

STAR SECURITY FIRE SAFETY TRAINING

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| Hello everyone, My Name is Susanna and I am one of Star Security's Trainers. I want to |
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| welcome everyone to our session. Today, we're going to cover some |
| crucial aspects of fire safety and how to effectively in an |
| emergency. This training is in accordance with the OSHA 29 CFR 1910.157 guidelines. |
| Our objectives for today's course are comprehensive. We will discuss how fires are |
| you hold concerning |
| extinguishers, how to tackle small fires, and the correct use of a |
| We'll also cover how to inspect and fire extinguisher for different |
| types of fires. |
| Why is this course necessary? The basis lies in the employer's responsibility for employee |
| safety. Fire ranks, costing about 3 billion dollars annually and |
| tragically claiming around 300 workers' lives each year. However, with proper, |
| the probability of fire can be significantly reduced, enhancing, morale, productivity, |
| and overall employee |
| Fire extinguisher training is not just a; it's a |
| With over 150 major fires occurring in workplaces annually and fire being a leading cause of |
| accidental deaths in the United States, OSHA requires employers to provide |
| to all employees without subjecting them to possible injury. |
| |
| Let's discuss the applicable regulations which include the 29CFR for safety and health |
| standards, the industrial safety standard 1910, and portable fire extinguishers standard 157. |
| Additionally, the NFPA 10 and NFPA 101, also known as the Life Safety Code, are crucial in our |
| training today. |
| Every employer must fulfill general program requirements which include: |
| Every employer must runni general program requirements which include. |
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| •, and |
| •· |
| A good fire safety program is important as it helps reduce the probability of fire, lowers |
| rates, increases acceptance of high-turnover jobs, makes |
| about their work, reduces workers' compensation costs, and OSHA |
| compliance to a higher level. |

| The role of the Safety C | Officer is critical. They mana | age the | , |
|--------------------------|--|---|-----------------|
| schedule proper | for employees, | the program as ne | ecessary, |
| | | nly/annual | |
| • | • • | vell. They replace used and do | • |
| | xtinguishers, ensure installe | ed equipment does not block | |
| | - | y players. They share similar d and fire exti | |
| | | uring that employees are ishers are clean and free from | |
| | ocation identification, be fu | process. Extinguishers lly charged, operable, clean, | |
| This chlorobromomethane, | s includes extinguishers usin | ed shells, self-generating soc | |
| extinguishers include m | nonthly visual inspections, a ear tear-down maintenance | nd testing. Basic requirement annual maintenance checks, e, prompt recharging if used | a twelve-year |
| | ng, keeping in mind that sa | n betomo fety is our ultimate goal. Tha | |
| safety — the | | one of the most fundamental looking at a simple but powe gnite and sustain itself: | = |
| 1 2 3 | | | |
| , which is y | our spark or heat source; to | s one of these elements. At to the right, we have, the air a | — anything that |

What's important to understand here is the balance required for a fire to start and continue burning. any one of these elements — be it the fuel, the ignition source, or the oxygen — and the fire will be ______. That's our goal in fire prevention and emergency response: to _____ the triangle, ____ the balance, and ____ the fire from growing or even starting. So as we go forward with this training, remember this . It's not just a theoretical model; it's a guide for _____. Whether you're inspecting your work area for potential _____ sources, ensuring electrical systems don't become _____ points, or to limit oxygen flow, you're actively participating in fire prevention. Keep this triangle in mind every day. It represents the ongoing responsibility we all have to maintain a safe workplace. Let's continue to the next slide to delve deeper into how we can apply this knowledge in real-world situations Continuing from the Fire Triangle, let's explore the ignition sources in more depth. An ignition source is what initiates the fire, the spark that starts it all. There are several types of ignition sources, and it's crucial to recognize them to prevent fires effectively. Firstly, we have ignitions. This can be anything from overloaded circuits, faulty wiring, to improper use of electrical equipment. It's vital to regularly inspect electrical tools and machinery, ensuring they are in good repair and used correctly. Next, we encounter ignition sources. These are your reactive substances and spontaneous combustion materials that can ignite under the right conditions. It's not just about flammable liquids or gases; even seemingly innocuous substances can react violently under certain circumstances. Then we have _____ sources. Excessive heat can come from overused machinery, friction, or even environmental temperatures. Monitoring ______, especially where flammable materials are stored or used, is essential for fire safety. And lastly, sources. While less common in most workplaces, these can include materials that emit radiation, which can potentially cause ignition through intense energy release. In summary, understanding these sources of ignition helps us to anticipate and prevent potential fires. Regular safety checks and adherence to proper handling procedures of materials and equipment are key defenses against these risks. Let's move to the next slide to consider the fuel that feeds a fire.

supports combustion. These three elements must come together in the right mixture for fire to

exist.

| <u>Fuel</u> : | | |
|--|--------------------------|--------------------------|
| Fires need fuel to burn, and this fuel can come in | forms | fuels are things |
| like wood, paper, textiles, and plastics. In our workplac | es, we find these in a | construction |
| materials, office supplies, and personal belongings. | | |
| fuels include solvents, paints, and flamn | nable oils. These ma | terials spread |
| , and their vapours can create explosive mi | | |
| are crucial. | | |
| And then we have, such as natural gas or | propane, which are | highly volatile and |
| can lead to rapid fire spread if Ensu | ring these are contai | ined, and any |
| are addressed, is essential. | _ | - |
| In all cases, controlling the amount and state of these f | uels, keeping them s | ecure and away |
| from ignition sources, is a aspect of fire | e safety. Our next sli | de will address the |
| role of oxygen in supporting combustion. | | |
| _ | | |
| Oxygen: | a Fina Trianala Orres | :!! ! |
| Lastly, let's talk about, the final side of the | | |
| and it's vital for both life and fire. For humans, the air v | | about 21 percent |
| oxygen, and we require a minimum of 19 percent to su | | was 16 narcant |
| Fires, however, are less demanding. | can occur with as io | w as 16 percent |
| oxygen, meaning even in environments that are not ide | ear for breatning, | can still |
| thrive. | r maintura. Just tha rid | aht miy oon sunnart |
| The key takeaway here is the importance of the fuel-air | - | |
| , and controlling the environmen | t can neip prevent a | ille iroili startilig or |
| spreading. Understanding that controlling oxygen levels can be a r | mothed of fire | and |
| | | |
| , such as using smothering technic, can be crucial in emergency situations. | | |
| about firefighting—it's about measures | | |
| to prevent gas build-ups and designing spaces that can | | |
| to prevent gas build-ups and designing spaces that can | be easily isolated iii | the case of a fire. |
| Now that we understand the components of the Fire Ti | riangle, let's look at h | now we can apply |
| this knowledge to use fire extinguishers effectively. We | | |
| , | , | |
| Let's shift our focus to portable fire extinguishers, an es | ssential tool in our _ | against |
| fires. These devices are strategically placed around the | workplace, specifica | Ily and |
| based on the potential types of fires | we might encounte | r. Understanding the |
| of fires is crucial to selecting the right | extinguisher for the | job. |
| Fire extinguishers are not, and different | classes are designed | d to combat specific |
| types of effectively. Knowing which class cor | | |
| ensure safety and could prevent a small fire from become | ming a | _ event. Let's take a |
| closer look at these classes in the next slide | | |
| Mile and the first all and the second first all and the second second first all and the second secon | | tale tale as |
| When we talk about fire classifications, we refer to fou | r distinct types, each | with its own |

| Class A includes ordinary | like wood, paper, cloth, rubber, and certain plastics— |
|--|---|
| common materials in many work en | vironments. |
| Class B is for fires involving | or, such as gasoline, kerosene, paint, |
| and propane. These require special | attention due to their volatile nature. |
| Class C is designated for | fires. These can result from faulty wiring, |
| malfunctioning electrical appliances | |
| Class D is for, | such as magnesium, titanium, and sodium. These fires are |
| | ntense and challenging to extinguish. |
| Knowing these classifications helps i | us understand the appropriate extinguishing agents and |
| methods to use. Let's delve into the | specifics of each class in the following slides |
| | re a common part of our daily lives, which is why we must |
| take preventative steps to mitigate | |
| | areas free from trash. A tidy workspace isn't just about |
| organization; it's a | |
| Dispose of oily rags in designated combustion. | to prevent spontaneous |
| Control and monitor smoking areas, materials. | , if allowed, to prevent any errant embers from igniting |
| Minimize potential ignition sources, | he it from equipment or processes |
| | and |
| | hers are located is not just about compliance; it's about |
| On to the next class. | |
| | |
| Class B fires require our attention du | ue to the of flammable liquids and gases. They |
| | vention and proper handling become critical. |
| Consider alternatives to flammable | cleaning agents where possible. |
| If using flammable liquids, ensure th | neir containers have safety devices like fusible links. |
| When refueling equipment, do it in | well-ventilated areas to prevent vapour |
| Store these liquids properly, following | ng all guidelines for and |
| Ensure good | ventilation when using these substances to prevent fume |
| | |
| Ground storage drums to prevent st | atic discharge sparks. |
| | o designated areas where flammable vapors are controlled |
| | |
| Now, let's proceed to electrical fires | |
| Class C fires involve | _ and require specific safety measures to prevent. |
| Frequently inspect wiring and insula | tion to catch and address deterioration early. |
| Keep motors clean and well-lubricat | ed to prevent overheating. |
| Be alert to unusual, which | ch can be a sign of electrical |
| Avoid overloading outlets and ensur | re connections are secure and compliant with safety |
| standards. | |
| Use fuses with the correct rating to | prevent electrical overloads. |
| Dust and grease on motors can be a | fire hazard, so regular cleaning is necessary. |

Proper maintenance of machinery is not just about efficiency but also about preventing potential fires.

Lastly, we'll cover the specifics of Class D fires.

Class D fires are unique due to the nature of combustible metals.

| Control metal dust ar | nd turnings; the | ey can ignite ea | isily and are di | fficult to exting | guish once alight. |
|--|-------------------|------------------|-------------------|--------------------|--------------------|
| Adhere to established | safety proced | lures when wo | rking with the | se metals. | |
| Avoid using | or | on me | tal fires, as the | ese methods ca | ın exacerbate |
| the situation. | | | | | |
| Understand that met | al fires can rele | ease | _ when they re | eact with | , which |
| fuels the fire further. | | | | | |
| Be aware that metal f | ires can reach | | up to 5000 | degrees, requi | iring special |
| extinguishing agents. | | | | | |
| Extinguishing metal fi | res is challengi | ing and often r | equires specia | lized knowledg | e and agents. |
| Each class of fire pose | es its own risks | and requires s | pecific approa | ches to manag | e effectively. |
| Understanding these | will ensure we | 're prepared to | act swiftly an | d safely in case | e of an |
| emergency. Let's keep | o this knowled | ge in mind as v | ve proceed to | the next segme | ent. |
| Every fire extinguishe | r has a story to | tell, and this s | story is found o | on its | Here we |
| can see a typical | , indicatir | ng the extingui | sher is a multi- | purpose | |
| type. This means it's s | suitable for Cla | ss A, B, and C f | ires - a versati | le tool in fire ei | mergencies. |
| Remember, all fire ex | tinguishers at | our company a | re labeled acco | ording to the N | FPA 10 |
| standard. This ensure | s | , ease of | , ar | nd | during |
| emergencies. The fac | eplate is your o | quick guide to ι | understanding | what fires the | extinguisher can |
| combat and how to u | se it | · | | | |
| Staying compliant isn | 't iust about fo | llowing rules: i | t's about ensu | ring safety. In l | ine with the |
| NFPA 10 standard for | = | _ | | | |
| so are their locations. | = | = | - | | = |
| appropriate use case. Remember, correct labeling can save valuable seconds during an | | | | | |
| emergency. | | | | | |
| This slide shows the | a af a fina | | | . 1 | It in dianton |
| This slide shows the g | | | | | |
| the pressure inside th | | | | | |
| the green area means red, it's either | the extinguisi | ner is | and | | . If it's in the |
| red, it's either | or | needs | | Regular che | cks ensure that |
| when you reach for a | n extinguisher, | it will function | n as | · | |
| Now, take a look at th | - | _ | | | |
| for safety. It prevents | | discharge | and indicates | whether the e | xtinguisher has |

| | Before use, ens r the seal is | - | - | - | • |
|--------------------|--|---------------------------------|-------------------------------|------------------|---|
| , pull t | to activate the ext the, and so inguishing agent. B are vital, as we' | queeze the ut, just squeezin | It's a simp g isn't enough | le yet powerf | ul motion tha |
| When faced wit | h flames, don't foc | us on the top: ai | m at the | where th | e fire is |
| feeding. This sli | de illustrates the pr It's not abo | oper technique: | sweeping side to | side, coverin | g the area of |
| | ndy, sweeping motion | | | | |
| There are critical | al moments when f | ighting a fire is n | ot the safest cho | ice. | |
| | oute is | | | | |
| | ws | | | | |
| | ner isn't having an _ | | | | |
| | life over | | от с ротото | | |
| | or | | on, seek safety. | | |
| | e if you're | | | | |
| | g type of extinguish | | | · | |
| | cautious if the fire in | | | s like drums o | r gases |
| | en in doubt, | | | | - August |
| Selecting the rig | ght fire extinguisher | r is about more t | han just grahhing | the | one |
| | ture of the | | | | |
| | ist, how intense? | | orved and the pot | erreiar severre | , or a fire |
| | 's effectiveness var | ies with the mat | erial it's designed | l to douse | |
| - | mean the difference | | - | | |
| | available to operat | | | | n do so |
| | and | | | | |
| extinguisher eff | | | ne aser can ance | e circii doine, | io manage in |
| • | om the type of fire t | o the handler's | | impacts the c | hoice of |
| | eing informed helps | | | | |
| count the most | | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| When you're fa | ced with a potentia | I fire, selecting t | he right extinguis | her isn't iust a | about the fire |
| • | oout the | _ | | - | |
| | ou must also consid | | | | |
| | s the health and saf | | | | |
| | ntenance and upker | | | | |
| works when ne | | or the extingu | iioriei are just as _ | | ioi chouling |
| TO STATE OF THE | -aca. | | | | |

| knowledge for selecting the appropriate extinguisher |
|--|
| Extinguishers are not one-size-fits-all. They come with different mechanisms. Some expel their content by their own vapor pressure. Others use a separate gas cartridge or cylinder to pressurize the extinguishing agent. Then there are those with stored pressure or that require mechanical pumping. And let's not forget the simplest form—hand propelled, using tools as basic as scoops or buckets. Each method has its application, and understanding this is key to fire safety. |
| Class 'A' fires consume everyday materials like wood and paper. In such situations, remember to aim the extinguishing agent at the fire's Focus on the material to prevent re-ignition and a fire watch afterward. Water, foam, or multi-purpose dry chemicals are your go-to agents here |
| Class 'B' fires involve flammable liquids or gases. When handling these, aim at the fire's and try to stop the flow of Be prepared for the fire to potentially flare up. Your allies here include foam, carbon dioxide, and dry chemicals. |
| Electrical fires require agents. The first step is always to cut the if possible. Avoid water-based extinguishers as they conduct |
| . Suitable options for these fires are carbon dioxide and dry chemicals. |
| Combustible metals require special attention as they burn hot. Use extinguishing agents that leave a which can cool the metal and prevent reignition. Keep in mind, these residues can be damaging to |
| Regular inspections are a must. Check your extinguishers, service them annually, and more often if required by local codes. Don't forget to document each inspection. |
| Knowing where your fire extinguishers are and the potential fires they might need to combat is only the start. Ensure the right is on hand, check for,, and ensure everything is If you find issues, them immediately. The goal is, and are how we achieve it. |
| As we wrap up our discussion on fire safety and extinguishers, remember that an inspection isn't just about checking the device itself. It's about the bigger picture: ensuring that every area, especially those designated as hazardous, has quick and easy access to the correct type of fire extinguisher. It's not enough to have these life-saving devices on-site; they must be positioned thoughtfully, in locations where they can be reached swiftly and utilized effectively in an emergency. |

Survey your environment, assess the risks, and position your fire extinguishers strategically. This foresight could make all the difference in preventing a small spark from becoming a

destructive blaze. Remember, readiness and positioning are as critical as the maintenance of the extinguishers themselves."

| preparedness starts w | rith understanding. We've learn | erry with us the knowledge that ed about the different classes of fires, the maintenance and inspection protocols. | | |
|----------------------------|--------------------------------------|--|--|--|
| But beyond | , it's the culture of | that we build and maintain that | | |
| truly | our workspaces. Let us be | ,, and | | |
| of one | another in fostering a safe | Keep your eyes, | | |
| not just for fire risks, b | out also for | to improve our readiness. After all, the | | |
| safety of our team and | d facility isn't just in the hands o | f a few—it's a collective responsibility. | | |
| | and is the best protection | to safety. Stay alert, stay safe, on. | | |