Common risks your **tire business** could face...

...and how to protect yourself against them.





The risky side of running a tire business

No matter the type of tire operation you run, there are risks involved. Whether you own a business that removes the wheel from a vehicle to perform repairs, works on the tire, rim, or wheel, performs maintenance or repairs on your own vehicles or fleet, warehouses or distributes tires, sells tires, or stores them – you need to be aware of these risks, and actively work to mitigate them.

While the number of tire dealer claims has decreased over the recent years, namely due to less travelling and driving because of COVID, the average cost has increased by 53 per cent according to Federated internal claims data.* Vehicle collisions such as those involving pedestrians, left hand turns, and rear-end ones are the leading type of loss for tire dealers and account for 34 per cent of all losses. Other main types of losses include fire (16 per cent), theft (18 per cent), and weather-related damage, such as wind and hail (8 per cent). The average tire dealer's property loss is \$82,000, while liability loss is \$14,000 and auto loss is \$16,000.

This document will outline the risks that could affect various types of businesses, including tire dealers, auto dealers, vehicle repair shops, tire warehouses, and tire retreaders. Each of these businesses share similarities in how they handle and arrange tire inventory. It's important to ensure your business is prepared for the property, liability, and crime risks that may be on the horizon. It's also important to annually review your risk management program to identify gaps. Losses can influence a company's bottom line, and by controlling risks you may be able to improve profitability.

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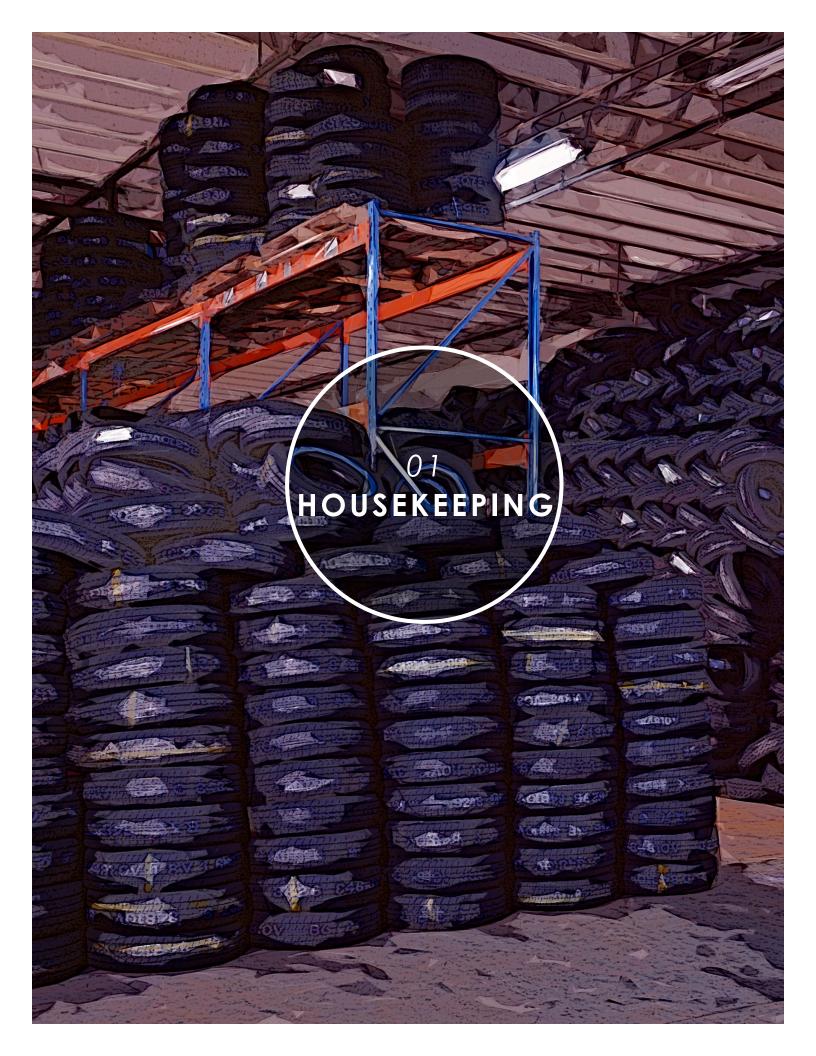
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It may sound tedious, but basic housekeeping practices can save your business from a potential disaster. So, taking the time to perform some essential checks and clean-up practices can be more than worth it in the long run.

General housekeeping

Housekeeping helps reduce the likelihood of hazards and has numerous benefits. Good housekeeping practices can make your business more appealing to customers and help you retain customers, but it can also help control fires (inside and outside of the building), aid in the maintenance and upkeep of the building, and help limit slips, trips, and falls for both employees and customers.

There are many slip, trip, and fall hazards that can cause injury to employees and

customers, including uneven surfaces, holes, changes in surface heights, substances on the floor (ranging from liquids to mud or ice), frayed or curled carpets/runners, weeds, or garbage. To reduce some of these risks, your business' lot should be well maintained, and weeds and garbage should be cleaned up on a regular basis. Oils and greases on the floor are a common risk. To help reduce or control this issue, all spills should be attended to promptly using some type of absorbent. Signage should be put up to warn about the spill and the fluids should be properly disposed of.

To further ensure nobody suffers an injury, tire warehouses and other tire businesses need to control their inventory during peak seasons and make sure that their aisles are kept clear. This also helps control the spread of fire, should one break out.

It's important that rubber dust is kept in a contained storage area and that your building is cleaned regularly.



Tire dust / particle inspection

Tire dust and particles are created when buffing the casing of a tire to prepare it for retreading. Some dust and particles will accumulate in the work area, but the majority will be extracted by a cyclone system – a machine that removes particles from an air, gas, or liquid stream without the use of filters, through vortex separation – and stored outside the building.

Tire dust and particles can be dangerous, as fires and explosions are more likely if there's a large amount of dust in the air or on the ground. Therefore, it's important that rubber dust is kept in a contained storage area and that your building is cleaned regularly, as well as areas around any cyclone or storage units outside. Interior cleaning of the work stations should be performed daily, while exterior checks around the dust collectors and vacuum units should occur weekly. Your specific equipment should also outline a recommended cleaning and maintenance schedule. Newer and larger cyclone systems should have a sprinkler system and fire and explosion safety mechanism built into them because it's important that the fire and/or explosion does not blow back into the building. That's why these safety features should be inspected as often as the manufacturer suggests.

Waste and scrap containers

Waste containers: Waste containers for garbage, recyclables, and used oil should be kept at the outside rear of the building. Containers should be placed away from the exterior wall of the building. If this isn't possible, regular pickups should be scheduled. This is important because if the containers were to be set on fire and they were located close to the building or inventory, the resulting damage could be extensive. Containers should be locked and secured, and a security system with cameras should also be installed, if possible. A fence with gates can offer another degree of protection, and a professional grade padlock should be used. These steps, along with regular pickups, are important to deter any possible acts of arson or vandalism.

Waste or scrap tires: If not handled properly, waste or scrap tires can be stolen and used by someone else, potentially causing damage or injury. A third party could also add their own waste or scrap tires to your collection, which means the cost of having the extra tires removed falls on you. Finally, too many tires on the lot can be a fire hazard. To mitigate these risks, waste or scrap tires should be stored in a specific area or trailer that is 50 feet (15 m) away from your business' building. The location of these tires should be secured with either a fence or security system, and tires should also be picked up and recycled on a regular basis. The frequency of tire recycling will depend on the size/volume of the business.

Outside storage

Pallets, tires, and combustibles should be stored away from the building. The National Fire Code requires a minimum distance of 50 feet (15 m) away from the building.





Just like many businesses, companies that deal with tires need to be wary of some of the common hazards that can arise when using electrical systems, lighting, water, and heating systems. Commercial property insurance may help pay for damages resulting from these risks, which makes it an important tool to keep in your toolkit. This type of coverage is designed to protect your building and its contents (think equipment, furniture, and third-party property that's in your possession). Federated also offers business interruption insurance, so that if a covered event like vandalism sidelines your operations, you can collect the income you would have expected to generate were it not for the disruptive event.

So, what kind of issues can arise out of property risks? And what steps can you take to mitigate them?

Extension cords should only be used as temporary wiring, not as permanent wiring.

Electrical

If your business' electrical system is not being maintained properly, an electrical fire could break out. This could lead to damage to your building, as well as to your inventory. To ensure this doesn't happen, there are some steps you can take.

- Extension cords should only be used as temporary wiring, not as permanent wiring.
- All electrical outlets, switches, junction boxes, etc. should have covers protecting the wiring. Electrical panels should also have their doors attached and kept closed to protect the wiring and circuits.
- Regular inspections and maintenance should be performed by employees and maintenance personnel to check for any signs of electrical issues. For example, if your building has uneven power flow, hot switches, brittle wiring, or blown breakers, it could indicate electrical issues.
- You should also consider having the electrical system reviewed by an electrician, or a professional who can perform thermal imaging on the system to search for hot spots.
- Thermal imaging can help detect issues throughout the entire electrical system. This is highly recommended for a number of buildings, including buildings that have been repurposed, buildings in which humidity in the past or present has been an issue, and buildings where the electrical system has been patched or added to. Thermal imaging is also a good maintenance and preventative procedure to do on a regular basis depending on the age and condition of the building, this could be done yearly or up to every five years.
- Any issues that are found should be fixed immediately.



Electrical shorts

- If any equipment is experiencing electrical issues or shorts, the equipment or batteries should be disconnected. This would include any vehicles, customer vehicles, equipment, and batteries.
- A common cause of electrical shorts is not disconnecting batteries overnight.

Electric charging stations

- Lift trucks are used by many tire businesses, and some use electric charging stations. To combat the possibility of a fire breaking out, these charging stations should be separated from busy traffic areas and any combustibles.
- Charging stations also need to undergo regular maintenance and should be inspected annually.
 There may be a need for more inspections if there's an incident or sign of trouble. Examples include a collision with the station, issues with the breakers, high temperatures in parts of the system, or the station's inability to charge equipment properly in the appropriate amount of time. If something like this occurs, the charging station should be inspected right away.

Lighting

If lighting systems are not properly maintained, they can sometimes lead to fires. For example, if older lights are being used without proper metal cages enclosing them, they could explode. If this happens, the large pieces of glass that fall to the ground would be very hot, which could start a fire if they land on a combustible item.

In order to reduce the chances of something like this from happening, you should replace bulbs that are a concern, upgrade your electrical system, and install metal cages to either catch broken glass or break it up into smaller pieces which will cool before hitting combustible items, making them less likely to start a fire.

Water damage

While tire water damage would most likely be minimal over a short duration, water could be detrimental to any rims and accessories being stored in the building, as well as any pallet jacks and lift trucks (especially if they are electrical). Water could also cause extensive damage to the building itself.

Depending on the building's proximity to water sources (including rivers, lakes, and oceans), and the likelihood of heavy rainfall (which could lead to surface flooding), varying levels of preparedness and planning are required. Preparations could range from reviewing the flood risk of the building in question to reviewing drainage and landscaping, or even elevating the building you plan on using. Proper maintenance must be performed on the roof, eaves, and downspouts to ensure water is not finding its way into the building.

It's important to ensure any susceptible inventory and equipment is protected by stacking products on shelves or pallets. It's also a good idea to keep electrical equipment like battery rechargers elevated and unplugged. In warehouses, recharging stations for the pallet trucks should be protected and unplugged. It's also vital to put a plan in place to remove water from the building as quickly as possible following a flood. This plan could include the availability of pumps or wet/dry vacuums, or an existing agreement with a contractor that states they'll come in as soon as possible to clean up and ensure there are no structural or electrical issues. There are also flood reduction products on the market, such as solid systems and inflatable flood prevention systems, that can help you better manage your risk.

HVAC / heating systems

Heating, ventilation, and air conditioning systems (HVAC) can also lead to fires if not properly maintained. Proper maintenance is essential, as it can catch any issues with the gas lines, electrical lines, pilot lights, and overall condition of the system. It's also important to ensure that combustible items (like tires) are stored a safe distance away from HVAC systems, so they don't ignite. The National Fire Protection Association (NFPA) requires that overhead space heaters and radiant heaters be a minimum of 3 feet (0.9 m) from the top of a tire pile.

Also, due to the high amount of combustible dust generated when buffing tires, in retreading shops, open flame suspended heaters should not be installed over the buffing area. This will help prevent fires caused by rubber particles accidentally drifting to the heating appliance.

Air compressors

Air compressors are pressurized vessels that all shops need. However, they can also present a hazard. For instance, electrical contacts within the air compressor motor or pressure switch can spark, which increases the risk of a fire or explosion. That's why jurisdictional inspections must be done. In some provinces, like Ontario and Quebec, the tank needs to be inspected annually if it's greater than 24 inches (0.6 m). As a rule of thumb, the frequency of the periodic jurisdictional inspections is driven by the pressure vessel characteristics with respect to the size, temperature, power, pressure, and heating surface.

IN WAREHOUSES, RECHARGING STATIONS FOR THE PALLET TRUCKS SHOULD BE PROTECTED AND UNPLUGGED.



Curing (autoclaves)

Autoclaves, which are used by tire retreaders, are pressure vessels that use heat and pressure to permanently bond the new tread/tire to the old casing. Since the equipment uses heat and pressure, it can lead to fires, electrical shorts, and tire ruptures. To minimize risk, this vessel should be inspected regularly and tested annually. In some provinces, like Ontario and Quebec, there are jurisdiction requirements for this equipment to be inspected and certified annually.

Storage of flammables/combustibles

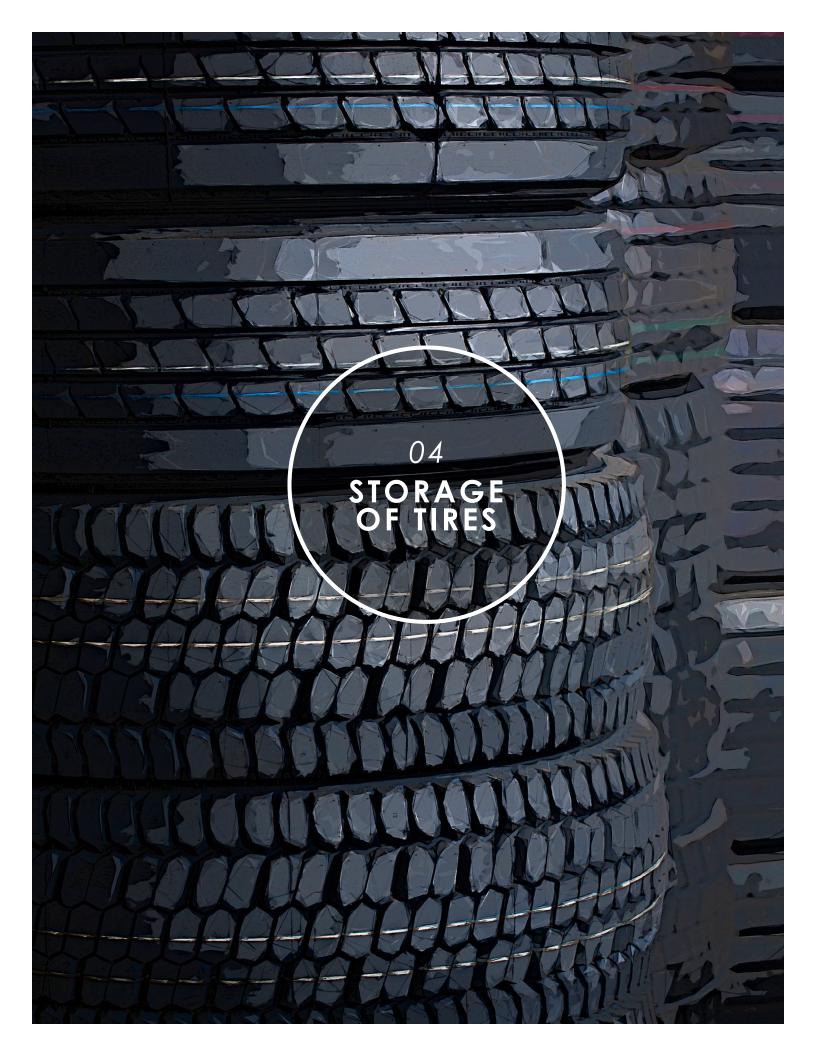
Adhesives, rubber compounds, aerosols, and more are used to clean, prep, and adhere the tread/rubber to the casing. These liquids need to be handled with care, as they can facilitate the spread of fire. In order to reduce the chances of a fire spreading, quantities of these liquids should be controlled, and spills should be dealt with immediately. The liquids should also be stored inside a flammable liquid's cabinet or a room away from any hot work or high-traffic areas. Only small amounts should be kept at work stations.

Oily rags, cloths, paper towels, and coveralls are fire hazards, so they must also be contained. These items need to be separated from areas in which employees perform hot work (like welding, grinding, and cutting). Metal trash cans with lids can be used, but metal oil rag containers with airtight, self-closing lids are preferred. Items that are cleaned and reused, like rags, towels, and clothing, should be kept away from operations and hot work and be picked up on a regular basis to limit the amount on the premises, which will help limit damage in case a fire should break out.

Propane tanks or fueling stations

Other forms of fuel for lift trucks are propane tanks or fueling stations. Impact protection should be provided where liquids or gases are kept. While there's a small chance these tanks or stations could catch fire, the bigger concern is that they could feed an existing fire if a tank were to explode. Because of this, extra tanks should be stored outside in a propane cage and all tanks should be inspected regularly. Portable cylinders must be inspected and requalified every 10 years, and old or damaged tanks should be replaced immediately. Transport Canada outlines which companies are qualified to requalify and certify tanks.

Items that are cleaned and reused, like rags, towels, and clothing, should be kept away from operations and hot work.



It may not seem like it, but the methods you use to store tires play a vital role in ensuring your business is mitigating risks. If the storage space isn't set up correctly, or if your sprinkler system isn't adequate for the type of storage configuration in place, your business could suffer major damages should a tire fire occur. Improper tire storage could also lead to injuries.

There are two main ways tires can be stored: solid pile or racking.

Solid pile

Solid piling is the vertical stacking of tires directly on the floor or on a pallet on the floor. The height of the pile will vary depending on the storage method (ontread, on-side, laced) and the type of sprinkler protection in place.

Racking

Tires can also be stored on fixed or portable racks. In order to ensure the rack remains in good condition, it's important to have impact protection for fixed racks, especially at their ends. This will prevent lift trucks from running into the rack and damaging it. The height of stored tires on racks also needs to be monitored: there needs to be at least 36 inches (0.9 m) from the top of stored tires to sprinkler head deflectors or heat sources on the ceiling, in compliance with NFPA 13.

Some businesses install chains or signs to hang above the racks to show the maximum storage height, so there's an easy visual guide to help judge the correct distance.

Stacking

When storing tires either in racking or in a solid pile, there are three ways to stack them.

Each type of stacking presents different types of fire hazards; when setting up or reviewing a sprinkler system for your property, this should be considered. Tires can be stacked horizontally, vertically, or they can be laced.

Horizontal: Tires are on their treads, side by side. This type of stacking is often used with racks, when there is limited storage directly on the floor, or when tires are stored in the lot. If there's a fire, horizontal stacking may restrict water from getting to the fire, as the water hits the tread and goes around the tire.

Vertical: Tires are on their sides and stacked vertically. Vertical stacking is usually used in solid piling or in seacans. If a fire was to break out, vertical stacking acts like a chimney, which means that water can flow down to the base of the fire. But it can be a challenge to get the water over the right spot, and paired with the extreme heat, this could cause the fire to grow very quickly.

Laced: Tires are woven together so they take up less space, but it's not easy to access a single tire. This method is often used for transportation of tires, for storing waste or scrap tires/recycled tires, and in new tire storage warehouses. This method is also sometimes used in open portable racking. More tires can be stored in a single open portable rack by lacing the tires than stacking them. The downside is that if there's a fire, laced tires are so tightly packed together that it can be difficult to get water to the source of the fire.

Additional consideration should be given to the laced tire storage method with respect to sprinkler protection requirements. Tires stored using this method require an enhanced sprinkler system design, to ensure adequate fire control, according to NFPA 13.

Separation spacing

When storing tires, they need to be separated and spaced appropriately, according to NFPA 13. For solid piling, aisles are required to be at least 3.28 feet (1 m) wide. If the storage room area exceeds 1,076 square feet (100 m²) and the storage height is 19.69 feet (6 m) or less, there must be one main aisle with a minimum width of 7.87 feet (2.4 m). For storage heights greater than 19.69 feet (6 m), the aisle must be 11.81 feet (3.6 m) wide.

Pallets

Pallets are flat wooden or plastic structures that make the storage and transportation of products easier and more efficient. They can be used when tires are racked or stored in a solid pile. They can also be a source of fuel for a fire.

Pallets are made of light wood, heavier wood, or plastic, and the open space between both the top and bottom section, as well as the slats, means they burn easily. Utilizing pallets can change the requirements for sprinkler systems, depending on where they're used, how they're used, and how many there are. Plastic pallets can also increase the requirements for the sprinkler system.

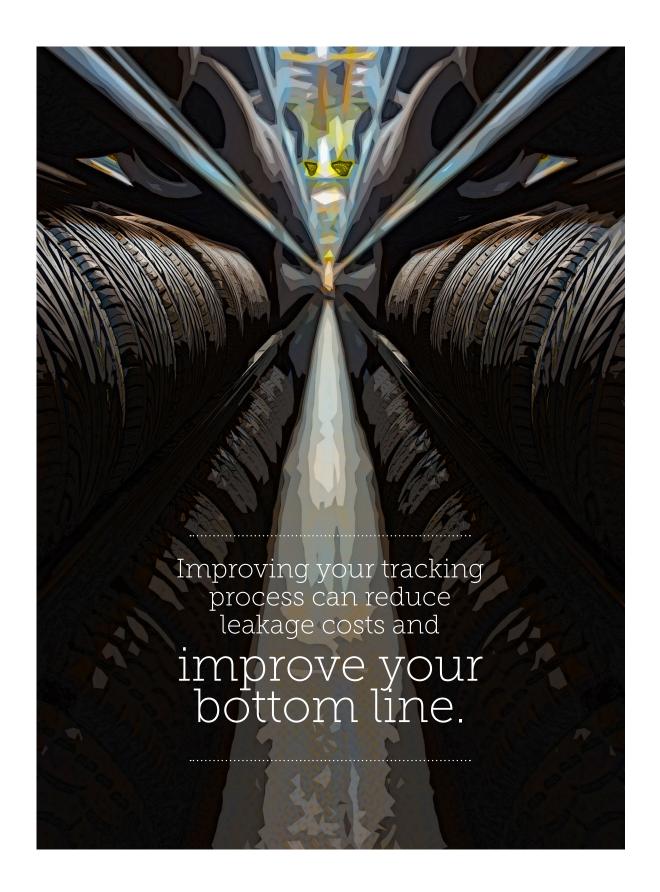
Storing empty pallets can present a risk, since they burn so easily. Because of this, pallets should be stored outside. **Outside storage:** Pallets should not be placed up against the building, but rather at a safe distance of 50 feet (15 m) from the building and any other property. They should also be stored no higher than 10 feet (3 m), covering a maximum surface area of 10,764 square feet (1,000 m²) for an individual storage area.

Inside storage: If pallets must be stored inside, as few as possible should be kept. In a building lacking a sprinkler system, they should reach no higher than 4 feet (1.2 m) within an area not exceeding 1,076 square feet (100 m²). In a building with a sprinkler system in place, NFPA 13 provides clear guidance on the design criteria to appropriately protect combustible pallets based on their height, type, and storage area. All storage should maintain proper aisles between pallet stacks and be located away from other inventory. Pallets should also be stored away from any heat or fire sources. Ideally, a minimum number of empty pallets should be kept at the location and regular removal should be arranged when the maximum storage limit is reached.

Inventory control

Inventory should be tracked, as a loss of products can be costly to your business. Improving your tracking process can reduce leakage costs and improve your bottom line. Using radio frequency identification (RFID) can improve inventory tracking and control, helping to inform you of the quantity and location of your inventory. There are a variety of external companies that offer RFID services.







Since tires and rims are a necessary cost while owning and operating a vehicle, they can be very desirable targets for thieves. But just like there's a range of tires and rims, the level of interest in stealing them differs as well.

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Steel rims: These are common and relatively inexpensive, so they're not generally a high-target item, but they could draw a crime of opportunity.

Aluminum rims: These can be more expensive than steel rims but are also not usually a high-target item. Generally, the price ranges from \$100 to \$1000. Thieves may target these rims, as they can easily be sold to junk yards, recyclers, and other buyers for quick cash.

High-priced rims: These are normally a high-target item and therefore require stronger security measures. The price of high-priced rims can range greatly, from \$400 into the thousands of dollars.

Passenger tires: These are common and relatively inexpensive, so they're not usually high-target items, unless a large amount of them are being stolen.

High performance/specialty passenger tires: These tires are both expensive and unique, so they are generally high-target items.

Farm/off-road tires: Despite being expensive, these tires are hard to move and conceal, so they are generally not highly targeted items.

Commercial truck tires: In order to operate a truck or tractor you need between 6 to 18 of these tires in good condition. Because of this, and their price, these tires are normally a high target item.

Theft prevention

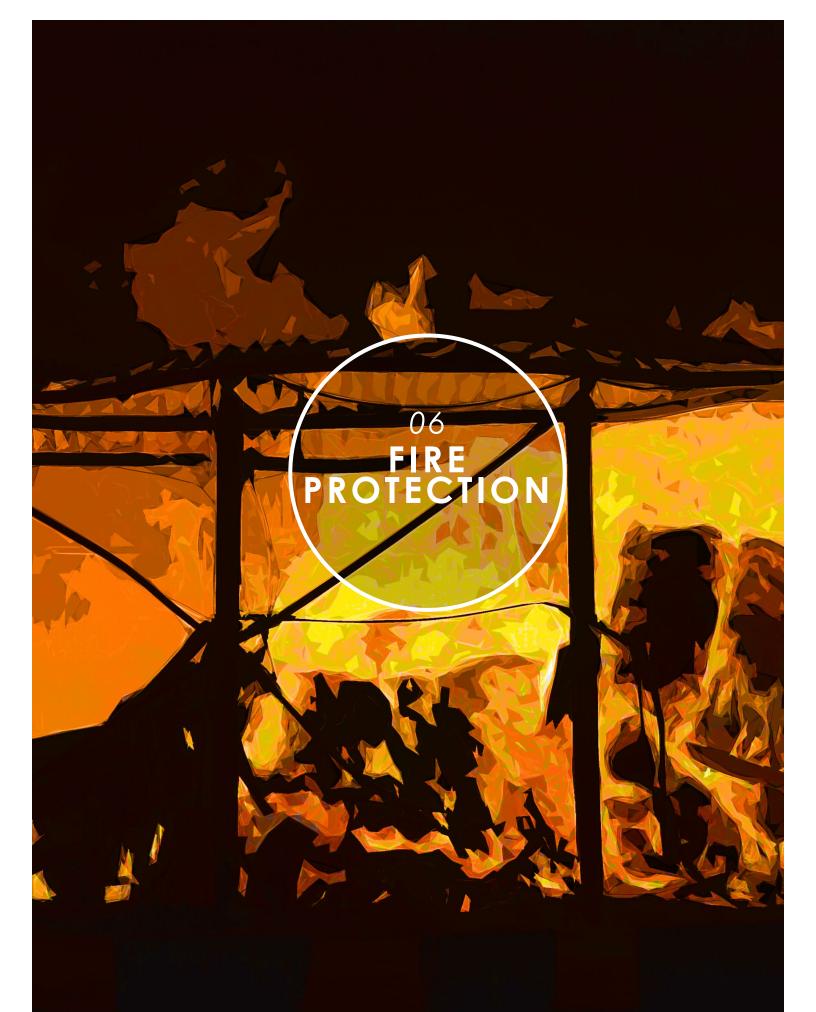
You may require varying levels of protection to keep your property and inventory safe, depending on factors like: the location of your business, the type of building you have, the quality of your building, the type of compound you have (fenced or open), the quantity of tires you have, and the types of tires you have. But there are some common preventative measures that can be taken, such as:

- The primary building should have a ULC (Underwriters Laboratory of Canada) monitored alarm system that includes the applicable pieces, such as door contacts, motion sensors, and glass breakage sensors. Where possible, the tire storage building should be alarmed with a ULC-listed monitored burglary alarm.
- In order to prevent the disabling of the alarm system, if the telephone line is cut or tampered, it is highly recommended to install a cellular phone line security backup system.
- Seacans should have a professionalgrade padlock for their doors and be connected to the building's alarm system, if possible.
- When buildings or containers are not alarmed, video monitoring can be used.
- The gates should be secured with 70

- grade chain and a professional-grade padlock.
- Trailers should have a king pin lock in place, and a professional-grade padlock on the door, as well as be connected to the building's alarm system.
- Saleable passenger vehicle tires and commercial truck tires should not be stored in an open lot. Recyclable or retreadable tires, along with farm and off-road tires, can be stored outside.
- The lot should be fully fenced with manproof wiring at the top.
- Depending on the location, video cameras should be installed inside and outside the building. Some systems have motion sensors, infrared systems, or can see in low lighting, depending on your needs. Live video monitoring can also be used.
- Shipments of tires received should not be left in the delivery trailer overnight.

To further protect your business, Federated Insurance offers coverage options that can help cover costs associated with theft involving employees and others, as well as employee dishonesty and credit card forgery. Our policies are designed to ensure that, should you be a victim of criminal activity, you won't have to pay the price for it.

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If a fire does break out in a facility that deals with tires, the damage can be very extensive. But there are several requirements set out by the National Fire Code of Canada (NFC) and the National Fire Protection Association (NFPA) designed to ensure your business is working to mitigate that risk.

Your business must meet NFPA 13 (Standard for the Installation of Sprinkler Systems), 14 (Standard for the Installation of Standpipe and Hose Systems) and 25 (Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems). NFPA 13 and 14 provide information on the types of systems needed to protect the building based on the type of building construction, the size of the building, the height of the building, occupancy, items being stored,

and the height of storage. NFPA 25 defines what the building owner must do to the fire protection systems on a daily, weekly, monthly, and annual basis.

To prevent fires, all gauges, control valves, and alarm devices on water-based fire protection systems must be inspected on a quarterly basis. The system must also be inspected and tested annually, according to NFPA 25. It's also important to have portable fire extinguishers readily available. NFPA 10 (Standard for Portable Fire Extinguishers) provides guidelines for the number and location of fire extinguishers, but generally they're located at each end of the aisle, in the middle of the aisle if it's long enough, and at all exit points of the building.

Fire walls

If a tire storage area is designed to contain more than 13,243 cubic feet (375 m³) of rubber tires, it must be separated from the remainder of the building with a fire separation wall. It must have a fire-resistance rating of no less than 2 h, in compliance with Article 3.3.6.5 of Division B of the National Building Code of Canada 2020. Different wall types have different fire ratings, which determine how long it would take for a fire to compromise the wall's integrity.

Wall Thickness	4"	6"	8"	10"	12"
Clay Brick	1 hr		5 hrs	5 hrs	10 hrs
Reinforced Concrete	1 hr	3 hrs	5 hrs		
Hollow Tile		.75 hrs	2 hrs		3.5 hrs
Concrete Blocks		1.5 hrs	2 hrs	3.5 hrs	8 hrs

To better prepare their businesses, some owners, operating large tire storage facilities, will have the fire department come to their lot so they can familiarize themselves with the setup. This also provides an opportunity for the owner to find out how much space the fire department would need if they had to put out a fire.

Sprinklers

It may seem like common sense, but it's important to note that sprinklers are vital tools to help manage the risk of fire. Each business' sprinkler system should be designed for its individual needs, taking into consideration the size of the building, construction of the building, occupancy, how the inventory is stored (racks, solid, or open shelving), and how the tires are stored (vertical, horizontal, or laced). If changes are made to the layout of the building, design of the racking, height of storage, etc., the design of the sprinkler system should be reviewed by a professional to ensure the system is still adequate for the storage space.

NFPA 13 provides ceiling sprinkler information for tire storage businesses to choose the right system depending on how their tires are stacked, where they're stacked, how high they're stacked, and the height of the building.

As per the National Fire Code, a proper sprinkler system is required for tire storage if any of the following conditions are present:

- **a.** The total tire storage area in the building exceeds 500 m² (5,360 square feet),
- b. An individual storage area in a single fire compartment exceeds 250 m² (2,690 square feet),
- c. The storage height exceeds 3.6 m (14 feet), and the total volume of tire storage exceeds 375 m³ (13,250 cubic feet).

There are also tire storage clearance requirements, which outline how far the roof, sprinkler deflectors, and heaters must be from the top of the tire pile. There must be 36 inches (0.9 m) between the tires and sprinkler deflectors, 39 inches (1 m) between tires and roof structures, and 36 inches (0.9 m) between tires and heaters, duct furnaces, or flues.

Depending on the racking, shelving, and products in the warehouse, in-rack sprinklers are sometimes required to help control the risk of fire. Since they're within the storage area, these sprinkler heads must be protected by a metal cage, so they're not easily hit or knocked off. There are a number of other requirements and guidelines for in-rack sprinklers outlined within NFPA 13.

Sprinkler systems also need to undergo annual inspections, and any deficiencies need to be corrected in compliance with NFPA 25 (Inspection, Testing and Maintenance). The systems should also be monitored by an off-site alarm company. Ideally, the system would include monitors for water flow, system pressure, and a main valve that will trigger an alarm if it's tampered with or if there's a change in pressure.





Society is increasingly reliant on technology, and businesses that deal with tires are no different. But while technology can help with the everyday tasks of running a company, it also opens businesses up to a new set of risks. That's why cyber security is so important.

Point of sale (POS)

When a customer purchases something from a business, their personal information is often shared with that business. This type of interaction, the point of sale, presents businesses with two responsibilities: protecting customer information that's stored on your system and ensuring your system is protected so it can continue to operate.

The customer information that's shared could range from names to addresses to credit card information to links to a

customer's website. Hackers can use this information to gain access to a customer's identity or email, which could ultimately impact them financially. Because of this, access must be controlled through measures like firewalls, passwords, and the separation of systems. It's also important to ensure your operating system is secure and up to date, as hackers often look to gain access to a computer system and will then lock up the system and demand a ransom or maliciously destroy information.

Information and software should be backed up and kept off-site, and backups should be performed regularly enough that records are always up to date. The information should be kept off-site and protected from tampering not only to protect against hackers, but also to minimize the chance of it being destroyed in an incident like a fire. Backing up information is especially important at the head-office level, but each business will need to decide if backups are needed at the store level as well.

There are numerous companies and individuals that provide cyber protection services to ensure your information is protected. Expert advice is essential, as technology is continually changing, and hackers come up with new ways to access systems every day. As a guide to keeping your systems secure you should ask your security partner for help meeting the CIS Critical Security Standards Version 8 (CISv8).

Server rooms

Wherever there are server rooms, whether they're at the head office, at back-up locations, or at individual stores, security measures must be in place. Doors need to be locked, access needs to be limited to trusted personnel, and security systems need to be installed. Depending on the size of the servers and the size of the rooms, the equipment could overheat, which may cause damage. At a minimum, these rooms need to be air conditioned; in some cases, dehumidifiers should be used to protect the equipment. Beyond the physical protections, the systems should have a number of security controls applied such as disk encryption, Endpoint Anti-Malware and Monitoring, audit logging, etc. All of these can be found in security standards such as the CISv8.

Wi-Fi guest networks

Many businesses now offer customers access to their Wi-Fi. While this is a great move from a customer service perspective, it can open you up to some additional risks. Fortunately, there are some steps you can take to mitigate those risks.

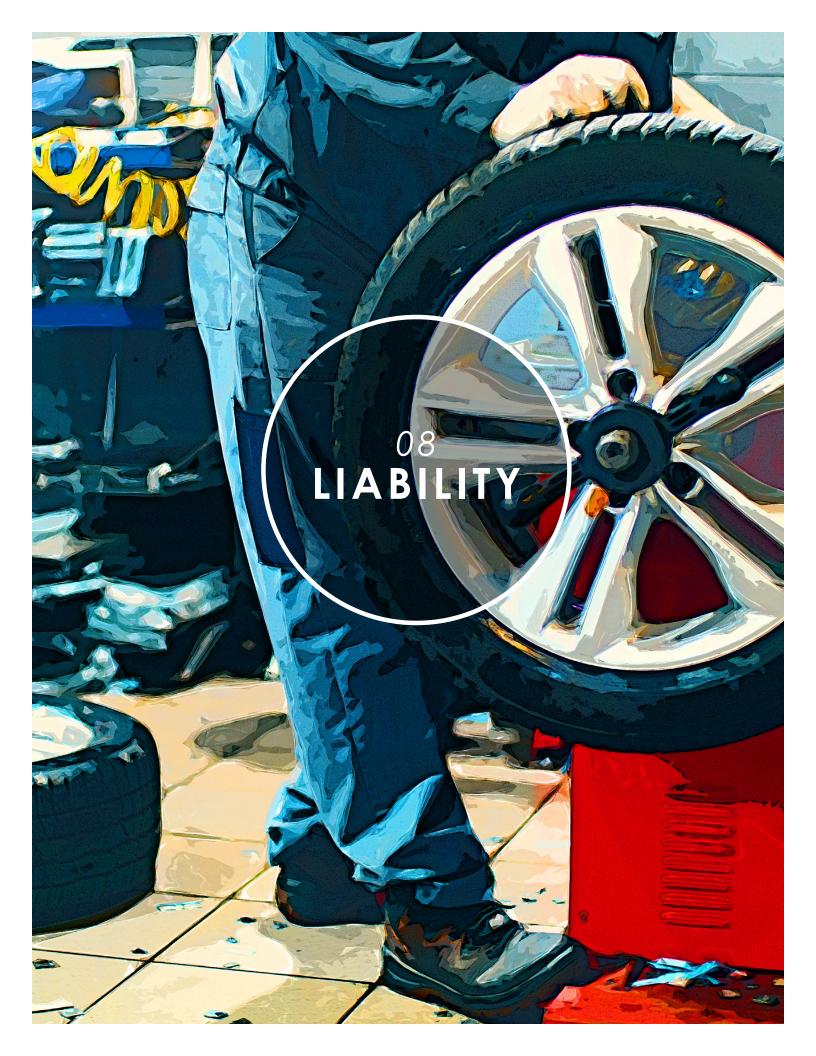
Stand-alone guest network: It's important to ensure that guests cannot access your business network. To help with this, guest networks must be stand-alone and should be professionally installed. You may also want to work with your providers to configure your routers and firewalls to block certain types of data on the guest network to protect your company's reputation.

Splash-page agreement: It's a good idea to consider listing your network acceptable use policies on a splash page that guests must pass through before connecting to the network. Often these pages include a "click here to agree" button.

Guest passwords: Don't give out one password to everyone. Look for third-party services that automatically assign security keys on a per-user basis. Per-user, per-session keys make it easier to block a specific troublesome user with no interruption to everyone else.

Manage guest bandwidth consumption: You likely don't want guests downloading movies or large data files, as this could make the connection unusable for other guests and drive up your internet costs. To combat this, your provider can set up your network to manage guest bandwidth consumption.

Credentials expiration: Login credentials for guests should expire after a certain amount of time, such as every four hours or at the end of the workday. Credentials that don't expire often become a security hole, allowing unauthorized re-entry onto the network down the road.



While customers, vendors, or any other third parties are on your property, you're responsible for their safety on the lot and in the building. For example, if a customer were to fall and sustain an injury while visiting an auto dealer, the auto dealer could be held legally responsible. If a slip, trip, or fall does occur on the premises, a report needs to be filled out and the reason for the incident needs to be corrected as quickly as possible (see Appendix A for an incident report template). In order to limit injuries, personal protection equipment should be required for all employees and provided to visitors when necessary. There should also be visitor sign-in and sign-out logs where appropriate, and visitors should be restricted to certain areas of the premises or accompanied by an employee.

Vehicle maintenance and repair

During different phases of vehicle maintenance and repair, various checks need to be performed. This is important to ensure the vehicle does not malfunction and harm your customer, which could leave you liable for any injuries.

Inspection of a flat or used tire:

- Zipper ruptures are a concern, as they could injure someone close by or cause an accident.
- Check if there has been any damage to the structure of the tire – holes in the tread, amount of tread left, holes in the sidewalls, or damage to the sidewall (because the tire was run flat).
- Speak with the operator to get a better understanding of the tire's history.
- A visual and physical inspection of the inside and outside of the tire should be done, and if necessary, the tire should be inflated safely to determine its condition.

Repair of a tire:

- Check to ensure that there's no structural damage (visual and physical inspection of the inside and outside of the tire).
- Perform proper preparation and cleaning of the damaged area, following all procedures for the repair.
 Once the repair is complete, ensure that the tire is sealed.
- Failure to do these steps properly could result in a blowout that injures someone.

Assembling or disassembling a wheel:

- Proper procedures, techniques, and tools are required to ensure the rubber isn't damaged when it's put on or taken off the rim, which could either cause an instantaneous failure of the tire or a slow leak that would leave the customer with a flat tire.
- There are a wide variety of Tire Pressure
 Monitoring Systems that can be attached
 to the rim or to the tire stem. They can be
 easily damaged if the tire or tool makes
 contact causing the safety function to
 not work properly.

Inflation of the wheel:

- When inflating, the rim is at risk of exploding (if multi-piece rims are being used) or the tire could explode (if there's a defect in the tire or if the tire is damaged). These risks could lead to significant damage to property, equipment, or people.
- A visual and physical inspection of the inside and outside of the tire should be done first.
- Tire cages should be used when inflating truck tires. A clip-on air chuck with a pressure regulator and an extension hose is recommended.



 Plastic rims for smaller pieces of equipment, motorized or non-motorized, can be very dangerous when inflating the tire, as they can crack and explode. Even plastic rims at small sizes and lower pressures can injure an employee. Tire cages may not be effective because of their size, but a clip-on air chuck with a pressure regulator and an extension hose is recommended.

Installation of a wheel onto a vehicle:

- An inspection of the lug nuts and bolts, wheel hub assembly, and bolt holes is necessary to ensure that they're in good condition.
- Proper cleaning of the lug nuts and bolts, wheel, and wheel hub assembly must be done before installation.
- Lug nuts should be torqued with the proper tool to the specifications indicated.
- Over-torquing can stretch the threads or break the bolt, while under-torquing can leave the nut too loose to work properly. Both are equally dangerous and do not provide the proper clamping force required.

Off-site or roadside repair:

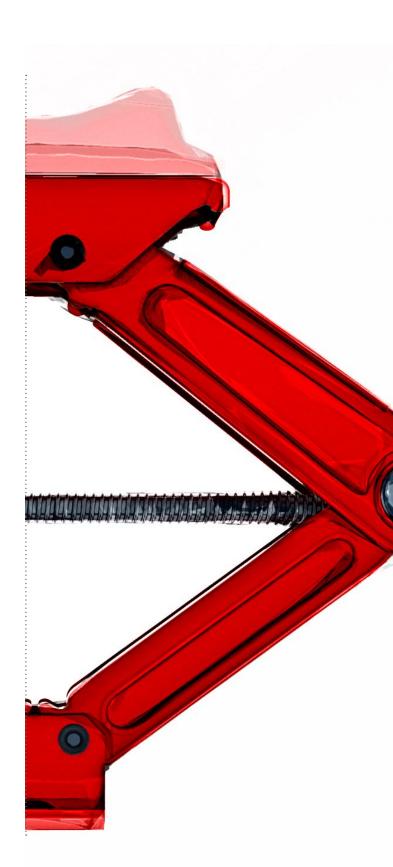
- Off-site or roadside repairs include the processes listed above but are done away from the home shop that would provide adequate time, shelter, and safety.
- All procedures should be followed closely to ensure the work is done properly and safely.
- There's an additional safety hazard for an employee who works at a job site or on the side of the road, where traffic, weather, and surface conditions may not be ideal. Procedures should be developed to support the safety of the employee and ensure the work is done properly. Promote a safe work site by enforcing regular checks, which can ensure the security of the vehicle being worked on and help keep traffic away from the work area. These checks could include steps like moving the vehicle to a more secure location, putting up cones or pylons, and placing lights to indicate the work area.

Access to the shop or warehouse

To avoid being held liable for any injuries, you should restrict customers from entering your shop or warehouse. If limited access is granted, certain personal protective equipment should be required. The customer should be accompanied by an employee, and restricted access may be enforced. Keep in mind that allowing customers this access can affect the quality of work that's being done, result in the distraction of employees, or even lead to injuries to employees or other third parties.

Businesses that offer maintenance or repair services for vehicles could be held liable for a range of problems, which is why it's so important to cover your bases. If work is declined by a customer, you should ask the customer to sign a waiver which acknowledges that they are refusing the work. Waivers should be reviewed by legal counsel. While this doesn't eliminate the responsibility of the business, it does reduce the risk of being held liable if something goes wrong. It also serves to stress the importance of the work to the customer. Similarly, if work is being requested that could compromise the safety of the vehicle or its safety systems (like the removal of a tire pressure monitoring system or the use of unsafe tires), the work should be refused.

If a wheel has been removed from a vehicle, customers should be informed and asked to come back for a torque check. A notice of this should be included in the final paperwork and on the invoice, if possible. While this practice is standard procedure for commercial vehicles, it should be applied to all wheel-offs for all vehicles to minimize liability exposure. It's also vital to perform a final inspection before a vehicle is released back to the customer, to ensure everything is in proper working order and to prevent future issues.



Tire warehouses

Tire warehouses will sometimes hold customers' property in good faith. You're responsible for that inventory while it's in your possession and could be held liable if something were to happen to it. That's why it's important to record the inventory quantity and location, and to secure the inventory properly.

Tire retreaders

When retreading tires, first obtain as much information about the tire as possible from the customer. Some retreaders track the casing from its inception through to the customer, the conditions in which it's used, each retreading, and any work that's done on the tire. The initial inspection is the most important step of the retreading process. There can be up to three stages of inspection:

- A visual hands-on inspection from bead to bead, inside and out, is done to find and mark all visible defects.
- 2. An electronic inspection is done to find all "through-the-tire" penetrations in the crown and sidewall areas, and another inspection to determine the conditions within the casing to confirm it can be completed.
- The final stage involves a bead-to-bead inspection, which includes inflating the tire to operating pressure.

Tires that aren't suitable must be rejected and made unusable. For example, if the tire has been run flat, there will be damage to the sidewall of the tire, making a blowout more likely to occur if the tire is used again.

But the work doesn't end after that initial inspection. Proper testing of the tire needs to be done before it's made available for resale or returned to the customer. There should also be a continual review of the retreading process, employee training, and ongoing inspection and maintenance of the equipment to ensure that the retreading process is as safe and reliable as possible.

To further protect yourself, consider a commercial general liability (CGL) policy: this can play a role in safeguarding you against the financial impact of an accident, no matter what kind of tire business you run. It's the foundation of any liability insurance program for business owners, and it's designed to protect business owners if they are found legally liable for bodily injuries or property damage to a third party.

Tire hoteling

When you offer seasonal storage for customers' winter and summer tires, it opens your business up to risk. It's important to return the tires to the customer in the same condition as when they were received Tires should be stored carefully to protect their integrity and can be individually wrapped and tagged. Inventory control is also essential to make sure the tires can be found easily and quickly, and matched up with the proper owner and vehicle. Tracking and labeling can help reduce the chance of theft or loss, and labels for tire hoteling should utilize radio-frequency identification.

Even if precautions are taken, sometimes things go wrong. That's where care, custody, and control insurance coverage comes in: it is designed to remove indemnification for the insured when property is placed in their care.



Ensuring you and your employees are safe is a top priority for any business owner. At a minimum, companies should be following the NFPA 101: Life Safety Code, National Building Code, National Fire Code, and provincial regulations. For example, some building codes may require that buildings where tires are stored have a separate corridor so that all personnel and tenants of the building can easily exit.

In a business that deals with tires, it's also important to teach proper handling techniques to employees and ensure that they are enforced. If tires are not handled correctly, employees could sustain injuries to their arms, shoulders, or backs. This is especially important with oversized tires, such as commercial truck tires, farm equipment tires, and off-road tires.

Commercial truck tires weigh between 105 to 110 pounds, and farm equipment and off-road tires can weigh significantly more. While these can be handled by a single person, especially if lifting equipment is used, they can also cause serious harm and leave a worker incapacitated to a point where they cannot call for help. In turn, procedures should be created and implemented by the company to reduce the risk of injuries. Some safety measures could include the use of equipment to help with the work, a policy that no person works alone, and regular check-ins to monitor the employees' safety.

To further protect yourself, disability insurance and key person insurance are important. Disability insurance may ensure your income is protected if you suffer from a debilitating injury, while key person insurance can provide financial security if someone who's integral to your operations becomes disabled.



Educating yourself about the risks your tire business could face and taking steps to mitigate those risks is a good first step. It will help reduce hazards on top of improving your company's bottom line. But, should something go wrong, insurance can be vital. Whether it's commercial general liability, commercial property, or business interruption, insurance can be a huge asset when dealing with the aftermath of a loss. After all, without it you could be paying for repair or replacement costs, expensive lawsuits, fines, or settlement fees out of your own pocket.

Federated Insurance is proud to offer flexible policies that include programs to help you manage your risks before they lead to a claim. Federated Insurance's dedicated Risk Services Specialists offer exclusive services to help you protect your building and premises. With our assistance, you'll be able to create, implement, and maintain a company risk management program. We can also provide you and your employees with valuable risk services advice, strategies on how to reduce or mitigate loss, and answers to any questions you may have throughout the process.



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Appendix A **Slip & Fall Incident Report**



Property / Premises Owner or Tenant:				
LOCATION (INSIDE/OUTSIDE)	REPORTED BY (NAME)			
POSITION	PHONE NUMBER(S)			
TIME REPORTED TIME OF INCIDENT	DATE OF REPORTED DATE OF INCIDENT			
Incident and Injury Details	Witnesses			
Injured person's physical description (e.g. height, build,	Name:			
age, hair colour, assistive devices, prominent physical limitations, etc.):	Address:			
	Phone:			
	Name:			
Phone number:	Address:			
Description of injury:				
	Phone:			
	Injured Person's departure from the scene			
Incident description (use reverse for more detail):	☐ Unassisted ☐ Public transit			
	☐ Ambulance ☐ Other:			
	Attachments			
	Attach photographs of the incident site Note: Photos help us to gather evidence and document the condition of the area at the time of the accident.			
Additional Details	Name of photographer:			
Type of footwear worn:	Date photographs taken:			
Weather conditions at the time of incident:	Phone number(s):			
	Signature of incident reporter:			

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