

Fuel Program Risks

5 Categories of Fuel Risk You Must Manage

Fleet operators make many important decisions to protect their company against unforeseen consequences. Managing the day-to-day aspects of a fuel program is challenging enough; hiding beneath the surface is an array of potential risks just waiting to wreak havoc.



Fuel risks are items that don't happen daily but could have potentially large consequences. These high-impact, low-probability events are easy to overlook given their infrequency. With enough time, however, low-probability events rise to become a near-certainty.



Financial



Environmental



Supply & Operations



Personnel



Security

When fuel risks do rear their head, the impacts can be devastating. At best, they create short-term hardships that distract you from more important priorities. At worst, they can have huge implications for your company's financial performance with no means for reparation. Given the possible consequences, and the accumulated probability of problematic outcomes, it's important to take every opportunity to mitigate fuel risks.

When discussing fuel risk, many might jump to fuel prices and credit checks. Both are important factors to manage yet make up only a fraction of overall fueling risks. When evaluating fuel program risks, there are five primary categories that must be considered to effectively reduce the risk of critical business impacts.



1. Financial Risk

Perhaps the most well-known form of fuel risk within the logistics industry is financial risk. Fuel expenses are often among the top three largest operational expenses, so heavy scrutiny is applied to expenditures. For financial risks, two particularly important considerations are Price Risk and Credit Risk.

Price Risk

Fuel is a volatile commodity, with large price swings higher and lower. In just one day, prices could move up or down by ten cents, which can have major implications for net profits.

Managing Price Risk. Fuel consumers mitigate fuel price risk in three primary ways:

1. **Pass on Costs.** Many customers pass on fuel costs to customers, either as a direct budget item (construction) or through fuel surcharges and higher prices (waste, transportation, etc.). It's important to assess these pass-through options frequently to monitor protection; often prices rise faster than costs can be passed on to customers.
2. **Lock in Fixed Prices.** If prices cannot easily be passed on to customers, many companies choose to fix their fuel price for a year to guarantee their budget. They may choose to lock in a portion or all their projected gallons. A fixed price ensures that adverse price movements don't impact the bottom line. Certain tools allow buyers to benefit from lower prices when the market falls.
3. **Maintain Large Inventories.** Companies with relatively low usage and available space for storage can choose to purchase significant quantities of fuel when prices are favorable to protect against higher prices. This is a popular approach for power generation, where fuel tanks can exceed 100,000 gallons.

Credit Risk

Credit risk is also an important consideration for fuel buyers. A full truckload delivery at current prices could cost \$15,000-\$20,000, and you may be spending that every few days depending on your consumption rates.

From the time the delivery is made until the invoice is paid, your supplier is carrying that expense and is likely paying interest on the balance. Although it's rare, counterparties (banks, suppliers, carriers, etc.) can go out of business, disrupting your supply.

Managing Credit Risk. Make sure your supplier has a strong reputation and robust balance sheet to demonstrate they are not at risk. A sudden financial mishap could cause supply chain disruption, impacting your operations. Choosing a sound partner and keeping up with your accounts payable are two ways to ensure fuel keeps flowing as needed.



2. Environmental Risk

When evaluating significant risks, environmental considerations are of utmost importance. Environmental problems – leaks, spills, and contamination – can easily go unnoticed for months, until suddenly appearing with disastrous consequences. A spill, whether caused by an errant fuel delivery or a fuel tank leak, can require huge clean-up and remediation costs.

Spills

A spill occurs under a range of different circumstances. The most common circumstances dealt with at Mansfield involve a tank overflowing, but tanks can leak for other reasons as well. A leak could be any situation in which fuel falls outside the tank.

In general, a gasoline leak is more environmentally problematic than a diesel spill, though both can have severe consequences. Gasoline can burn asphalt, while diesel fuel will only stain it, requiring some cleaning after the fact. If any fuel reaches soil, it must be scooped out of the ground, and the contaminated soil must be disposed of. If fuel infects groundwater, it becomes a government environmental issue.

Each state has its own environmental regulations regarding spills, though most have similar standards. Generally, most states require that spills be reported within 24 hours, though some states have stricter standards, including some requiring spills be reported within 3 hours of the incident. Most states do not require a report for spills under 25 gallons, though California and Massachusetts require a report be filed for every spill. Federal regulations rarely come into play during a spill, unless the spill occurs on Indigenous tribal land, federal parks, or in federal water.

Managing Spill Risks. The best way to prevent a spill is by not overfilling a fuel tank. Your fuel delivery representative should check inventory levels before dropping the load of fuel. If you use an automatic tank gauge to track fuel levels, ensure all electrical components are working and reporting correctly. If a spill does occur, alert your fuel supplier immediately. Most fuel trucks have equipment onboard to contain and remediate spills, limiting the environmental impacts.

Tank Leakage

A more insidious environmental challenge is tank leakage, resulting from cracks in the fuel tank itself. Leaks can discharge a large quantity of fuel directly into the ground, leading to a hefty clean-up bill. While above-ground tanks are easy to monitor for leaks, underground storage tanks (USTs) can pose more of a challenge. For that reason, the Environmental Protection Agency (EPA) puts hefty regulations on USTs, including obligatory registrations for the half a million USTs used for fuel in the US.

Managing Leak Risks. The best way to prevent a leak is to maintain your equipment. Underground fuel tanks have a lifespan of roughly 30 years. The older the tank, the higher the likelihood of disrepair. Follow all EPA requirements to ensure your fuel equipment maintains optimal performance. Work with your fuel supplier to stay apprised of any changes in fuel equipment requirements. Fuel suppliers such as Mansfield can handle your entire environmental compliance reporting requirements, relieving you of the reporting burden.



3. Supply & Operations Risk

While other risks can pose financial hardships, none will put you on high alert as quickly as an operational failure. Your company creates value when engines are running. Anything preventing your assets from moving or generating power is compromising your company's purpose. There are two primary fuel program risks for operations – lack of fuel and poor-quality fuel.

Supply Outages

Almost every part of the country is subject to some form of natural disaster. Hurricanes, tornadoes, earthquakes, snow storms – when a disaster strikes, fuel supplies can be difficult to deliver. Technical failures can have industry-wide implications. Adverse conditions can impact road conditions, or they may directly impact fuel infrastructure through terminal power outages, refinery shutdowns, or pipeline issues.

Fuel supply disruptions are often compounded by panic buying that occurs locally. While supply is constrained, demand can rise to double or triple standard levels as consumers order fuel they don't need, just to make sure they have it. Because the fuel is not needed, it causes a retain, placing further burdens on already tight freight capacity.

Managing Supply Risks. Having a supplier with a broad geographic footprint is critical to prevent disruptions to your business. When selecting a fuel vendor, ensure they have a documented plan to overcome local outages. Suppliers ought to maintain a portfolio of supply options, inventory, and delivery partners to ensure local disruptions do not impact customers.

For example, during the 2017 Southeast fuel outages caused by Hurricanes Harvey and Irma, Mansfield brought in fuel deliveries from as far north as Ohio and Pennsylvania to ensure customers had fuel. These long-distance relationships are critical to maintaining secure supply.

It's also important to ensure your fuel contract covers emergency situations. Many customers choose to buy from a daily spot quote, without a contract. While this has its benefits, spot purchasing can be problematic during local emergencies. Having an emergency supply contract ensures you are protected during natural disasters and other shock events.

Fuel Quality

Do you know what's in your tank? According to a [2016 EPA study](#), 83% of fuel tanks have moderate to severe corrosion, yet only a quarter of tank owners were aware of the problem.

Fuel quality issues can have severe engine impacts. Microbial growth can occur with even small amounts of water in your fuel, infecting your engine and causing injection failure and more. Poor fuel quality affects your engine's power and efficiency, consuming more fuel while delivering less results. Often, fleet operators are not tracking fuel efficiency or testing their fuel, so they don't know about the significant improvements that can be made at a relatively low cost.

Winter weather presents another fuel quality concern. Unless properly treated, diesel fuel can gel at low temperatures, shutting down equipment and clogging fuel filters. At times, having poor quality or gelled fuel is worse than having no fuel at all.

Managing Fuel Quality Risks. The first step to protecting yourself from fuel quality challenges is testing your fuel. You can't treat what you can't see. A fuel test will reveal winter operability properties, microbial growth, water content and more. Based on the results, work with your fuel supplier to remediate your tank and fuel quality challenges. We all must go to the doctor for a check-up now and then; treating your fuel is no different.

If a fuel test reveals severe problems, you may need to polish your fuel or even clean your entire fuel tank. Various remediations are available depending on the extent of the damage. Don't remain in the 83% with tank corrosion – check your tank today.

4. Personnel Risk



The sad reality of most work environments is that no matter how strong your team, eventually folks will leave to take other positions within or outside the company. Turnover presents an often-overlooked type of risk to your fuel program's institutional knowledge.

Key employees often have specialized insights into processes and operations:

- What equipment are you using?
- How is the equipment maintained?
- What equipment issues are recurring, and which are new?
- How much fuel does the site consume, and when does it vary?
- Is any equipment still under warranty?

These key employees are your first line of defense in preventing other hidden fuel risks. They understand how to operate tanks to avoid environmental risk, and they've been ordering fuel long enough to know they'll need extra deliveries during the holidays.

As these key employees move on to other opportunities, how does your company maintain smooth operations flows? Sometimes employees leave suddenly for medical or financial reasons. Do you have any single points of failure that need to be addressed?

Managing Personnel Risk. Your fuel supplier can work with you to manage knowledge retention. While people may cycle through your fuel program, having the right processes in place ensures your fueling operations never skip a beat. Having a dedicated relationship manager at your supplier can help bridge the gap during transitions by training the newcomer on standard operating procedures.

Whenever possible, use systems rather than people to store knowledge. For example, Mansfield's FuelNet portal stores tank inventory data, transaction history, repair and maintenance records, tank model data, and more to ensure you never lose critical data.



5. Security Risk

Security challenges are the most malicious forms of fuel risk, caused by ill-intentioned actors seeking to harm your business. The two most common forms of security risks today are cyber security and fuel theft.

Cybersecurity

Numerous cyberattacks have been launched targeting fleet operators in recent years. Most modern fleets operate on digital platforms for their dispatch and planning. Cyberattacks can target systems by deleting files outright or restricting access until a ransom is paid. Alternatively, hackers can simply steal data, using it later to access restricted information.

Managing Cybersecurity Risk. Hackers are constantly becoming more sophisticated, so no amount of planning can guarantee protection. Although cybersecurity generally is not within the mandate of most fuel managers, there are some important, common-sense steps that can be taken to ensure you are not the entry point for a hacker.

1. **Comply with all corporate security protocols.** Do not try to circumvent the network when researching solutions; a reputable fuel supplier should not trigger system warnings.
2. **Do not click on suspicious emails from suppliers.** Often, hackers will spoof a customer or supplier's email domain to obtain information. If you receive an email requesting unexpected payment or requiring a password, contact your supplier to confirm its legitimacy.
3. **Vet your suppliers' cybersecurity policy.** Companies are often most vulnerable through their counterparties. Make sure your supplier has a policy in place to protect your data on their network.

Fuel Theft

Occasionally when reconciling fuel inventories with transaction data, discrepancies will arise. While often these are mere mathematical errors or technical monitor glitches, in some instances the discrepancy is the result of intentional fuel theft. Mansfield has encountered many cases over the years where bad actors gain access to a site's fuel tank and siphon fuel into personal tanks or vehicles.

Managing Theft Risk. Preventing fuel theft can take a few different forms. The most important is to watch the data for signs of fuel theft. Fuel inventory levels should be checked regularly and reconciled against deliveries and dispensing data.

If your tanks do not currently use dispensing controls such as a fleet card or PIN-based controls, consider putting such measures in place. Controls enable you to see which drivers, if any, were fueling erroneously, allowing you to address the error directly with the appropriate parties.

Finally, if the data consistently shows fuel loss and your dispensing unit shows no fraudulent activity, consider installing a camera with coverage of the fuel dispenser and the tank opening to identify whether someone is siphoning fuel from the system.

Putting security measures in place to prevent fuel shrink will promote accountability among your team while keeping honest drivers honest.

Conclusion

It's impossible for a fuel manager or fleet administrator to manage every form of fuel program risk. As the world continues growing more complex, new risks arise that must be considered. Moreover, your team faces many other priorities – keeping costs low, maintaining reliable supply, and keeping engines running. Understanding risk is an important step but implementing adequate risk mitigation protocols across your entire fleet is a daunting task.

Where possible, work with your fuel supplier to outsource this risk management. The best fuel suppliers have long histories solving problems for a diverse customer base, spanning numerous industries and geographic profiles. This experience prepares them to manage the vast array of risks that face your company's fuel program while keeping them apprised of evolving threats.

No matter how prepared you are, it's also important to maintain flexibility. Even the best risk management policies can't predict new, unfaced risks. At some point, your business will face unexpected problems that impact your business's financial or operational stability. When new problems arise, have a plan for working with your supplier to innovate on the solution.

Although fuel program risks can never be eliminated, adequate preparation and close collaboration with your fuel supplier can contain the issue and protect your business.



Manage Your Risk

Protecting your company from hidden fuel program risks should not be a distraction from daily responsibilities. Let Mansfield assist you in managing your fuel risk.

For over 60 years, Mansfield has solved problems and reduced risk for thousands of customers across the US and Canada. Call a Mansfield fuel program expert for a detailed assessment of your fuel program including ways to reduce cost, manage risk, and streamline operations.

Contact Mansfield Today!

800.695.6626

info@mansfieldoil.com

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