



COMMUNICATING WITH THE PUBLIC

Curve public perception by properly highlighting the benefits of your project

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Altering optics regarding negative public sentiment of oil and gas in the U.S. will likely be a challenge emerging from the COVID-19 pandemic. The predominant workforce demographic is shifting to an age segment far removed from the memory of the two global wars that led to the build out of the natural gas pipeline system in the U.S. This is especially the case since the public has been inundated with the message that global warming is the direct result of greedy oil and gas executives.

Changing optics on major pipeline projects can be a challenge. While transparent messaging regarding the major pipeline projects are detailed on websites, it is important to increase foot traffic to the sites during town halls to relay those messages to the public. Consistently directing the public to a project's website and augmenting the website throughout the project with construction success stories should be evaluated, weighted against litigation issues, and strategically planned and implemented throughout the project lifecycle. Websites that include project scope, economic benefits and industry emergency standards can be augmented to include the best parts of a new pipeline.

A Notable Example

The Enbridge Line 6B project is an example of a success story where Patriot Pipeline Safety staff actively teamed with corporate Public Relations (PR) at the town halls. The project initially included protests and violent demonstrations. Protestors were present at townhalls, but their argument was quickly disproven in front of community public audiences. By pairing field staff industry knowledge with PR professionals at public meetings, technically accurate information can be provided to landowners in real time. As landowners express constructability concerns, specifics about the coating, backfilling and pigging can be provided for them and the public record.

The oil and gas industry invests millions in engineering and material research to continuously improve environment and safety, yet the industry hesitates to communicate this information to the public. Consider elaborating on these technical issues wherever possible in the public forum as they are the key areas that make new pipelines safer than ever. It's an environmental benefit to coat with FBE, pad pipelines and run pigs. All these steps tremendously support the environment and safety, however they tend to not be highlighted in public pipeline discussions. These new technologies are the key reasons why the public is safer with a greenfield line, and engineering construction practices are worthy of more than a one liner on a PowerPoint. Explaining to the public the benefits of new construction with technical competency has proven to be the secret sauce on projects.

Specific Areas of PR Improvement

Discuss the latest materials under environmental benefits. There is benefit in detailing topics such as coating strength and inspection, CP contingencies and pigging technologies. These topics provide solid reassurance to the public regarding safety.

1. If rock hole best practices are detailed for Horizontal Directional Drills (HDDs), share this on the website or with town hall audiences as yet another way the client is going above and beyond to maintain hole integrity.
2. Include public safety under “Know the Facts.” New pipelines tremendously increase public safety. This can also be explained during town halls.
3. If you have a designated Environmental Inspector (EI), partner with them to better understand their working environment and impacted communities. With strong communication, the EI who is working in the community daily will be able to obtain data about the local public perception of the project—hopefully prior to a disgruntled individual reaching out to a news media outlet.

Communication with multi-generation farmers can provide insight about the land being drilled that may not be captured in an isolated core sample. Communication with local well drillers in the area will provide insight as to freeze and thaw cycles in the region, as well as anticipated tooling. Locals will often share details of changes in their community or where groups of “outsiders” are developing. On prior projects, Patriot Pipeline Safety has learned more from a café regarding protestor locations, camps and environmental considerations than any media outlet or app.



Hole Cave in-No Casing. This is the result of a collapsed borehole following the first ream pass. The install of casing can be discussed during the planning stages to minimize the potential of this occurring.



Here crews work to isolate a HDD IR that occurred in Ohio. This clean up included multiple barriers, equipment, and restoration efforts to return the area to its original condition. IRs are a risk of HDDs however can be tremendously mitigated and prevented with the correct proactive actions that meet a specific drill profiles needs.

4. While legal and intellectual property issues must be evaluated, share the materials used for HDDs even if only limited to bentonite. Bentonite has inert properties in water systems; it usually either seals or flows away, thus not blocking wells and underground water flow.

Improving PR for Bentonite

HDDs frequently use fluid bentonite clay as a “drilling mud” during cutting and reaming to stabilize the bore hole and remove soil cuttings. Bentonite commonly forms from volcanic ash with the presence of water, and much of the U.S. supply chain comes from Wyoming. It can be commonly found in animal oils, clarifying wines and vinegar. It can act as ground water barriers for ponds, provide a low-cost adsorbent for chromium ions in waste water, come in pill form to help clean built up toxins in one’s body and as we know, serve as drilling mud. Depending on the drilling location, a balanced PH level is necessary to only utilize water and bentonite.

Many drillers in the industry have indicated that drills can be successfully completed with just bentonite. By first evaluating the pH level of the water, the addition of soda ash may be optional and those drills could be executed solely with bentonite and water. Since bentonite is a naturally occurring substance, the potential exists of rebranding this technique as organic, offsetting negative connotations prevalent regarding oil and gas and this drilling technique.

While the complexity of the HDD has evolved over time, it is important to remember the basics. Modern HDD discussion will include debate about drill size benefits and disadvantages and how additives reduce IRs. However, despite the technical changes, drilling remains as much an instinct and art as it is a science. Bentonite was used when the industry began using HDDs. HDD technology evolved away from the use of diesel fuel and transmission fluid as clay breakers and friction reducers resulting from regulation by the EPA and OSHA. Since tracking has improved along with HDD tooling, it is worth revisiting if bentonite is all that is needed to complete the HDD.

Improving the HDD

HDDs are frequently used during pipeline construction. Potential areas of concern and areas of improvement for HDDs include:

1. Flow rate slows down and your reclaimer tanks are low.
This is a good sign you are losing mud. This could be caused from mud being too thick to come up or going elsewhere.
2. Inexperienced mud man.
3. Continuing to push when the torque increases.
4. Generally, the client can tell a contractor what additives not to use.
5. Core samples are not always accurate.
6. Most geological terrains can be drilled solely with bentonite, which can be washed out and washed away. Bentonite will seldom interfere with aqueduct flow for long periods of time as it interferes minimally and temporarily with the water table.
7. The addition of additive is often influenced by the contractors. Additives can bring your viscosity up and cut down on amount of bentonite required. Mud engineers are often affiliated with a distributor and are incentivized to suggest an additive that may not be necessary.
8. If you can monitor your radius, suggest putting the profile as deep as you can go. The cost of losing a hole or IR far outweighs the cost of a little more pipe and time.
9. Regarding rock formations, if rock is present, turn your bit down to penetrate and not bounce off.
10. All rigs should sit in a professional containment. Only use makeshift as a last resort.
11. Consider requiring a centrifuge in your bid packets. This helps keep your mud weight down and your sand content down. Although there are additional costs, keeping the weight down supports returns which reduces the possibility of building pressure in your hole. Centrifuge systems spin these particles out.



Monitoring and understanding the color of your returns can help you identify what you are drilling through. Different rocks, clays, and deposits have different colors. Ex. Dark gray to black can indicate you are going through a layer of coal.

12. Consider augmenting the contract to include an annular pressure tool on your pilot ream. Newer steering tools (probes) have this. This allows you to monitor your holes pressure which aids in proactive trouble shooting.

Avoiding Environmental Impacts of IR

HDDs are used during pipeline construction to avoid environmental impacts to wetlands and streams as are required by environmental regulations. However, IRs during the HDD do little to improve public opinion or environmental impacts. Providing guidance and expectations for the HDD may prove helpful in avoiding an IR. Consider the following tips:

1. Mobilize drilling rigs to sit in full containment.
2. Consider the benefits of a centrifuge and discuss PRE BID.
3. Consider an annular pressure tool.
4. Consider requiring a mud engineer PRE BID.
5. Make hourly (or similar) IR patrols a requirement.
6. Have a frac tank inspection process.
7. Consider adopting rock hole reamer diameter jump. Max 12”.
8. Have a cone inspection process that includes bearing and weld inspection. Not doing so could cost millions if a cone is lost downhole and not retrieved.
9. In the emergency response plans, make sure the contractor has what they need to address the terrain in that particular drill profile during pre-bid. (Ex. Boats, dams, sand bags, vac equipment, pumps, long sticks, sxs’s, waterlogs, matting, etc.) This should be a specific plan to meet the areas and profiles needs, not generalized. Each profile is different in accessibility and concern.
10. Validate HDD inspector references and technical field experience. This is important as the contractor may encounter a situation that is not reported. It is important for an inspector to be familiar with the work in the event this takes place.
11. Discuss in detail if casing pipe is to be used by the contractor.
12. Discuss having a back up pump in the event a pump goes down and circulation is lost. If not onsite, it is important to detail the duration to get one onsite.

Conclusion

Oil and gas is an industry being doubly impacted by negative economics in 2020. It is important that the industry emerges stronger in communicating the benefits of new natural gas pipelines to the public. Optimizing internet and social media communication while simultaneously empowering local knowledge to be voiced to corporate via field staff allows bi-directional conveyance of both the technological advances enhancing pipeline safety and nuisances within the impacted communities that can impact project execution.

Decreasing HDD IR is important for the industry overall to decrease opportunities for anti-oil and gas sentiment. Education of non-field staff on HDD opportunities for improvement may enhance self-regulation by the pipeline industry, culminating in decreased IRs. Internal controls such as full containment of drilling rigs and decreased use of unnecessary mud additives decreases the likelihood of spills and negative media. 🚫



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Brion Pohl has over 30 years in the HDD industry with a career of successfully completed HDD's across the United States. Brion has served as Superintendent over multiple large HDD profiles involved in some of the most high profile pipeline projects to date. Brion continues to serve the pipeline industry as a consultant where his input and experience regarding HDDs has been extremely influential in the successful completion of complex profiles. His ability to coach and teach a younger generation pipeliner and driller has significantly supported a younger generation of workers to carry on the industry into tomorrow.



Pam Randle, EHS-Project Permitting Specialist, has 20+ years' experience of environmental and regulatory compliance. With master's degrees in both biology and finance, Pam is committed to fiscally efficient regulatory compliance for energy companies. Pam supports the next generation of young scientists and engineers as an advocate for STEM education.