose tools. We need to be vigilant and not give in to the temptation of short-cutting safety by using the wrong tool for the job when the proper tool isn't readily available. Hands are high-end tools that must be maintained. Anyone that works with tools and equipment will tell you that the best way to maintain something is through preventative maintenance.

### Preventative hand maintenance!

So let's ask the question again. Why would we use our hands before we use any other tool for the job? Keep asking the next better question. Would I put my head in that bite? Why would I put my hands in that bite?

If it turns out our hands are the best tool for the job, then the next question must be WYE for using my hands?

### Use the WYE 5 tool with respect to Hands:

- Can my hands be **struck** by or strike against something? Will my hand be placed in the line of fire?
- Can my hands come into **contact** with anything?
- Can I get my hands **caught** in, on, under or between anything?
- Could I **overexert** my hands?
- Can I **fall** and injure my hands?

If the answer to any of these questions is yes, then what controls am I putting in place to protect my hands? When we approach jobs, let's have the better tool box talk. Let's ask the better question.

Let's consider performing a **WYE for using your hands**, not just at the start of the day but throughout the day, every time we return from break, every time we change tool strategies, every time we remove our gloves, every time we are redirected, or any other relevant time

Our hands are some of the most precious tools in our kit, and the decision to use them should never be taken lightly.



### Here are some ways to reduce hand hazards in your job:

- Hand placement – Place your hands away from the line of fire.
- When using a hammer to drive a stake or nail – Hold and tap gently to secure the stake or nail; remove your hand and then tap with more force.
- Place a barrier between your hands and your work.
- Ensure all safety guards on equipment are fully functioning.
- Secure objects to be cut with a saw, rather than holding them with your hands.
- Use the right gloves for the job.
- Use a tool instead of your hands – For example, push/pull tool, ironworkers' tool holder, handle saver hammer, etc.

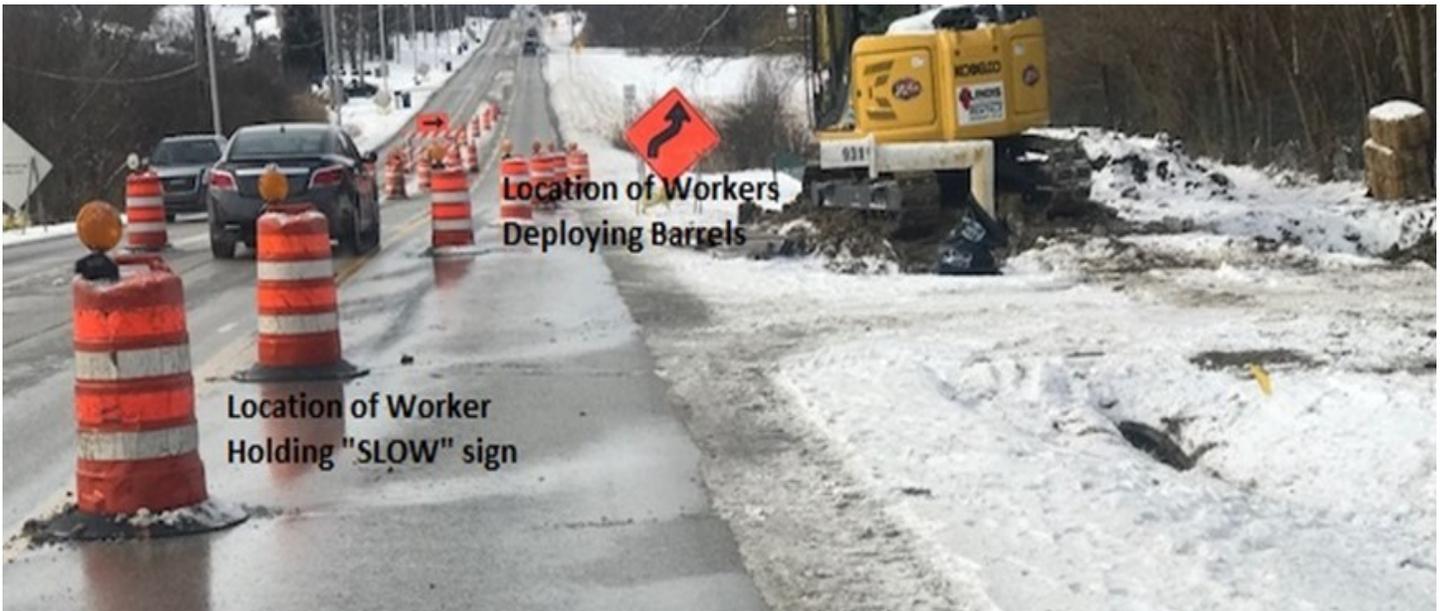


**WYE?**

WHAT'S YOUR EXPOSURE?

# HSSE safety share

## USPL investigations



### Traffic flagger sign struck by passing truck

While a work crew deployed traffic diversion barrels to close a lane of traffic, one of the crew members used a traffic warning "Slow" sign to alert oncoming traffic to slow down. The worker that held the "Slow" sign was positioned behind traffic barrels near the edge of traffic.

As a utility delivery truck approached, the driver made eye contact with the worker holding the "Slow" sign. At that point, the driver of the truck began to increase his speed. The worker holding the "Slow" sign stepped further away from the edge of the traffic lane, but the truck's right side mirror struck the "Slow" sign. The truck continued to drive away and did not stop. The worker was not injured.

Work as a Traffic Flagger presents a potential hazard to workers involved. Worker awareness and precautions are important under such conditions. Body position relative to traffic exposure must be always considered and the practice of "leaving yourself an escape route" should be applied wherever possible. USPL will continue to assess workers performing flagger activities to ensure they are appropriately trained to state requirements.

### Snowplow gate post hit

As a snowplow operator was clearing snow at a facility gate area, the left front corner of the snowplow blade dug into frozen ground, which caused the vehicle to shift sideways approximately one foot, and strike the entrance gate post. The snowplow truck operator indicated that the vehicle was operated at a speed less than five miles per hour. The snowplow operator indicated that the snowplow blade did not have skid shoes on the bottom of the blade.

Operation of snowplow equipment around fixed objects requires constant attention. The USPL location will investigate the option of adding skid shoes to the snowplow blade.



# HSSE safety share

## Careful where you walk!

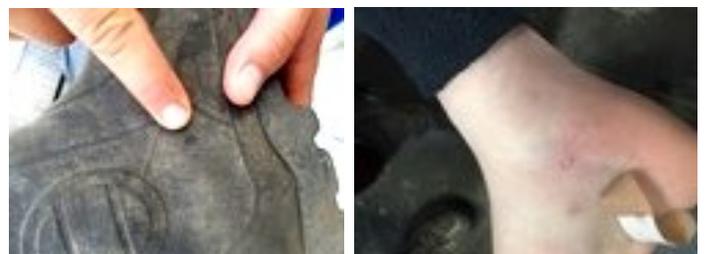
In 2017, two incidents occurred in which **honey locust tree thorns** pierced the instep area of safety boots and grazed workers' feet while they were recoating pipe spans.

Honey locust trees are prevalent in a number of regions, including most of North America, and are considered an invasive species. These incidents both occurred in the Missouri area on the BP1 line. With both incidents, the thorns lay unseen in matted down brush, in an area that had no visible honey locust trees. It is thought that heavy rains carried the thorns downstream – in the drainage ravines spanned by the pipes – to the sites where workers were performing span re-coat activities.

The investigation included research into puncture-resistant safety boots; however, puncture resistance was found to be designed only into the soles of the boots, which would not have afforded sufficient instep protection in these instances.

Heightened awareness of the thorns and robust, timely clearing of ingress/egress routes to the worksite were identified as measures to help uncover any thorns prior to work start-up. Annual Right of Way clearing planning meetings will include discussion of the thorn hazard and the mitigation that robust clearing of the areas to be worked can provide. The Authorization To Work (ATW) form, to be updated this year, will include a specific item for thorns (under biological risks in Section B) to better alert workers to the hazard and allow for discussion, if applicable.

**Note:** In 1Q of this year, another locust tree thorn incident occurred. A BP technician was placing the last locate flag along a fence line where leaves had accumulated. As he placed the flag, he felt a very sharp puncture to his hand. While assessing the situation, he cleared the leaves and found a large thorn branch. No treatment was required for the minor injury.



**Top:** Honey locust tree thorn; **Bottom-left:** Punctured instep of boot; **Bottom-right:** Thorn puncture on side of foot.

**Discussion:** How might you be able to protect yourself from contact with thorns?

# Good Catch/Near Miss highlights

## What makes a great good catch/near miss?

- ▶ **See something** – observe a potentially unsafe condition
- ▶ **Say something** – report the near miss to the appropriate parties
- ▶ **Do something** – apply corrective action or follow-up

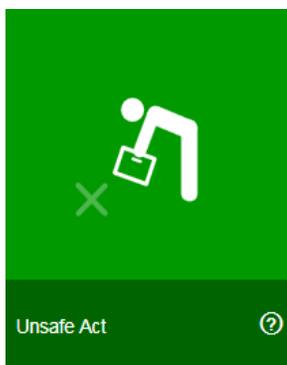


Making an intervention to prevent an unsafe act.

## Proper safety procedures

**Good catch:** An electrical crew was tasked with installing conduit at heights, utilizing a scissor lift. The work was discussed and planned, including the hazards of working at heights. Fall protection was properly worn and a lift spotter was used. All recognized hazards were mitigated prior to work beginning.

**Discussion:** What hazard would you discuss prior to working at heights? Why is Working at Heights a Golden Rule? Can you describe a working at heights situation done poorly?

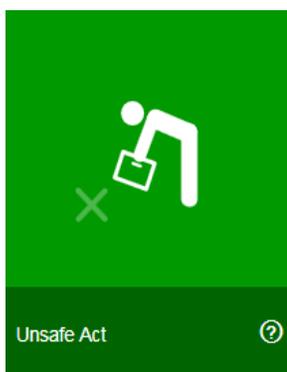


An observed behavior that differs from the expected safe way of working.

## PPE not worn

**Good catch:** A worker was in the process of moving floor plates. The employee was not wearing gloves as required by the work permit. The worker was stopped when it was safe to interrupt and a "What's Your Exposure?" conversation was held. The employee recognized they were not wearing gloves and put them on prior to resuming work.

**Discussion:** There were seven reported injuries to hands in USPL during 2017. How often do you discuss potential hand hazards prior to starting work? What additional mitigation methods can you put in place other than use of gloves to protect hands?



An observed behavior that differs from the expected safe way of working.

## Wrong material for task

**Good catch:** Workers were pulling new de-energized electrical cables with the wrong cable-pulling rigging configuration. The work was stopped to discuss the set up and an explanation of why different rigging should be used. The proper rigging was then installed and the work resumed.

**Discussion:** Do you address situations when materials or tools are not being used correctly? Who has 'Stop the Job' authority?

Have a **Good Catch** or **What Good Looks Like** event you want to share?  
Report either to the appropriate BP site contact.

# Contractor Management

## Revised! Inland Boat and Vessel Safety policy

Effectively immediately, the BP Pipeline's Boat and Vessel Safety policy has been revised. All requirements for offshore vessels have been removed and the policy has been renamed **Inland Boat and Vessel Safety** to more clearly indicate its applicability. Typical boat and vessels activities include: deploying containment booms, inspecting pipelines at river crossings, conducting maintenance on pumps in firewater ponds and repairing dock equipment.

The updated policy, along with all others for working on a BP Pipelines job site, can be found in either the ISNetworld Bulletin Board or on the Contractor Management website (see the link at the bottom of this page).

## Contractor grading statistics

As of April 12, 2018, USPL had 231 connected contractors in ISNetworld:

- 53** – 'A'
- 114** – 'B'
- 22** – 'C' (6 on variance)
- 42** – 'D' (5 on variance)

## Key BP contacts

- ▶ **Karen Jacobson**  
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## Contractor information website

The USPL contractor information website contains important information to assist you in working safely with USPL, including HSSE policies, forms, toolkits, BP-specific programs, links to industry websites and OQ training information. Access the website at:

[http://www.bp.com/en\\_us/bp-us/what-we-do/bp-pipelines/contractor-information.html](http://www.bp.com/en_us/bp-us/what-we-do/bp-pipelines/contractor-information.html)