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NEW QUESTION: 1
Which smoke detector type contains a small amount of radioactive material and functions by sensing a decrease in conductance of the air when smoke particles enter the chamber?
A. Photoelectric
B. Cloud chamber air sampling
C. Light scattering
D. Ionization
Answer: (SHOW ANSWER)
Explanation

Smoke detector
Explore
The smoke detector type that contains a small amount of radioactive material and functions by sensing a decrease in conductance of the air when smoke particles enter the chamber is theionization smoke detector.
Ionization smoke detectors use a small amount of americium-241, a radioactive element, to ionize the air molecules inside a sensing chamber. This creates a low-level electric current between two electrodes. When smoke enters the chamber, it disrupts the ionized air and reduces the current flow. This triggers the alarm to sound.Ionization smoke detectors are

more sensitive to small particles of smoke, such as those produced by flaming fires1.However, they may also be more prone to false alarms from cooking or steam, and they require proper disposal of the radioactive source2.
References:
Smoke Detector Types: Which Type of Smoke Detector Is Best? - X-Sense
How Does Your Smoke Detector Work? - ThoughtCo

NEW QUESTION: 2
What NFPA code contains requirements for the installation of gas-tired restaurant cooking appliances?
A. 105
B. 54
C. 99
D. 101
Answer: B (LEAVE A REPLY)

NEW QUESTION: 3
Proper exit design permits everyone to leave the fire endangered area:
A. prior to an untenable atmosphere
B. in the shortest travel distance
C. in the shortest possible time
D. without fear of loss of life
Answer: A (LEAVE A REPLY)

NEW QUESTION: 4
What is the occupancy factor used by the Insurance Services Office (ISO) for computing required fire flow for C-3 (Combustible)?
A. 0.75
B. 0.85
C. 1.00
D. 1.15
Answer: (SHOW ANSWER)
The occupancy factor used by the Insurance Services Office (ISO) for computing required fire flow for C-3 (Combustible) is 0.85. This means that the combustible occupancy has a moderate fire load and requires 85% of the fire flow calculated for the same building with an ordinary occupancy. The occupancy factor reflects the influence of the contents and activities within the building on the potential fire severity. The ISO assigns different occupancy factors for different types of occupancies, ranging from 0.60 for low fire load to 1.75 for high fire load12 Reference:
Guide For Determination Of Required Fire Flow 06-06-20141
Guide For Determination Of Required Fire Flow 07-20052

NEW QUESTION: 5
What dry chemical agent is called multipurpose because it can be effective on Class A, B, C fires?
A. Potassium bicarbonate
B. Potassium chloride
C. Sodium bicarbonate
D. Monoammonium phosphate
Answer: D (LEAVE A REPLY)
Multi-Purpose Dry Chemical (A, B, C)
A dry chemical agent called mono ammonium phosphate. The chemical is non-conductive and can be mildly corrosive if moisture is present. In order to avoid corrosion, it is necessary to scrub and thoroughly cleanup the contacted area once the fire is out. A dry chemical fire extinguisher is usually used in schools, general offices, hospitals, homes, etc.
Regular Dry Chemical (B, C)
A dry chemical agent called sodium bicarbonate. It is non-toxic, non-conductive and non-corrosive. It is easy to cleanup, requiring only vacuuming, sweeping or flushing with water. Extinguishers with sodium bicarbonate are usually used in residential kitchens, laboratories, garages, etc.
Carbon Dioxide (B, C)
Carbon dioxide removes oxygen to stop a fire but has limited range. It is environmentally friendly and leaves no residue, so cleanup is unnecessary. Extinguishers with carbon dioxide are usually used in contaminationsensitive places such as computer rooms, labs, food storage areas, processing plants, etc.
Halotron (A, B, C)
A vaporizing liquid that is ozone friendly and leaves no residue. Because it requires no cleanup, fire extinguishers with halotron are ideal for computer rooms, telecommunication areas, theaters, etc.
Foam (A, B)
Foam floats on flammable liquids to tame the fire and helps prevent reflashes. To cleanup the affected area, it must be washed away and left to evaporate. Fire extinguishers with foam are usually used in garages, homes, vehicles, workshops, etc.
Purple K Dry Chemical (B, C)
A dry chemical called potassium bicarbonate. It is non-conductive and non-corrosive. Clean up requires vacuuming, sweeping or flushing with water. Extinguishers with potassium bicarbonate are usually used in military facilities, oil companies, vehicles, etc.
Water (A)
The most common agent is water; however, it cannot be used for class B or C fires because it is conductive. Waterbased fire extinguishers are usually used in stockrooms, schools, offices, etc.

NEW QUESTION: 6
What has been the largest terrorist event in the history of the United States?
A. The Alfred P. Murrah Building bombing in Oklahoma City
B. The World Trade Center attack in New York
C. The Kobar Towers military housing bombing in Daharan
D. The bombing of Pan Am flight 103 over Lockerbie
Answer: (SHOW ANSWER)

NEW QUESTION: 7
When evaluating the hydraulic properties of water for fire protection system, what is the measurement of a fluid's resistance to flow?
A. Velocity
B. Viscosity
C. Pressure
D. Density
Answer: B (LEAVE A REPLY)
Explanation
The measurement of a fluid's resistance to flow is calledviscosity.Viscosity is the property of a fluid that describes how easily it can deform or move when subjected to a shear stress, such as the force exerted by a pipe wall or a pump1. A fluid with high viscosity, such as honey, resists flow and requires more pressure to overcome the friction between its layers.A fluid with low viscosity, such as water, flows easily and has less frictional resistance2.Viscosity affects the hydraulic properties of water for fire protection systems, such as the flow rate, pressure loss, and pump power3. Viscosity is usually expressed in units of pascal-second (Pa s) or centipoise (cP) for liquids, and is dependent on the temperature and composition of the fluid.References:
Viscosity | Definition, Facts, Formula, Units, & Examples
Viscosity - The Physics Hypertextbook
Fire Pump Types | NFPA
[12.4: Viscosity and Laminar Flow; Poiseuille's Law]

NEW QUESTION: 8
Typical fire pump drivers reach maximum brake horsepower between
A. 65-85% of rated capacity.
B. 90-100% of rated capacity.
C. 110-125% of rated capacity.
D. 140-170% of rated capacity.
Answer: D (LEAVE A REPLY)
Explanation

Fire pump

Explore

Typical fire pump drivers reach maximum brake horsepower (BHP) between 140% and 170% of rated capacity, depending on the type and size of the pump. This means that the driver must be able to provide enough power to operate the pump at its peak efficiency point, which is usually beyond the rated capacity. The rated capacity is the flow rate at which the pump is designed to deliver a certain pressure, as specified by NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection. The maximum BHP is the highest power output required by the pump at any point on its performancecurve. The driver must be sized to match the maximum BHP of the pump, with some allowance for service factor and safety margin.References

:Understanding the Basics of Fire Pumps | Pumps & Systems;How are Engines and Motors Sized for Fire Pumps?; NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection, 2023 Edition, Chapter 4, Section 4.7.

NEW QUESTION: 9

To be considered a family day-care home, what is the maximum allowable number of clients?

A. Two

B. Four

C. Six

D. Twelve

Answer: C (LEAVE A REPLY)

The maximum allowable number of clients for a family day-care home varies by state and territory, but generally ranges from four to six children unrelated to the operator. A family day-care home is a facility in which a small group of children receive child care services in the provider's own home, such as a house, apartment, or condo unit1. To ensure a safe care environment, states and territories use child care licensing regulations to limit the number of children, as well as the number of infants and toddlers, that can receive care in a family day-care home1. Some states and territories may also offer certification or registration to help ensure some basic health and safety standards in certain home-based child care programs1. To learn more about how your state or territory regulates family day-care homes,

you can visit the child care consumer education website and child care resource and referral agency for your state or territory1. Reference:
Family Child Care Homes | Childcare.gov

NEW QUESTION: 10
Which system communicates information of interest to U.S. critical infrastructures that does not meet the timeliness, specificity, or significance thresholds?
A. Homeland Security Information Bulletins
B. Homeland Security Threat Advisories
C. Color-coded threat-level system
D. Homeland Security Advisory System
Answer: (SHOW ANSWER)

NEW QUESTION: 11
What type of team conducts a quick evaluation of the area to identify the number of people involved?
A. Rescue
B. Search
C. Recon
D. Survey
Answer: (SHOW ANSWER)

NEW QUESTION: 12
Sound meters used to test notification appliances in fire alarm systems shall comply with which standard?
A. NFPA 70
B. NFPA 72
C. ANSI S12.13
D. ANSI S1.42
Answer: D (LEAVE A REPLY)
Explanation
ANSI S1.4a
Sound meters used to test notification appliances in fire alarm systems shall comply with the standard ANSI S1.4a, Specifications for Sound Level Meters, Type 2 requirements, according to NFPA 72 2010, the National Fire Alarm and Signaling Code.This standard specifies the performance and accuracy criteria for sound level meters that are used to measure the sound pressure levels of audible signals in fire alarm systems1

NEW QUESTION: 13
The temperature rating of an extra high sprinkler head with a purple glass bulb color is_____.

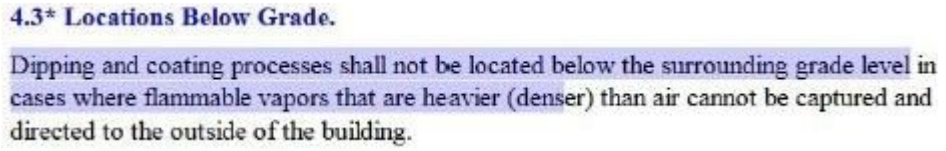
A. 250-300"F(121-149'C)
B. 325-375'F(163-191"C)
C. 175-225'F(79-107'C)
D. 135-170'F(57-77X)
Answer: B (LEAVE A REPLY)

NEW QUESTION: 14
The three (3) components lot an occupant response to a fire include total evacuation partial evacuation and_____.
A. Horizontal exits
B. Defend m place
C. Pull evacuation
D. Vertical exits
Answer: (SHOW ANSWER)

NEW QUESTION: 15
The principle fuels used in a modern grain dryer are natural gas, vaporized liquid propane, and
A. hydrogen.
B. methane.
C. gasoline.
D. fuel oil.
Answer: (SHOW ANSWER)

NEW QUESTION: 16
The Safety Class for propane refrigerant R-290 is
A. A2
B. A3
C. B1.
D. B2
Answer: B (LEAVE A REPLY)
The safety class for propane refrigerant R-290 is A3, which means it has no toxicity but high flammability. The safety class is determined by the ASHRAE Standard 34, which assigns a capital letter (A or B) for the toxicity level and a number (1, 2, or 3) for the flammability level of a refrigerant. Propane has a very low global warming potential and ozone depletion potential, but it also has a very low flash point and high auto ignition temperature, which make it highly flammable in the presence of ignition sources. Reference: Propane R-290 | Copeland US; R-290 Propane Refrigerant Fact & Info Sheet; Safety Data Sheet - Refrigerants; NFPA Fire Protection Handbook, 21st Edition, Chapter 3, Section 3.3.4.

NEW QUESTION: 17
When evaluating dipping and coating processes, flammable liquid vapors are usually.
A. denser than air, therefore, flow to high points.
B. lighter than air, therefore, flow to low points.
C. lighter than air, therefore, flow to high points.
D. denser than air, therefore, flow to low points.
Answer: C (LEAVE A REPLY)


4.3* Locations Below Grade.

Dipping and coating processes shall not be located below the surrounding grade level in cases where flammable vapors that are heavier (denser) than air cannot be captured and directed to the outside of the building.

http://hamyarenergy.com/static/fckimages/files/NFPA/Hamyar%20Energy%20NFPA%2034%20-%202007.pdf

NEW QUESTION: 18
The duration of required fire flow in public supply systems ranges from
A. 1-4 hours.
B. 1-6 hours.
C. 2-10 hours.
D. 3-8 hours.
Answer: A (LEAVE A REPLY)
The duration of required fire flow in public supply systems depends on the type of occupancy, construction, and exposure of the building, as well as the availability and reliability of the water supply. According to NFPA 1, Fire Code, Table 18.4.5.1.2, the minimum duration of fire flow for most occupancies ranges from 1 to 4 hours, with some exceptions for high-rise buildings, health care facilities, and special hazards. The fire flow duration is intended to provide enough water for fire suppression and exposure protection until the fire is under control or extinguished. Reference: NFPA 1, Fire Code, 2023 Edition, Section 18.4.5.1.2 and Table 18.4.5.1.2; NFPA Fire Protection Handbook, 21st Edition, Chapter 9, Section 9.2.2.

NEW QUESTION: 19
What is the most common cause of structure fires due to hot work?
A. Welding torch

B. Heat treating equipment
C. Cutting torch
D. Soldering equipment
Answer: A (LEAVE A REPLY)

NEW QUESTION: 20
Fire alarm wire failure can be classified as:
I) Conductor breakage
II) Short circuits
III) Insulation loss
IV) Trouble signals
A. II and IV
B. II
C. I
D. I and III
Answer: A (LEAVE A REPLY)

NEW QUESTION: 21
How many extra sprinklers should be kepi for a system size of more than 1000?
A. 12 sprinklers
B. 48 sprinklers
C. 14 sprinklers
D. 6 sprinklers
Answer: (SHOW ANSWER)

NEW QUESTION: 22
What is the required cranking cycle time established by NFPA for a diesel engine controller on a fire pump?
A. 15 seconds cranking 15 seconds resting
B. 20 seconds cranking 20 seconds resting
C. 25 seconds cranking 25 seconds resting
D. 10 seconds cranking 10 seconds resting
Answer: B (LEAVE A REPLY)
NFPA 20 V Instrumentation & Control
* Each engine shall be provided with two storage battery units.
* Electrolyte shall be added to the batteries a minimum of 24 hours prior to the time the engine has to be started.
* At 4.5 X C (40 X F) each battery shall have twice the capacity sufficient to maintain 3 minutes attempt-to-start cycle (15 seconds of cranking and 15 seconds of rest in six consecutive cycles.

NEW QUESTION: 23
When assessing industrial fire risks, the type of risk management conducted depends on the significance of the decision, the complexity of the problem, and
A. evaluation methodologies.
B. owner and management expectations.
C. time and cost limitations.
D. documentation requirements.
Answer: C (LEAVE A REPLY)
The type of risk management conducted when assessing industrial fire risks depends on the significance of the decision, the complexity of the problem, and the time and cost limitations. According to NFPA 101, Life Safety Code, "The level of risk management required for a given hazard is determined by a combination of factors, including the severity of the consequences, the likelihood of occurrence, and the availability of resources."1 Therefore, different types of risk management may be applied depending on these factors. Reference: 1: NFPA 101, Life Safety Code, 2021 edition, Section 7.2.3.

NEW QUESTION: 24
The use of multiple agencies for the delivery of EMS is commonly referred to as a:
A. combined response.
B. multiple response
C. tiered response
D. mass response
Answer: A (LEAVE A REPLY)

NEW QUESTION: 25
How would you define an emergency involving the release or potential release of hazardouse materials/WMD with or without fire?
A. Hazardous materials incident
B. Bulk packaging response
C. Outcome
D. Response community
Answer: A (LEAVE A REPLY)

NEW QUESTION: 26
What is the minimum pipe diameter size for direct discharge of steam inside a water tank?
A. 1/2 in. (13 mm)
B. 1 in. (25 mm)
C. 1 1/2 in. (38 mm)
D. 2 in. (50 mm)
Answer: (SHOW ANSWER)
Explanation

The minimum pipe diameter size for direct discharge of steam inside a water tank is 2 in. (50 mm), according to NFPA 13, Standard for the Installation of Sprinkler Systems. This is to prevent water hammer, noise, and vibration caused by the rapid condensation of steam when it contacts the water. The pipe should also be equipped with a check valve to prevent backflow of water into the steam source.References: NFPA 13, Standard for the Installation of Sprinkler Systems, 2023 Edition, Chapter 8, Section 8.16.4.5.3; NFPA Fire Protection Handbook, 21st Edition, Chapter 14, Section 14.3.4.2.

NEW QUESTION: 27
Which type of roof covering is most effective in preventing the spread of fires from flying brands?
A. Class A
B. Class B
C. Class C
D. Class D
Answer: A (LEAVE A REPLY)
Explanation
Class A roof coverings are the most effective in preventing the spread of fires from flying brands. Flying brands are burning embers or pieces of combustible material that are carried by the wind and can ignite other combustible materials or structures. Class A roof coverings are tested to withstand severe fire exposure from simulated fire sources, such as large burning brands, and do not produce flying brands themselves. Class A roof coverings include materials such as asphalt shingles, metal sheets, clay or concrete tiles, slate, and some types of synthetic membranes12. References:
Class A, B, and C Roof Ratings - UL
Fire-Resistant Roofs - Fire Safe Marin

NEW QUESTION: 28
Which type of plan review may provide information about a modification such as the removal of an abandoned underground flammable liquid tank?
A. Site plan review
B. Preliminary building plan review
C. Final building plan review
D. As built plan review
Answer: D (LEAVE A REPLY)
An as built plan review is a type of plan review that may provide information about a modification such as the removal of an abandoned underground flammable liquid tank. An as built plan review is conducted after the construction or alteration of a building or system is completed and before the final approval or acceptance by the AHJ. An as built plan review verifies that the building or system conforms to the approved plans and specifications and complies with the applicable codes and standards. An as built plan review may also identify

any changes or deviations from the original plans that occurred during the construction or alteration process, such as the removal of an underground tank. Reference:
NFPA 1: Fire Code, 2018 Edition, Section 1.12.8.1.1 1
Fire Protection Handbook, 20th Edition, Volume 1, Chapter 5, Section 5.2.3.4 2

NEW QUESTION: 29
in public operating mode how many decibels above the 24-hour average must the sonic pressure level (SPL) produced by a fire alarm system reach?
A. 20 db
B. 15 db
C. 5 db
D. 12 db
Answer: (SHOW ANSWER)

NEW QUESTION: 30
A K-14 (200) spunkier flows what percent of a nominal K-5.6 (80) sprinkler?
A. 350%
B. 200%
C. 300%
D. 250%
Answer: D (LEAVE A REPLY)

NEW QUESTION: 31
Liquid carbon dioxide can exist at elevated pressure above 5.2 atmospheres when the temperature is a minimum of:
A. -71 X F (-57 X C)
B. -110 X F (-79 X C)
C. -83 X F (-64 X C)
D. -79 X F (-62 X C)
Answer: D (LEAVE A REPLY)
Carbon dioxide:
Most commonly used inert gas!
* Table 13-3: Minimum Required Volume Ratios of Carbon Dioxide or Nitrogen to Air That Will Prevent Burning of Various Vapors at 25 XC
* Substantially more effective than nitrogen, on a volume basis; nearly equal effectiveness on a mass basis
* Toxic at fire suppression levels
* Storage: CO2 can exist only as a gas or solid at normal atmospheric pressure.
* Solid form (dry ice) only exists below V110 XF (V79 XC), at which temperature it undergoes sublimation directly to the vapor, without melting.

* CO_2 liquid can exist at elevated pressures, as long as the temperature is above V70 XF (V57 XC) and pressure is greater than 520 kPa (5.2 atm).
* Triple point: The unique temperature and pressure at which all three phases (gas, liquid, and solid) of a pure substance can coexist.
* Critical temperature: The temperature of a pure substance above which distinct liquid and vapor phases cannot coexist, regardless of the pressure (31 XC for liquid CO_2)
* CO_2 is more commonly used for fire extinguishment because comparably sized vessels can hold 3 times as much CO_2 as nitrogen! This is critical in limited space considerations!
* CO_2 is used in hand-held extinguishers.
* High vapor pressure is used to expel liquid CO_2.
* Cooling effect of CO_2 on a hot surface is only 1/16th that of water discharged at an equal rate.

NEW QUESTION: 32
Explosions or fires from flammable gas or oil fuel vapor-air mixtures may be prevented by ventilation and controls that keep the flammable vapor content below what percent of the lower flammable limit of the vapor-air mixture?
A. 15%
B. 25%
C. 35%
D. 45%
Answer: B (LEAVE A REPLY)
. 25%
Explosions or fires from flammable gas or oil fuel vapor-air mixtures may be prevented by ventilation and controls that keep the flammable vapor content below 25% of the lower flammable limit (LFL) of the vapor-air mixture, according to the web search results. The LFL is the lowest concentration of a gas or vapor in air that can produce a flash of fire in the presence of an ignition source. Below the LFL, the mixture is too lean to burn. The LFL varies for different gases and vapors, and it is usually expressed as a percentage by volume of air at 25°C and atmospheric pressure. For example, the LFL of methane is 4.4%, which means that a mixture of methane and air with less than 4.4% methane cannot ignite. To prevent explosions or fires, the concentration of flammable gases or vapors should be kept

below 25% of their LFL, which is equivalent to 1.1% methane in this case. Ventilation, natural or mechanical, is one of the methods to achieve this by diluting the flammable gases or vapors with fresh air. Controls, such as gas detectors, alarms, valves, and interlocks, are another method to monitor and regulate the flammable gas or vapor levels and prevent them from reaching dangerous concentrations1234

NEW QUESTION: 33
Which of the following is produced by pyrolysis and/or incomplete combustion of organic materials and is referred to as an organic irritant?
A. Argon
B. Hydrogen
C. Formaldehyde
D. Cyanide
Answer: D (LEAVE A REPLY)

NEW QUESTION: 34
NFPA 750 defines a low-pressure water mist system as one that operates at or below
A. 125 psi (8.6 bar).
B. 150 psi (10.3 bar).
C. 175 psi (11.9 bar).
D. 200 psi (13.8 bar).
Answer: C (LEAVE A REPLY)
According to NFPA 750-2019, a low-pressure water mist system is one that operates at or below 175 psi (11.9 bar) at the nozzle inlet. This is the maximum pressure limit for this classification of water mist systems.

NEW QUESTION: 35
Which type of fire alarm system transmits signals that are permanently recorded at a constantly attended supervising station located either at the protected premises or at another location of the property owner?
A. Proprietary
B. Auxiliary
C. Central station
D. Remote station
Answer: (SHOW ANSWER)
Explanation
A proprietary fire alarm system is a type of fire alarm system that transmits signals that are permanently recorded at a constantly attended supervising station located either at the protected premises or at another location of the property owner. A proprietary fire alarm system is owned and operated by the property owner or the owner's agent. A proprietary fire

alarm system is intended to provide fire alarm service to a single property or a campus of related properties.References:
NFPA 72: National Fire Alarm and Signaling Code, 2019 Edition, Section 3.3.105.11 Fire Protection Handbook, 20th Edition, Volume 1, Chapter 7, Section 7.2.1.12

NEW QUESTION: 36
Probabilistic fire models are categorized into all of the following EXCEPT
A. network.
B. statistical.
C. simulation.
D. behavioral.
Answer: (SHOW ANSWER)
Probabilistic fire models are categorized into network, statistical, simulation, and behavioral models. Network models use graph theory to represent the fire spread and the fire protection system in a building. Statistical models use historical data and probability distributions to estimate the likelihood and consequences of fire scenarios. Simulation models use mathematical equations and numerical methods to describe the physical and chemical processes of fire and its effects on the environment and the occupants. Behavioral models use psychological and sociological theories to predict the human response and evacuation behavior in case of fire. Network models are not a common category of probabilistic fire models, and they are not mentioned in the sources provided by the user. Therefore, network models are the correct answer.

NEW QUESTION: 37
Which type of plan review may provide information about a modification such as the removal of an abandoned underground flammable liquid tank?
A. Site plan review
B. Preliminary building plan review
C. Final building plan review
D. As built plan review
Answer: D (LEAVE A REPLY)
Explanation
An as built plan review is a type of plan review that may provide information about a modification such as the removal of an abandoned underground flammable liquid tank. An as built plan review is conducted after the construction or alteration of a building orsystem is completed and before the final approval or acceptance by the AHJ. An as built plan review verifies that the building or system conforms to the approved plans and specifications and complies with the applicable codes and standards. An as built plan review may also identify any changes or deviations from the original plans that occurred during the construction or alteration process, such as the removal of an underground tank.References:
NFPA 1: Fire Code, 2018 Edition, Section 1.12.8.1.11

Fire Protection Handbook, 20th Edition, Volume 1, Chapter 5, Section 5.2.3.42

NEW QUESTION: 38
What is the largest water droplet that could be sustained in a highly turbulent fire environment?
A. 2500 microns
B. 2000 microns
C. 1000 microns
D. 1500 microns
Answer: B (LEAVE A REPLY)

NEW QUESTION: 39
Which of the following represents a group A plastic?
A. Urea rubber
B. Natural rubber
C. Chloroprene rubber
D. Silicone rubber
Answer: (SHOW ANSWER)

NEW QUESTION: 40
Shopping malls, schools, and stadiums are examples of _____ targets.
A. civilian
B. ecoterrorism
C. symbolic
D. infrastructure
Answer: A (LEAVE A REPLY)

NEW QUESTION: 41
Below what population density will individuals move at their own speed independent of the speed of others around them?
A. 0.025 person/ft2 (0.54 person/m2)
B. 0.025 person/ft2 (0.27 person/m2)
C. 0.025 person/ft2 (0.27 person/m2)
D. 0.025 person/ft2 (0.27 person/m2)
Answer: C (LEAVE A REPLY)

NEW QUESTION: 42
Radiative energy released during a fire that is the visible range is transmitted in which of the following wavelengths?
A. 22.0-25.0 £gm
B. 0.35-0.75 £gm

C. 0.75-22.0 £gm
D. 0.10-0.35 £gm
Answer: (SHOW ANSWER)

NEW QUESTION: 43
What size dipping operation requires an automatic fire extinguishing system?
A. 150 gal (570 L)
B. 175 gal (662 L)
C. 225 gal (852 L)
D. 200 gal (757 L)
Answer: (SHOW ANSWER)

NEW QUESTION: 44
Where sprinkler protection is provided for the protection for cation record storage with catwalk access what percentage of the shelving must be open?
A. 50 %
B. 20 %
C. 75 %
D. 40 %
Answer: A (LEAVE A REPLY)

NEW QUESTION: 45
An agent that takes weeks to evaporate is said to be:
A. volatile.
B. stable.
C. hydrogenated.
D. persistent.
Answer: B (LEAVE A REPLY)

NEW QUESTION: 46
Building codes should limit the size of an unsprinklered facility used for the processing and storage of Municipal Solid Waste built of type V construction to how many square feet?
A. 7,500
B. 8,500
C. 9,000
D. 10,000
Answer: A (LEAVE A REPLY)
Explanation
According to NFPA 230: Standard for the Fire Protection of Storage, 2015 Edition, building codes should limit the size of an unsprinklered facility used for the processing and storage of Municipal Solid Waste (MSW) built of type V construction to 7,500 ft2 (697 m2). This is

based on the assumption that the MSW has a heat release rate of 18,000 Btu/ft2-min (200 kW/m2) and a fire growth rate of 0.046 min-1.Type V construction is defined as a type of construction in which the structural elements, exterior walls, and interior walls are of any materials permitted by the code123 References:
NFPA 230: Standard for the Fire Protection of Storage
5 Types of Construction per the IBC | Building Code Trainer
2.4 MUNICIPAL SOLID WASTE LANDFILLS - U.S. Environmental Protection Agency

NEW QUESTION: 47
For standpipe systems containing 11/2 - 21/2 in. (40 - 65 mm) hose connection outlets without preconnected hose, a pressure regulating device is required when pressure exceeds
A. 100 psi (689 kPa).
B. 125 psi (862 kPa).
C. 150 psi (1034 kPa).
D. 175 psi (1207 kPa).
Answer: D (LEAVE A REPLY)
Explanation

Standpipe
Explore
175 psi (1207 kPa).
For standpipe systems containing 11/2 - 21/2 in. (40 - 65 mm) hose connection outlets without preconnected hose, a pressure regulating device is required when the pressure exceeds 175 psi (1207 kPa), according to NFPA 14, Standard for the Installation of Standpipe and Hose Systems, 2019 edition. This requirement applies to Class I and Class III standpipe systems, which are intended for use by fire department personnel or trained

occupants. A pressure regulating device is a device that automatically reduces and controls the pressure of the water flowing through the hose connection outlet to a predetermined value.This device helps to prevent excessive pressure that could damage the hose, nozzle, or fittings, or cause difficulty in handling the hose stream123 References:
NFPA 14: Standard for the Installation of Standpipe and Hose Systems1
Standpipe System Design and Calculations | NFPA | NFPA2
ENGINE COMPANY STANDPIPE OPERATIONS:PRESSURE-REGULATING DEVICES3

NEW QUESTION: 48
Fire alarm systems audible appliances ratings are usually stated as a sound pressure level (SPL) at what distance?
A. 1 ft (0.31 m)
B. 10 ft (3.05 m)
C. 15 ft (4.57 m)
D. 20 ft (6.10 m)
Answer: B (LEAVE A REPLY)
Explanation
Fire alarm systems audible appliances ratings are usually stated as a sound pressure level (SPL) at 10 ft (3.05 m) from the appliance. The SPL is measured in decibels (dB) and indicates the loudness of the sound produced by the appliance. The SPL at 10 ft (3.05 m) is used as a standard reference point for comparing different audible appliances and for designing fire alarm systems to meet the required audibility levels.References:
NFPA 72: National Fire Alarm and Signaling Code, 2019 Edition, Section 18.4.3.11 Fire Protection Handbook, 20th Edition, Volume 1, Chapter 7, Section 7.8.2.12

NEW QUESTION: 49
A multistage centrifugal fire pump is defined as
A. a pump installed on more than one floor or one building.
B. requiring more than one input location connection.
C. being able to operate with a diesel, steam or electric driver.
D. having two or more impellers on one shaft as a single unit.
Answer: (SHOW ANSWER)

Explore

A multistage centrifugal fire pump is defined as having two or more impellers on one shaft as a single unit. A multistage centrifugal pump is a type of centrifugal pump that uses multiple impellers to increase the pressure and flow of water. Each impeller acts like a single-stage pump within a chain of pumps, and the water passes through each impeller in series, gaining pressure and velocity at each stage1. A multistage centrifugal fire pump is used to provide high-pressure water for fire protection systems, especially in high-rise buildings or large industrial facilities2. A multistage centrifugal fire pump can be driven by an electric motor, a diesel engine, or a steam turbine3. Reference:

Our Guide to Multistage Centrifugal Pumps | C&B Equipment

Fire Pump Types | NFPA

NFPA 20: Changes to the fire pump standard - Consulting

NEW QUESTION: 50

The type of smoke detector that operates with a small radioactive source is

A. ionization

B. photoelectric

C. beam

D. line

Answer: (SHOW ANSWER)

NEW QUESTION: 51

What condition can occur when a pressure tank and a gravity tank are connected to a sprinkler system through a common riser?

A. Gravity lock

B. Pressure lock

C. Air lock

D. Vapor lock

Answer: B (LEAVE A REPLY)

Air Lock A condition known as air lock can occur when a pressure tank and a gravity tank are connected to a sprinkler system through a common riser.

Air Lock

A condition known as air lock can occur when a pressure tank and a gravity tank are connected to a sprinkler system through a common riser. Air lock occurs if the gravity water pressure at the gravity tank check valve is less than the air pressure trapped in the pressure tank and the common riser by a column of water in the sprinkler system, after water has been drained from the pressure tank. For instance, if the pressure tank is kept two-thirds full of water with an air pressure of 75 psi (517 kPa), and a sprinkler opens 35 ft (10.5 m) or more above the point where connections from both tanks enter the common riser supplying the sprinkler system, the pressure tank drains, leaving an air pressure of 15 psi (103 kPa) balanced by a column of water of equal pressure [35 ft (10.5 m) head] in the sprinkler system. The gravity tank check valve is held closed unless the water pressure from the gravity tank is more than 15 psi (103 kPa) [35 ft (10.5 m) head].

Air lock can be prevented by increasing the volume of water and decreasing the air pressure in the pressure tank so that little or no air pressure remains after water has been exhausted. For example, if the pressure tank is kept four-fifths full of water, with an air pressure of 60 psi (414 kPa), the air pressure remaining in the tank after water has been drained is zero, and the gravity tank check valve opens as soon as the pressure at that point from the pressure tank drops below the static head from the gravity tank.

Air lock may be conveniently prevented in new equipment by connecting the gravity tank and pressure tank discharge pipes together 40 ft (12 m) or more below the bottom of the gravity tank (Figure 11.10).

NEW QUESTION: 52
Which Occupational Safety and Health Administration (OSHA) regulation addresses dip tanks containing flammable or combustible liquids?
A. 1910.110
B. 1910.108
C. 1910.120
D. 1910.107
Answer: B (LEAVE A REPLY)

NEW QUESTION: 53
Environmental Protection Agency standards require solid waste be treated as hazardous if it is a listed waste and/or meets the characteristics prescribed by the standard for toxicity, reactivity, corrosivity, and
A. solubility.
B. compactability.
C. lignitability.
D. treatability.
Answer: C (LEAVE A REPLY)
Explanation

Hazardous waste

Explore

The correct answer is C. Environmental Protection Agency (EPA) standards require solid waste be treated as hazardous if it is a listed waste and/or meets the characteristics prescribed by the standard for toxicity, reactivity, corrosivity, andignitability.A listed waste is a waste that appears on one of the four lists of hazardous wastes in the Code ofFederal Regulations (CFR) part 261 subpart D1.A characteristic waste is a waste that exhibits one or more of the following traits: toxicity, reactivity, corrosivity, or ignitability2.

Toxicity is the ability of a waste to leach harmful chemicals into the environment. Reactivity is the tendency of a waste to undergo violent chemical reactions or generate toxic gases. Corrosivity is the property of a waste to corrode metals or damage living tissues.Ignitability is the capacity of a waste to catch fire under certain conditions2.These characteristics are defined by specific tests and criteria in the CFR part 261 subpart C3.The EPA standards for hazardous waste are based on the Resource Conservation and Recovery Act (RCRA), which is the federal law that regulates the management of solid and hazardous waste in the United States4.

NEW QUESTION: 54

Which pure metal in its solid form in oxygen has the highest ignition temperature in degrees Fahrenheit?

A. Aluminum

B. Potassium

C. Titanium

D. Zirconium

Answer: (SHOW ANSWER)

Explanation

According to the web search results, titanium is the pure metal in its solid form in oxygen that has the highest ignition temperature in degrees Fahrenheit.The spontaneous-ignition temperature of titanium in the solid phase (below melting) is about 3020°F (1660°C)1.Aluminum, potassium, and zirconium have lower ignition temperatures in the solid phase, ranging from 1292°F (700°C) to 1652°F (900°C)23.References:

IGNITION OF METALS IN HIGH PRESSURE OXYGEN2
Combustion of Metals in Oxygen-Enriched Atmospheres3
High-temperature oxidation and ignition of metals1

NEW QUESTION: 55
At what temperature do cellulose nitrate products begin to decompose?
A. 581° F (305° C)
B. 425° F (218° C)
C. 350° F (177° C)
D. 300° F (150° C)
Answer: (SHOW ANSWER)
Explanation
Cellulose nitrate products begin to decompose at about 300 °F (150 °C). This is the temperature at which the nitrate ester bonds start to break down and release nitric acid, which further catalyzes the decomposition. The decomposition temperature depends on the nitrogen content, the stabilizers, and the external heating rate of the cellulose nitrate. Higher nitrogen content, lower stabilizer concentration, and faster heating rate lower the decomposition temperature and increase the risk of thermal runaway.
References:Nitrocellulose - Wikipedia;Comparative analysis of stable decomposition and combustion kinetics of nitrated cellulose;Degradation of aged nitrocellulose investigated by thermal analysis methods;Nitrocellulose;Effect of stabilizers and nitrogen content on thermal properties of nitrocellulose

NEW QUESTION: 56
For me international System (SI) or temperature units, the scientific temperature measurement is_____.
A. Kelvin
B. Celsius
C. Fehrenheit
D. Rankine
Answer: A (LEAVE A REPLY)

NEW QUESTION: 57
As a type of automatic fire detection device, heat detectors are the:
A. least reliable
B. newest
C. oldest
D. most reliable
Answer: B (LEAVE A REPLY)

NEW QUESTION: 58

What is the maximum allowable quantity per control area for a nonliquified oxidizing gas stored in a gas cabinet in an unsprinklered area?

A. 1000 ft3 (28 m3)

B. 1500 ft3 (43 m3)

C. 2000 ft3 (56 m3)

D. 3000 ft3 (85 m3)

Answer: C (LEAVE A REPLY)

According to NFPA 400, Table 5.2.1.1.3, the maximum allowable quantity (MAQ) of a nonliquified oxidizing gas per control area in an unsprinklered area is 2000 ft3 (56 m3) when stored in a gas cabinet. This quantity can be increased by 100% if the area is sprinklered or by 300% if the area is also provided with a gas detection system. A gas cabinet is a ventilated enclosure for the storage of one or more compressed gas containers that provides a method of control for potential leakage or fire exposure hazards [NFPA 400, 3.3.32].

Reference: NFPA 400, Table 5.2.1.1.3; NFPA 400, 3.3.32; NFPA 400, 5.2.1.1.3.1; NFPA 400, 5.2.1.1.3.2.

NEW QUESTION: 59

All of the following Road Tunnel fire model types are used EXCEPT

A. field models.

B. zone models.

C. one-dimensional models.

D. two-dimensional models.

Answer: D (LEAVE A REPLY)

Explanation

Two-dimensional models are not a common type of road tunnel fire models. Most road tunnel fire models are either one-dimensional, zone, or field models. One-dimensional models use a simplified approach to describe the fire and smoke behavior along the tunnel axis, assuming uniform conditions across the tunnel cross-section. Zone models divide the tunnel into two or more zones, each with uniform properties, and apply mass and energy conservation equations to each zone. Field models use computational fluid dynamics (CFD) to solve the governing equations for mass, momentum, energy, and species transport in a three-dimensional grid, capturing the spatial and temporal variations of the fire and smoke phenomena. Two-dimensional models are rarely used for road tunnel fire simulations, as they cannot account for the complex three-dimensional effects of fire and ventilation in tunnels.

References:Design Fires in Road Tunnels | The National Academies Press;CFD Modelling of Fire Ventilation in Road Tunnels - Academia.edu;Findings of the International Road Tunnel Fire Detection Research ...1

NEW QUESTION: 60

Which type of heat detector automatically resets after operation, when the ambient temperature drops below the operating temperature?

A. Electronic spot-type

B. Rate compensation

C. Rate-of-Rise

D. Ionization

Answer: C (LEAVE A REPLY)

NEW QUESTION: 61

What is the essential first requirement of an initial postfire evaluation?

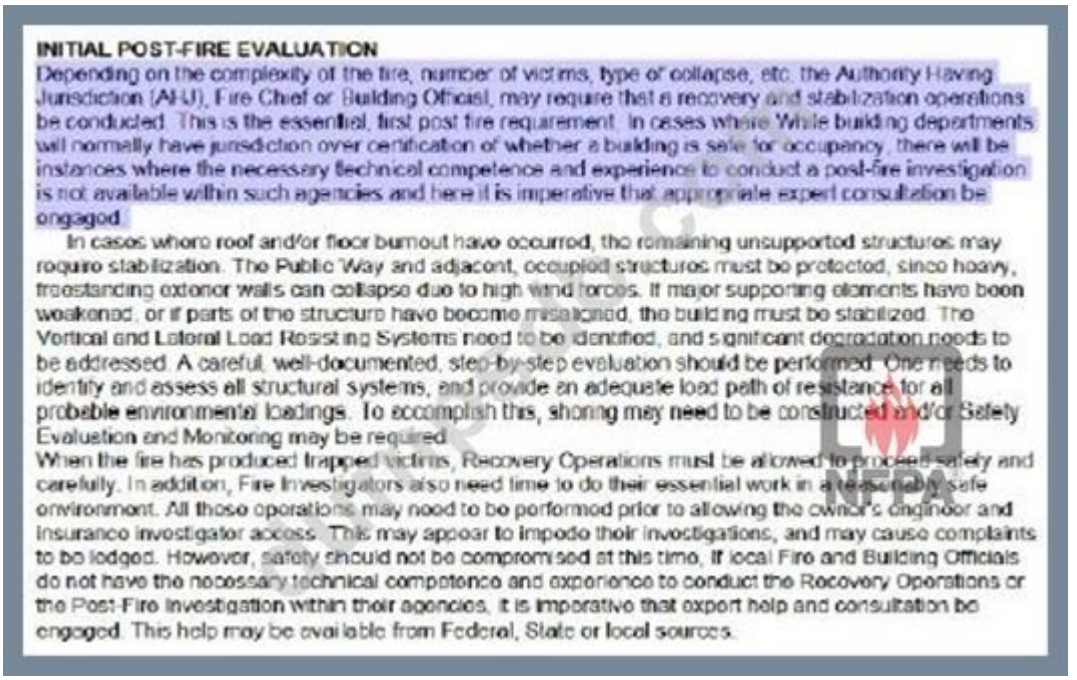
A. Salvage and overhaul

B. Cause and origin determination

C. Recovery and stabilization

D. Board up and secure

Answer: D (LEAVE A REPLY)



INITIAL POST-FIRE EVALUATION

Depending on the complexity of the fire, number of victims, type of collapse, etc. the Authority Having Jurisdiction (AHJ), Fire Chief or Building Official, may require that a recovery and stabilization operations be conducted. This is the essential, first post fire requirement. In cases where While building departments will normally have jurisdiction over certification of whether a building is safe for occupancy, there will be instances where the necessary technical competence and experience to conduct a post-fire investigation is not available within such agencies and here it is imperative that appropriate expert consultation be engaged.

In cases where roof and/or floor burnout have occurred, the remaining unsupported structures may require stabilization. The Public Way and adjacent, occupied structures must be protected, since heavy, freestanding exterior walls can collapse due to high wind forces. If major supporting elements have been weakened, or if parts of the structure have become misaligned, the building must be stabilized. The Vertical and Lateral Load Resisting Systems need to be identified, and significant degradation needs to be addressed. A careful, well-documented, step-by-step evaluation should be performed. One needs to identify and assess all structural systems, and provide an adequate load path of resistance for all probable environmental loadings. To accomplish this, shoring may need to be constructed and/or Safety Evaluation and Monitoring may be required.

When the fire has produced trapped victims, Recovery Operations must be allowed to proceed safely and carefully. In addition, Fire Investigators also need time to do their essential work in a reasonably safe environment. All those operations may need to be performed prior to allowing the owner's engineer and insurance investigator access. This may appear to impede their investigations, and may cause complaints to be lodged. However, safety should not be compromised at this time. If local Fire and Building Officials do not have the necessary technical competence and experience to conduct the Recovery Operations or the Post-Fire Investigation within their agencies, it is imperative that expert help and consultation be engaged. This help may be available from Federal, State or local sources.

NEW QUESTION: 62

What type of process hazard analysis program addresses the prevention of flammable and hazardous materials released from containment?

A. Fault tree

B. Process safety

C. Management of change

D. Mechanical integrity

Answer: B (LEAVE A REPLY)

Explanation

Process safety is the type of process hazard analysis program that addresses the prevention of flammable and hazardous materials released from containment. Process safety is a discipline that focuses on the prevention and control of incidents that have the potentialto cause catastrophic consequences involving fire, explosion, or toxic release. Process safety involves the application of engineering and management principles, criteria, and techniques to identify, understand, and control process hazards. Process safety covers many aspects of a process, such as design, operation, maintenance, inspection, testing, and emergency response.

References: Process hazard analysis - Wikipedia1; What does the OSHA standard, - Occupational Safety and Health Administration2; Fire Protection Handbook, 20th Edition, Volume 1, Chapter 8, Section 8.3.13.

NEW QUESTION: 63

How often must a smoke detector connected to a fire alarm panel be visually inspected?

A. Quarterly

B. Monthly

C. Semiannually

D. Annually

Answer: B (LEAVE A REPLY)

NEW QUESTION: 64

What type of smoke management method has been used extensively to manage smoke from fires in subway, railroad, and highway tunnels?

A. Dilution

B. Compartmentation

C. Airflow

D. Pressurization

Answer: C (LEAVE A REPLY)

www.gordonprill.net/documents-online/.../IFB%209-29-15/.../4VOL_ApCH51.pdf

NEW QUESTION: 65

Typical fire pump drivers reach maximum brake horsepower between

A. 65-85% of rated capacity.

B. 90-100% of rated capacity.
C. 110-125% of rated capacity.
D. 140-170% of rated capacity.
Answer: D (LEAVE A REPLY)

Explore
Typical fire pump drivers reach maximum brake horsepower (BHP) between 140% and 170% of rated capacity, depending on the type and size of the pump. This means that the driver must be able to provide enough power to operate the pump at its peak efficiency point, which is usually beyond the rated capacity. The rated capacity is the flow rate at which the pump is designed to deliver a certain pressure, as specified by NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection. The maximum BHP is the highest power output required by the pump at any point on its performance curve. The driver must be sized to match the maximum BHP of the pump, with some allowance for service factor and safety margin. Reference: Understanding the Basics of Fire Pumps | Pumps & Systems; How are Engines and Motors Sized for Fire Pumps?; NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection, 2023 Edition, Chapter 4, Section 4.7.

NEW QUESTION: 66
What are the minimum secondary power supply requirements for a protected premises system?
A. 24 hours of standby power followed by 1 hour of emergency operation
B. 24 hours of standby power followed by 15 minutes at maximum connected load
C. 24 hours of standby power followed by 5 minutes of alarm
D. 24 hours of standby power followed by 2 hours of emergency operation
Answer: (SHOW ANSWER)

NEW QUESTION: 67
In compliance enforcement procedures, a permit authorizes the performance of a specify activity, while which of the following grants permission to conduct or engage in any operation or act for which a level of approval is required?
A. Authorization

B. Certificate
C. License
D. Warrant
Answer: (SHOW ANSWER)

NEW QUESTION: 68
If smallpox was eradicated from the world in 1980, why is it a threat today?
A. It was premature to declare eradication in 1980.
B. It has a spore form that can lie dormant for a decade or more.
C. It was not eradicated; rather everyone was either immune or vaccinated.
D. Some countries kept samples of it alive.
Answer: (SHOW ANSWER)

NEW QUESTION: 69
Non-fire alarm interface signals connected to a fire alarm system are:
A. considered supervisory for other than life safety equipment
B. connected to air handling units
C. used for monitoring fire sprinklers
D. required to automatically notify the fire department
Answer: (SHOW ANSWER)

NEW QUESTION: 70
The three categories of potentially dangerous crowd situations for management are:
A. combative, reluctant, and leaderless group
B. critical flow, restricted flow, and directed flow
C. critical occupancy, flight response, and craze
D. agitated, combative, and excessive occupancy
Answer: A (LEAVE A REPLY)

NEW QUESTION: 71
What kind of agent is anthrax?
A. Blood agent
B. Chemical asphyxiant
C. Infectious disease
D. Neurotransmitter
Answer: (SHOW ANSWER)

NEW QUESTION: 72
How long must an emergency voice alarm communications system be capable of operating at maximum connected load (an input devices and output appliances operating) after a 24-hour standby period?

A. 15 minutes
B. 45 minutes
C. 60 minutes
D. 30 minutes
Answer: A (LEAVE A REPLY)

NEW QUESTION: 73
You are investigating a fire in a church, historically speaking, from the data available in the Fire Protection Handbook, what is the leading cause of church structure fires in the U.S.?
A. Smoking materials
B. Heating and HVAC equipment
C. Cooking equipment
D. Incendiary or suspicious
Answer: C (LEAVE A REPLY)
https://nfa.usfa.fema.gov/downloads/pdf/statistics/v2i7-508.pdf

NEW QUESTION: 74
Panic hardware devices are designed to facilitate the release of the latching device on a door with a pressure note xceeding
A. 5 pounds (2.3 kg.) is applied in the direction of exit travel.
B. 10 pounds (4.5 kg.) is applied in the direction of exit travel.
C. 15 pounds (6.8 kg.) is applied in the direction of exit travel.
D. 20 pounds (9.1 kg.) is applied in the direction of exit travel.
Answer: C (LEAVE A REPLY)
Explanation
Panic hardware devices are designed to facilitate the release of the latching device on a door with a pressure not exceeding 15 pounds (6.8 kg.) is applied in the direction of exit travel. This is the maximum force allowed by the codes and standards that regulate the use and installation of panic hardware, such as NFPA 101, NFPA
80, and ANSI/BHMA A156.3. The purpose of this requirement is to ensure that the doors can be easily opened by anyone in an emergency situation, without prior knowledge or special effort.References:Codes to Know for Panic Hardware - Facilitiesnet;Panic and emergency escape hardware | ASSA ABLOY | ASSA ABLOY; NFPA 101, Life Safety Code, 2023 Edition, Chapter 7, Section 7.2.1.7.2; NFPA 80, Standard for Fire Doors and Other Opening Protectives, 2023 Edition, Chapter 6, Section 6.1.3.5.1; ANSI/BHMA A156.3, Standard for Exit Devices, 2014 Edition, Section 4.1.1.

NEW QUESTION: 75
How many additional switches or circuit breakers are allowed for a separate service?
A. 9
B. 8

C. 7
D. 6
Answer: D (LEAVE A REPLY)
According to NFPA 70: National Electrical Code (NEC) 2020 Edition, Article 230.71(A), each service shall have only one disconnecting means unless the requirements of 230.71(B) are met, which provide four specific service configurations. In each configuration, there shall be not more than six switches or sets of circuit breakers, or a combination of not more than six switches and sets of circuit breakers, per service grouped in any one location. Therefore, the maximum number of additional switches or circuit breakers allowed for a separate service is six. Reference:
NFPA 70: National Electrical Code (NEC) 2020 Edition, Article 230.71(A) and (B) 12 ElectricalLicenseRenewal.com, 230.71 Maximum Number of Disconnects 3

NEW QUESTION: 76
How many anthrax spores are needed to cause an anthrax infection?
A. 2000 to 4000
B. 1 to 10
C. 8000 to 10,000
D. 100 to 1000
Answer: C (LEAVE A REPLY)

NEW QUESTION: 77
In an area used for sleeping, the minimum Sound Pressure Level (SPL) required of the fire alarm system is:
A. 80 dBA
B. 65 dBA
C. 70 dBA
D. 75 dBA
Answer: A (LEAVE A REPLY)

NEW QUESTION: 78
Manufactured homes must be constructed in accordance with which of the following codes?

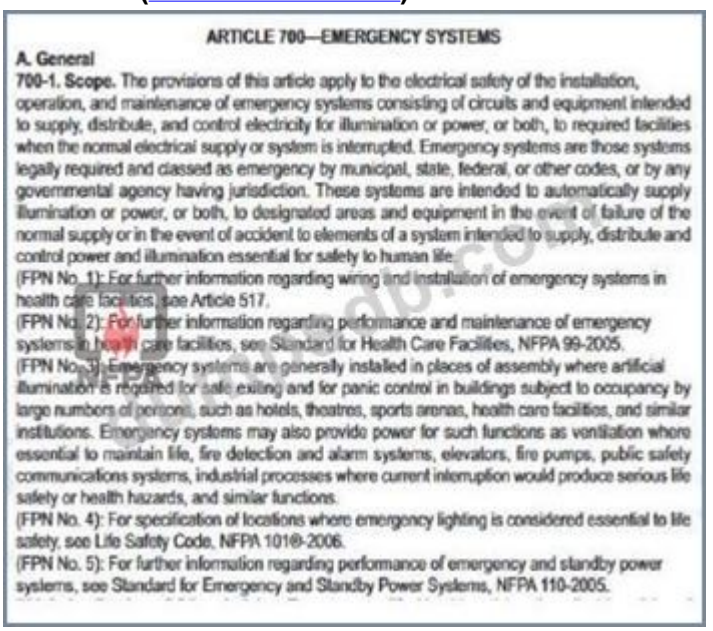
A. Manufactured Home Building Code
B. Life Safety Code
C. Federal HUD Code
D. Mobile Home Safety Code
Answer: A (LEAVE A REPLY)

NEW QUESTION: 79
The greatest number of civilian home fire deaths can be attributed to what area of fire origin in the home?
A. Kitchen or cooking area
B. Heating equipment room
C. Garage or vehicle storage area
D. Common room, living room
Answer: D (LEAVE A REPLY)
Explanation
The correct answer is D. The greatest number of civilian home fire deaths can be attributed to the common room, living room, or family room area of origin in the home. According to a report by the NFPA, based on data from the National Fire Incident Reporting System (NFIRS) and NFPA's fire experience survey, 31 percent of the civilian home fire deaths in 2017-2021 occurred in fires that started in the common room, living room, or family room. This was followed by 29 percent of the deaths in fires that started in the bedroom or sleeping area, and 12 percent of the deaths in fires that started in the kitchen or cooking area. The common room, living room, or family room area of origin is also the leading area of origin for home fires and civilian home fire injuries, accounting for 24 percent and 21 percent of those incidents, respectively. Some of the common causes of fires in the common room, living room, or family room include smoking materials, heating equipment, electrical equipment, candles, and fireplaces. To prevent fires and fire deaths in the common room, living room, or family room, the NFPA recommends the following safety tips:
Keep smoking materials away from anything that can burn. Use deep, sturdy ashtrays and wet cigarette butts before discarding them.
Keep space heaters at least 3 feet away from anything that can burn. Turn them off when you leave the room or go to sleep.
Have a qualified electrician inspect and repair any faulty wiring or outlets. Avoid overloading circuits or extension cords. Unplug appliances when not in use.
Keep candles in sturdy holders and away from children, pets, and anything that can burn. Blow them out when you leave the room or go to sleep.
Have your chimney and fireplace cleaned and inspected annually by a professional. Use a metal or glass screen to keep sparks from flying out. Dispose ofashes in a metal container with a lid, and keep it outside at least 10 feet away from your home.
Install smoke alarms on every level of your home, inside each bedroom, and outside each sleeping area.

Test them monthly and replace the batteries at least once a year. Consider installing a home fire sprinkler system for added protection.

NEW QUESTION: 80
What kit did the U.S. military develop as an antidote to nerve agent exposure?
A. Pam-2
B. Mark 1
C. Physostygmine
D. P-tab
Answer: (SHOW ANSWER)

NEW QUESTION: 81
Requirements for the installation, operation, and maintenance of electrical emergency system circuits and equipment are given in the National Electrical Code (NEC).
A. Article 600
B. Article 800
C. Article 500
D. Article 700
Answer: (SHOW ANSWER)



ARTICLE 700—EMERGENCY SYSTEMS

A. General

700-1. Scope. The provisions of this article apply to the electrical safety of the installation, operation, and maintenance of emergency systems consisting of circuits and equipment intended to supply, distribute, and control electricity for illumination or power, or both, to required facilities when the normal electrical supply or system is interrupted. Emergency systems are those systems legally required and classed as emergency by municipal, state, federal, or other codes, or by any governmental agency having jurisdiction. These systems are intended to automatically supply illumination or power, or both, to designated areas and equipment in the event of failure of the normal supply or in the event of accident to elements of a system intended to supply, distribute and control power and illumination essential for safety to human life.

(FPN No. 1): For further information regarding wiring and installation of emergency systems in health care facilities, see Article 517.

(FPN No. 2): For further information regarding performance and maintenance of emergency systems in health care facilities, see Standard for Health Care Facilities, NFPA 99-2005.

(FPN No. 3): Emergency systems are generally installed in places of assembly where artificial illumination is required for safe exiting and for panic control in buildings subject to occupancy by large numbers of persons, such as hotels, theatres, sports arenas, health care facilities, and similar institutions. Emergency systems may also provide power for such functions as ventilation where essential to maintain life, fire detection and alarm systems, elevators, fire pumps, public safety communications systems, industrial processes where current interruption would produce serious life safety or health hazards, and similar functions.

(FPN No. 4): For specification of locations where emergency lighting is considered essential to life safety, see Life Safety Code, NFPA 101®-2006.

(FPN No. 5): For further information regarding performance of emergency and standby power systems, see Standard for Emergency and Standby Power Systems, NFPA 110-2005.

NEW QUESTION: 82
A public supply system with a required fire flow of 4,500 gpm (17,033 lpm) should be able to maintain that flow for a duration of:
A. three hours
B. two hours
C. four hours
D. five hours
Answer: A (LEAVE A REPLY)

NEW QUESTION: 83
Critical Radiant Flux is used to classify
A. roofing materials.
B. interior wall finishes.
C. interior floor finishes.
D. exterior materials.
Answer: C (LEAVE A REPLY)
Explanation
Critical radiant flux is used to classifyinterior floor finishes. Critical radiant flux is a measure of the minimum radiant heat energy required to sustain flame propagation on a floor material or covering. It is determined by exposing a specimen to a radiant heat gradient and observing the distance from the ignition point to the flame-out point.The shorter the distance, the higher the critical radiant flux and the better the fire performance of the floor material or covering1.Critical radiant flux is used to classify floor materials and coverings according to their fire hazard and resistance, and to specify the minimum requirements for different occupancies and applications2.For example, the International Building Code (IBC) requires that interior floor finishes and coverings in exit access corridors and exit enclosures have a critical radiant flux of not less than
0.45 W/cm2, while those in other spaces have a critical radiant flux of not less than 0.22 W/cm23.Critical radiant flux is also used to evaluate the fire safety of floor materials and coverings in transportation vehicles, such as aircraft, trains, and buses4.

NEW QUESTION: 84
Which of the following materials and products of incomplete combustion can produce carbon monoxide (CO) gas in lethal concentrations?
A. Gas fuel only
B. Solid fuels only
C. Solid, liquid, or gas
D. Liquids fuels only
Answer: C (LEAVE A REPLY)

NEW QUESTION: 85
Power for driving fire pumps is selected on the basis of reliability, adequacy, economy, and
A. efficiency.
B. safety.
C. adaptability.
D. ecology.
Answer: B (LEAVE A REPLY)
Explanation

Fire pump

Explore

The correct answer is B.Safety is one of the criteria for selecting the power source for driving fire pumps, according to NFPA 20, Chapter 9.1.1.11. Reliability, adequacy, and economy are the other criteria mentioned in the same chapter. Efficiency, adaptability, and ecology are not explicitly stated as criteria in NFPA 20, although they may be considered as secondary factors in some cases.

1:Pump Installation: Everything About Electric and Diesel Driven Fire ...

NEW QUESTION: 86

A building containing three or more dwelling units, with separate cooking facilities for individual occupants is what type of occupancy?

A. Lodging and rooming

B. Dormitory

C. Apartment

D. Hotel

Answer: (SHOW ANSWER)

NEW QUESTION: 87

The total head of a fire pump is:

A. the static pressure of water at the intake of the pump

B. the energy imparted to the liquid as it passes through the orifice

C. psi rating as the liquid passes through the pipe

D. the energy imparted to the liquid as it passes through the pump

Answer: D (LEAVE A REPLY)

NEW QUESTION: 88

Which of the following is a classification of gases from NFPA 55?

A. Low vapor

B. Colorless

C. Oxidizing

D. High vapor

Answer: (SHOW ANSWER)

NEW QUESTION: 89
What class designation is given to a standpipe system consisting of a 2 . inch (6.35 cm) hose valve specifically for fire department use and a 1 . inch (3.81 cm) hose valve complete with hose and nozzles for building occupant use?
A. Class I
B. Class III
C. Class II
D. Class IV
Answer: D (LEAVE A REPLY)

NEW QUESTION: 90
Under what circumstances are alpha particles the most harmful to the human body?
A. When the victim has no shielding other than clothing
B. When they are ingested or inhaled
C. When the emanating source is wet
D. When the skin is wet
Answer: B (LEAVE A REPLY)

NEW QUESTION: 91
What is the leading cause of home fires?
A. Smoking
B. Heating equipment
C. Electrical
D. Cooking
Answer: D (LEAVE A REPLY)

NEW QUESTION: 92
The vented gas appliance defined as an appliance that operates with a nonpositive vent pressure and a vent static pressure and a vent gas temperature that may cause excessive condensation in the vent is a:
A. Category II

B. Category I
C. Category III
D. Category IV
Answer: B (LEAVE A REPLY)

NEW QUESTION: 93
In a large-scale test organized by the Fire Protection Research Foundation (FPRF) to study the interaction between sprinklers, roof vents, and draft curtains, what factor made the test results difficult to interpret for use in field applications?
A. External environmental forces on the test building
B. The number of vents used during the tests
C. The use of an exhaust to an abatement system
D. The controlled nature of the tests
Answer: C (LEAVE A REPLY)
Explanation
The use of an exhaust to an abatement system during the large-scale tests made the test results difficult to interpret for use in field applications. The exhaust system was used to reduce the environmental impact of the tests, but it also altered the natural buoyancy-driven flow of the smoke and heat through the vents and draft curtains. This created a pressure difference between the inside and outside of the test building, which affected the performance of the sprinklers, vents, and draft curtains. Therefore, the test results may not accurately reflect the conditions that would occur in real buildings without an exhaust system.
References: Fire Protection Handbook, 20th Edition, Volume 1, Chapter 8, Section 8.3.11; Sprinkler, Smoke and Heat Vent, Draft Curtain Interaction: Large Scale Experiments and Modeling2.

NEW QUESTION: 94
Which of the following best describes the reason many issues in building codes and other for the built environment have historically been addresses?
A. Major incidents
B. Number of fires
C. Rate of Fires
D. Risk values
Answer: A (LEAVE A REPLY)

NEW QUESTION: 95
Which of the following would NOT be an appropriate purpose for employing a guard service to protect a property against fire loss?
A. To protect the property at times when the management is not present
B. To carry out procedures for the orderly conduct of some operations on the property

C. To perform routine housekeeping and equipment maintenance operations during nonproduction hours
D. To facilitate and control the movement of persons into, out of, and within the property
Answer: (SHOW ANSWER)
The correct answer is C. To perform routine housekeeping and equipment maintenance operations during nonproduction hours would NOT be an appropriate purpose for employing a guard service to protect a property against fire loss. A guard service is typically hired to provide security and protection for a property, not to perform other tasks that are unrelated to fire prevention or control. Housekeeping and equipment maintenance operations should be done by qualified and authorized personnel who are trained and equipped to handle any potential fire hazards. A guard service may not have the necessary skills, tools, or authority to perform these operations safely and effectively. Moreover, these operations may interfere with the guard service's primary duty of monitoring and patrolling the property for any signs of fire or intrusion12345

NEW QUESTION: 96
A building containing 16 or more persons who are not related to each other, with sleeping facility for individual occupants is what type of occupancy?
A. Lodging and rooming
B. Apartment
C. Dormitory
D. Hotel
Answer: D (LEAVE A REPLY)
Dormitory:
Single or multistory structures containing three or more independent dwelling units with cooking and bathroom facilities in each. (Apartments that are greater than 7 stories may be considered as high-rises and may require greater fire and life safety protection.

NEW QUESTION: 97
What temperature measurement device consists of a pair of wires of different metals or alloys welded together at a point to form a junction to compare the voltage magnitude compared with a compensating junction at 0°C and the voltage difference calibrated to give the temperature in degrees?
A. Liquid Expansion Thermometer
B. Bimetallic Thermometer
C. Thermocouple
D. Pyrometer
Answer: C (LEAVE A REPLY)
Explanation
The correct answer is C. A thermocouple is a temperature measurement device that consists of a pair of wires of different metals or alloys welded together at a point to form a

junction. The junction is exposed to the temperature to be measured, while the other end of the wires is connected to a reference junction at 0°C. The thermocouple produces a voltage difference between the two junctions that depends on the temperature difference.This voltage difference can be calibrated to give the temperature in degrees using a thermocouple table or a formula123

NEW QUESTION: 98
Response Time Index (RTI) is a value applicable to
A. Amount of time required for water to reach the most remote sprinkler.
B. Measure of thermal sensitivity of the air evacuation device of a dry pipe sprinkler system.
C. Measure of thermal sensitivity of a sprinkler's activation.
D. Measure of thermal sensitivity of a wet pipe sprinkler system's alarm device.
Answer: C (LEAVE A REPLY)
Response Time Index (RTI) is a measure of thermal sensitivity of a sprinkler's activation. It indicates how quickly the sprinkler responds to the heat from a fire. RTI is calculated by using the operating time, operating temperature, air temperature, air velocity, and conductivity factor of the sprinkler. RTI is independent of the gas velocity but depends on the properties of the sprinkler head such as mass, specific heat capacity and surface area of the thermal sensing element. RTI is used to classify sprinklers into fast response or standard response categories.

NEW QUESTION: 99
A stoichiometric mixture results in the consumption of all:
A. fuel and oxygen
B. energy and heat
C. gas and radiation
D. smoke and flame
Answer: A (LEAVE A REPLY)
In theory a stoichiometric mixture has just enough air to completely burn the available fuel. In practice this is never quite achieved, due primarily to the very short time available in an internal combustion engine for each combustion cycle. Most of the combustion process completes in approximately 4 V5 milliseconds at an engine speed of 6,000 rpm.
(100 revolutions per
second; 10 milliseconds per revolution) This is the time that elapses from when the spark is fired until the burning of the fuel V air mix is essentially complete after some 80 degrees of crankshaft rotation. Catalytic converters are designed to work best when the exhaust gases passing through them are the result of nearly perfect combustion.
A stoichiometric mixture unfortunately burns very hot and can damage engine components if the engine is placed under high load at this fuel Vair mixture. Due to the high temperatures at this mixture, detonation of the fuel Vair mix shortly after maximum cylinder pressure is possible under high load (referred to as knocking or pinging). Detonation can cause serious

engine damage as the uncontrolled burning of the fuel air mix can create very high pressures in the cylinder. As a consequence, stoichiometric mixtures are only used under light load conditions. For acceleration and high load conditions, a richer mixture (lower air Vfuel ratio) is used to produce cooler combustion products and thereby prevent detonation and overheating of the cylinder head.

NEW QUESTION: 100
What is the maximum allowable sound pressure level (SPL) for a fire alarm system?
A. 30 dBA
B. 50 dBA
C. 100 dBA
D. 130 dBA
Answer: C (LEAVE A REPLY)
Explanation
According to NFPA 72, the maximum sound pressure level (SPL) for a fire alarm system is 110 dBA at the minimum hearing distance from the audible appliance1.However, this limit can be exceeded if the sound pressure level measured 2 000 mm above floor level is not more than 100 dBA2. Sound pressure level is a measure of the intensity of sound at a given point in space, expressed in decibels (dB). The higher the SPL, the louder the sound.For comparison, a normal conversation is about 60 dB, a jet engine is about 140 dB, and a gunshot is about 160 dB3.References:Sound Pressure Levels - NFPA;NFPA fire alarm sound level - EntirelySafe.com;Subsection 907.5 - Occupantnotification systems - Casetext;How Loud Is a Fire Alarm In Decibels (dB)? With Noise Comparison Chart;The Ontario Building Code | Audibility of Alarm Systems.

NEW QUESTION: 101
The fuel storage tank for a diesel driven fire pump should be sized to contain a supply for at least:
A. 12 hours of operations
B. 24 hours of operations
C. 8 hours of operations
D. 6 hours of operations
Answer: B (LEAVE A REPLY)

Each refill valve shall be sized and arranged to independently supply the system fire protection demand refill the tank in a maximum time of 8 hours.

Submitter Information Verification

Submitter Full Name: [Not Specified]
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Street Address:
City:
State:
Zip:
Submittal Date: Wed Oct 02 13:05:48 EDT 2013

Committee Statement

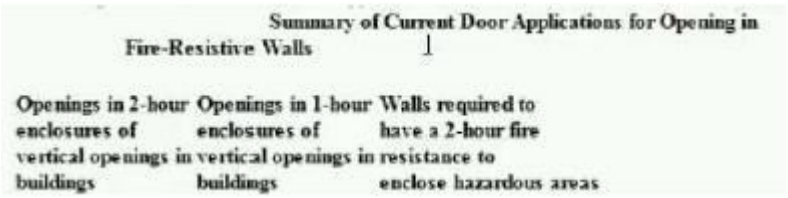
Committee Statement: The current requirement to supply the system demand is very impractical and it is excessive. This water supply requirement, calls for the refilling a water storage tank as quickly as the water would be used during a fire. This defeats the whole purpose of installing a water storage/suction tank, as the reason for using one, (with a volume equal to the fire protection demand), would be because of the difficulty in getting a sufficient water flow rate up to those high elevations. As per NFPA 14, the "system demand" is the "flow rate and residual pressure required ...". Therefore, in a fully sprinklered building, with three or more risers, the required standpipe system flow rate would be 1000 gpm, so NFPA 20 is mandating a 1000 gpm water refill rate. If the water supply was sufficient to supply a demand such as that, there would be no need for a water storage/pump suction tank. Instead, a fire pump could just be connected in series to the fill lines. If it is within their scope [which seems doubtful], and the committee believes that the refill time for very tall buildings must be less than the 8 hours allowed by NFPA 22, they should determine a minimum time. Alternately, if the committee would like a minimum pipe size for the fill lines, they should determine the minimum size. However a storage tank refill rate should not be expected to be as excessively large as the "system fire protectio

NEW QUESTION: 102
Which of the following would NOT be an appropriate purpose for employing a guard service to protect a property against fire loss?
A. To protect the property at times when the management is not present
B. To carry out procedures for the orderly conduct of some operations on the property
C. To perform routine housekeeping and equipment maintenance operations during nonproduction hours
D. To facilitate and control the movement of persons into, out of, and within the property
Answer: C (LEAVE A REPLY)
Explanation
The correct answer is C. To perform routine housekeeping and equipment maintenance operations during nonproduction hours would NOT be an appropriate purpose for employing a guard service to protect a property against fire loss. A guard service is typically hired to provide security and protection for a property, not to perform other tasks that are unrelated to fire prevention or control. Housekeeping and equipment maintenance operations should be done by qualified and authorized personnel who are trained and equipped to handle any potential fire hazards. A guard service may not have the necessary skills, tools, or authority to perform these operations safely and effectively.Moreover, these operations may interfere

with the guard service's primary duty of monitoring and patrolling the property for any signs of fire or intrusion12345

NEW QUESTION: 103
Along with access security utilities and exposures, what other site consideration comes into play when developing a pre-incident plan?
A. Environment
B. Vegetation
C. Parked vehicles
D. Water supply
Answer: (SHOW ANSWER)

NEW QUESTION: 104
From the following summaries for current door applications, select the correct fire door classifications:


Summary of Current Door Applications for Opening in Fire-Resistive Walls

Openings in 2-hour enclosures of vertical openings in buildings	Openings in 1-hour enclosures of vertical openings in buildings	Walls required to have a 2-hour fire resistance to enclose hazardous areas

A. 2-hour fire doors 1-hour fire doors 2-hour fire doors
B. 1 . - hour fire doors 1-hour fire doors 1 . - hour fire doors
C. 2-hour fire doors . - hour fire doors 1 . - hour fire doors
D. 1 . - hour fire doors 1-hour fire doors 2-hour fire doors
Answer: A (LEAVE A REPLY)

NEW QUESTION: 105
Heat transfer oils can be used up to
A. 600° F (315° C).
B. 650° F(343° C).
C. 700° F (371° C).
D. 750° F (399C).
Answer: (SHOW ANSWER)
. 650° F(343° C).
Heat transfer oils are fluids that are used to transfer heat from one source to another in various industrial applications, such as chemical processing, oil refining, power generation, and food processing. Heat transfer oils can be classified into two types: mineral oils and synthetic oils. Mineral oils are derived from petroleum and have a lower cost and a lower flash point than synthetic oils. Synthetic oils are made from organic or silicone compounds and have a higher thermal stability and a higher flash point than mineral oils1 The maximum temperature that heat transfer oils can be used up to depends on the type and quality of the oil, as well as the design and operation of the heat transfer system. Different oils have

different boiling points, viscosity, thermal conductivity, and thermal degradation rates. Generally, synthetic oils can withstand higher temperatures than mineral oils, but they are also more expensive and may require special handling and storage1 According to the web search results, the maximum temperature that heat transfer oils can be used up to ranges from 300°C to 400°C (572°F to 752°F), depending on the specific product and manufacturer. For example, the product brochure from Kluber Lubrication states that their heat transfer oils have an application range of operating temperatures up to 550°F (288°C) 2. The product data sheet from Sinopec states that their heat transfer oils can be used up to 540°F (282°C) 3. The product information from Paratherm states that their high temperature heat transfer fluids have service temperatures of 3°C to 357°C (37°F to 675°F) 4. Therefore, based on these sources, the closest answer to the question is B. 650 F(343 C). However, it is important to note that the maximum temperature that heat transfer oils can be used up to may vary depending on the specific conditions and requirements of each application.
Reference:
Heat Transfer Fluids - A Comparison of Types 1
High-temperature heat transfer fluids - Dow 5
Heat Transfer Oils - klueber.com 2
Heat Transfer Oil Suppliers | Heat Transfer Oils include low ... 3
High Temperature Heat Transfer Fluids | Paratherm 4

NEW QUESTION: 106
Which type of roof covering is most effective in preventing the spread of fires from flying brands?
A. Class A
B. Class B
C. Class C
D. Class D
Answer: (SHOW ANSWER)
Class A roof coverings are the most effective in preventing the spread of fires from flying brands. Flying brands are burning embers or pieces of combustible material that are carried by the wind and can ignite other combustible materials or structures. Class A roof coverings are tested to withstand severe fire exposure from simulated fire sources, such as large burning brands, and do not produce flying brands themselves. Class A roof coverings include materials such as asphalt shingles, metal sheets, clay or concrete tiles, slate, and some types of synthetic membranes12. Reference:
Class A, B, and C Roof Ratings - UL
Fire-Resistant Roofs - Fire Safe Marin

NEW QUESTION: 107
What type of smoke management method is referred to as smoke purging, smoke removal, smoke exhaust, or smoke extraction?
A. Dilution
B. Compartmentation
C. Airflow
D. Pressurization
Answer: C (LEAVE A REPLY)
Explanation
Smoke purging, smoke removal, smoke exhaust, or smoke extraction are different terms for the same type of smoke management method, which is airflow. Airflow is the method of controlling smoke by creating a flow of air that either pushes or pulls the smoke away from the desired areas. Airflow can be achieved by natural or mechanical means, such as vents, fans, or dampers. Airflow can also be used to create a smoke layer above the occupant level in large spaces, such as atriums or warehouses, by exhausting the hot smoke and supplying fresh air below the layer.References:Smoke Extraction System - NAFFCO Smoke Management;Post-Fire Smoke Purge Systems: When Are They Required? - NY Engineers; NFPA Fire Protection Handbook, 21st Edition, Chapter 9, Section 9.2.1.

NEW QUESTION: 108
Which of the following is contagious?
A. Smallpox
B. Bacillus
C. Bubonic plague
D. Anthrax
Answer: C (LEAVE A REPLY)

NEW QUESTION: 109
Wn.cn class of fire-retardant roof coverings are effective against light fire exposures, and afford at least a slight degree of fire protection to the root decks?
A. Class B coverings
B. Class D coverings
C. Class C coverings

D. Class A coverings
Answer: C (LEAVE A REPLY)

NEW QUESTION: 110
Which pure metal in its solid form in oxygen has the highest ignition temperature in degrees Fahrenheit?
A. Aluminum
B. Potassium
C. Titanium
D. Zirconium
Answer: C (LEAVE A REPLY)
titanium is the pure metal in its solid form in oxygen that has the highest ignition temperature in degrees Fahrenheit. The spontaneous-ignition temperature of titanium in the solid phase (below melting) is about 3020°F (1660°C) 1. Aluminum, potassium, and zirconium have lower ignition temperatures in the solid phase, ranging from 1292°F (700°C) to 1652°F (900°C) 23. Reference:
IGNITION OF METALS IN HIGH PRESSURE OXYGEN 2
Combustion of Metals in Oxygen-Enriched Atmospheres 3
High-temperature oxidation and ignition of metals 1

NEW QUESTION: 111
The most versatile oxygen consumption method for measuring heat release rate is:
A. an OSU Apparatus
B. a Cone Colorimeter
C. a Steiner Tunnel
D. a Fire propagation apparatus
Answer: (SHOW ANSWER)
www.ffrc.fi/FlameDays_2009/4B/LindholmPaper.pdf

NEW QUESTION: 112
For the purpose of measuring standard temperature and pressure, the standard temperature value is:
A. 65 X F
B. 77 X F
C. 85 X F
D. 93 X F
Answer: B (LEAVE A REPLY)

NEW QUESTION: 113
Factors influencing the explosibility of dusts include moisture, inert material, particle size, and:
A. container pressure
B. temperature
C. concentration
D. viscosity
Answer: A (LEAVE A REPLY)

NEW QUESTION: 114
Which of the following heat transfer values is relevant to fire protection because it defines the quantity of heat must be removed to cool a burning solid below its firepoint?
A. British thermal unit
B. Specific heat
C. Latent heat
D. Heat density
Answer: D (LEAVE A REPLY)
(Review)
Heat transfer
An understanding of heat (or energy) transfer is the key to an understanding of fire behaviour and fire processes. The subject deserves careful study. There are many excellent texts to which one may turn (Welty, Wilson and Wicks 1976; DiNenno 1988), but for the present purposes it is necessary only to draw attention to the three mechanisms: conduction, convection and radiation.
The basic equations for steady-state heat transfer ( ) are:
Conduction:
Convection:
Radiation:
Conduction is relevant to heat transfer through solids; (k is a material property known as thermal conductivity (kW/mK) and l is the distance (m) over which the temperature falls from T1 to T2 (in degrees Kelvin). Convection in this context refers to the transfer of heat from a fluid (in this case, air, flames or fire products) to a surface (solid or liquid); h is the convective heat transfer coefficient kW/m2K) and depends on the configuration of the surface and nature of the flow of fluid past that surface. Radiation is similar to visible light (but with a

longer wavelength) and requires no intervening medium (it can traverse a vacuum); £` is the emissivity (efficiency by which a surface can radiate), £m is the Stefan-Boltzman constant (56.7 x 10-12 kW/m2K4). Thermal radiation travels at the speed of light (3 x 108 m/s) and an intervening solid object will cast a shadow.

NEW QUESTION: 115
Critical Radiant Flux is used to classify
A. roofing materials.
B. interior wall finishes.
C. interior floor finishes.
D. exterior materials.
Answer: C (LEAVE A REPLY)
Critical radiant flux is used to classify interior floor finishes. Critical radiant flux is a measure of the minimum radiant heat energy required to sustain flame propagation on a floor material or covering. It is determined by exposing a specimen to a radiant heat gradient and observing the distance from the ignition point to the flame-out point. The shorter the distance, the higher the critical radiant flux and the better the fire performance of the floor material or covering1. Critical radiant flux is used to classify floor materials and coverings according to their fire hazard and resistance, and to specify the minimum requirements for different occupancies and applications2. For example, the International Building Code (IBC) requires that interior floor finishes and coverings in exit access corridors and exit enclosures have a critical radiant flux of not less than 0.45 W/cm2, while those in other spaces have a critical radiant flux of not less than 0.22 W/cm23. Critical radiant flux is also used to evaluate the fire safety of floor materials and coverings in transportation vehicles, such as aircraft, trains, and buses4.

NEW QUESTION: 116
All of the following must be demonstrated to prove professional negligence under standard of care EXCEPT
A. breach of contract.
B. owing of a duty.
C. causation.
D. damages or harm.
Answer: A (LEAVE A REPLY)

NEW QUESTION: 117
The purpose of the fire suppression rating schedule published by ISO Commercial Risk Services is to:
A. determine the number of engine companies required for community protection
B. provide a guideline for the location of fire stations
C. determine water supply needs for protection

D. aid in the calculation of fire insurance rates
Answer: (SHOW ANSWER)

NEW QUESTION: 118
Wildfires can have far-reaching impacts on the natural environment. Which tool can help land managers to create plans for landscape repair to minimize post-fire impacts on water supplies and other sensitive ecosystems?
A. Satellite imagery
B. Electronic data collection
C. Early detection cameras
D. Deployable heat detectors
Answer: A (LEAVE A REPLY)

NEW QUESTION: 119
Evaluating fire for probability as a sequence of outcome is accomplished through which of the following?
A. Pre-event analysis
B. After action review
C. Action matrix
D. Event tree
Answer: A (LEAVE A REPLY)
http://www.nfpa.org/Assets/files/AboutTheCodes/921/Ch%204%20methodology.pdf

NEW QUESTION: 120
How many additional switches or circuit breakers are allowed for a separate service?
A. 9
B. 8
C. 7
D. 6
Answer: D (LEAVE A REPLY)
Explanation
According to NFPA 70: National Electrical Code (NEC) 2020 Edition, Article 230.71(A), each service shall have only one disconnecting means unless the requirements of 230.71(B) are met, which provide four specific service configurations. In each configuration, there shall be not more than six switches or sets of circuit breakers, or a combination of not more than six switches and sets of circuit breakers, per service grouped in any one location. Therefore, the maximum number of additional switches or circuit breakers allowed for a separate service is six.References:
NFPA 70: National Electrical Code (NEC) 2020 Edition, Article 230.71(A) and (B)12
ElectricalLicenseRenewal.com, 230.71 Maximum Number of Disconnects3

NEW QUESTION: 121
For engine driven emergency power supplies, which of the following devices maintains a relatively constant speed of the prime mover throughout the full power output range by varying the fuel input to the prime mover?
A. Generator
B. Distributor
C. Governor
D. Alternator
Answer: (SHOW ANSWER)
. Governor
For engine driven emergency power supplies, the device that maintains a relatively constant speed of the prime mover throughout the full power output range by varying the fuel input to the prime mover is the governor. A governor is a device that automatically regulates the speed or power of an engine or other prime mover by adjusting the amount of fuel supplied to it. A governor senses the speed of the prime mover and compares it with a desired set point, and then controls the fuel valve to increase or decrease the fuel flow accordingly. By doing so, the governor ensures that the prime mover operates within a narrow range of speed or power, regardless of the load or other factors that may affect its performance12

NEW QUESTION: 122
The minimum width of a doorway in a means of egress to accommodate a person in a wheelchair is
A. 28 inches (711 mm).
B. 32 inches (813 mm).
C. 36 inches (914 mm).
D. 40 inches (1016 mm).
Answer: B (LEAVE A REPLY)
Explanation
The minimum width of a doorway in a means of egress to accommodate a person in a wheelchair is 32 inches (813 mm).This is based on the requirements of the Americans with Disabilities Act (ADA) and the International Building Code (IBC), which both specify that doors in a path of egress and doors on an accessible route must have a clear opening width

of at least 32 inches (813 mm)12. This width allows enough space for a person in a wheelchair to maneuver through the doorway without difficulty. A wider doorway may be preferable for some types of wheelchairs or other assistive devices, but 32 inches (813 mm) is the minimum standard for accessibility and safety.References:DECODED: Calculating the Egress Width of Door Openings - I Dig Hardware;Digital Codes.

NEW QUESTION: 123
Probabilistic fire models are categorized into all of the following EXCEPT
A. network.
B. statistical.
C. simulation.
D. behavioral.
Answer: A (LEAVE A REPLY)
Explanation
Probabilistic fire models are categorized into network, statistical, simulation, and behavioral models. Network models use graph theory to represent the fire spread and the fire protection system in a building. Statistical models use historical data and probability distributions to estimate the likelihood and consequences of fire scenarios. Simulation models use mathematical equations and numerical methods to describe the physical and chemical processes of fire and its effects on the environment and the occupants. Behavioral models use psychological and sociological theories to predict the human response and evacuation behavior in case of fire.
Network models are not a common category of probabilistic fire models, and they are not mentioned in the sources provided by the user. Therefore, network models are the correct answer.
References:Probabilistic Fire Simulation Assessment Using Simplified Model and Zone Modelling of a Kitchen Fire Scenario;Computer Fire Models for Fire Investigation and Reconstruction;Fire Behavior

NEW QUESTION: 124
Which one of the following principles is used to determine the necessary exit width?
A. Flow and capacity
B. Construction and design
C. Width and movement
D. Design and application
Answer: C (LEAVE A REPLY)

NEW QUESTION: 125
In designing a duct system for commercial cooking equipment, what is the minimum air velocity required to minimize grease accumulation?
A. 2,000 ft/min (610 m/min)

B. 1,900 ft/min (580 m/min)
C. 1,200 ft/min (366 m/min)
D. 1,500 ft/min (458 m/min)
Answer: (SHOW ANSWER)

NEW QUESTION: 126
Pre-incident planning for industrial and municipal emergency response includes all of the following data components. EXCEPT
A. Interior finishes
B. occupancy
C. Site considerations
D. Building construction
Answer: A (LEAVE A REPLY)

NEW QUESTION: 127
Central heating appliances are divided into four broad categories; central furnaces, floor furnaces, and:
A. Stoves
B. Salamanders
C. Boilers
D. Radiator
Answer: C (LEAVE A REPLY)

NEW QUESTION: 128
Picker trunk automatic sprinklers are used:
A. To reduce collections of lint and fiber on the head
B. In areas subject to freezing
C. For limited area sprinkler operations
D. When fed by the domestic system
Answer: A (LEAVE A REPLY)
Automatic sprinklers from which the valve cap and heat-responsive elements have been omitted are used in deluge sprinkler systems where the water supply is controlled by an automatic water control valve actuated independently of the automatic sprinklers. The water distribution pattern and the density of the discharge are designed to be appropriate for the hazard to be protected.

NEW QUESTION: 129
Clean agents were developed and commercialized in direct response to the phase out of which halon pertaining to the Montreal Protocol?
A. 1201
B. 1101

C. 1101
D. 1401
Answer: (SHOW ANSWER)

NEW QUESTION: 130
Wet chemical extinguishing agents when sprayed on a grease fire, extinguish the fire by
A. Smothering and cooling
B. Removal of the radical free agent
C. Radiation shielding
D. Removal of the fuel
Answer: A (LEAVE A REPLY)
Explanation
Wet chemical extinguishing agents, such as potassium acetate and potassium citrate, when sprayed on a grease fire, extinguish the fire by smothering and cooling. The wet chemical agent reacts with the hot grease and forms a layer of soap-like foam on the surface of the fat, which acts as an insulation between the hot grease and the atmosphere, preventing the escape of combustible vapors and oxygen supply.The wet chemical agent also absorbs heat from the grease and lowers its temperature below the ignition point12 References:
What is the Difference Between a Wet and Dry Chemical Fire ...
Wet Chemical (Class K) Fire Extinguisher - Portable - WFX

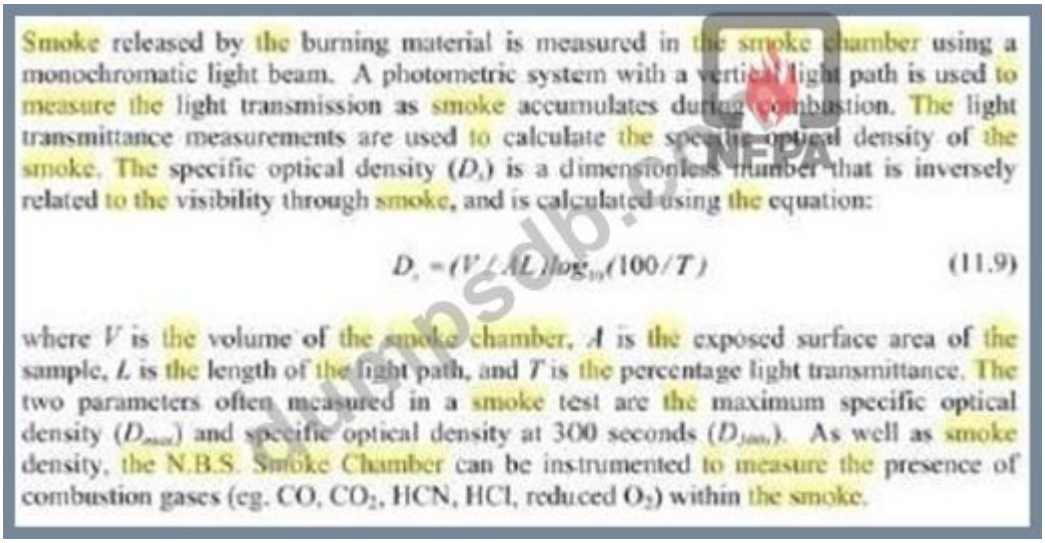
NEW QUESTION: 131
Which dry powder agent is suitable for extinguishing fires involving aluminum (AI)?
A. Lith-X
B. Pyrene G-1
C. Soda ash
D. Foundry flux
Answer: B (LEAVE A REPLY)

NEW QUESTION: 132
Terrorists have used explosive devices in thousands of attacks, but in recent years there has been a new trend in their use. What is this trend?
A. Suicide bombings
B. Implosion devices
C. Biological cores
D. Radioactive cladding
Answer: A (LEAVE A REPLY)

NEW QUESTION: 133
Panic hardware devices are designed to facilitate the release of the latching device on a door with a pressure note xceeding

A. 5 pounds (2.3 kg.) is applied in the direction of exit travel.
B. 10 pounds (4.5 kg.) is applied in the direction of exit travel.
C. 15 pounds (6.8 kg.) is applied in the direction of exit travel.
D. 20 pounds (9.1 kg.) is applied in the direction of exit travel.
Answer: (SHOW ANSWER)
Panic hardware devices are designed to facilitate the release of the latching device on a door with a pressure not exceeding 15 pounds (6.8 kg.) is applied in the direction of exit travel. This is the maximum force allowed by the codes and standards that regulate the use and installation of panic hardware, such as NFPA 101, NFPA 80, and ANSI/BHMA A156.3. The purpose of this requirement is to ensure that the doors can be easily opened by anyone in an emergency situation, without prior knowledge or special effort. Reference: Codes to Know for Panic Hardware - Facilitiesnet; Panic and emergency escape hardware | ASSA ABLOY | ASSA ABLOY; NFPA 101, Life Safety Code, 2023 Edition, Chapter 7, Section 7.2.1.7.2; NFPA 80, Standard for Fire Doors and Other Opening Protectives, 2023 Edition, Chapter 6, Section 6.1.3.5.1; ANSI/BHMA A156.3, Standard for Exit Devices, 2014 Edition, Section 4.1.1.

NEW QUESTION: 134
The NBS smoke chamber was developed specifically to measure.
A. Color of smoke
B. Temperature of smoke
C. Density of smoke layer
D. Obscuration by smoke particulates
Answer: C (LEAVE A REPLY)


Smoke released by the burning material is measured in the smoke chamber using a monochromatic light beam. A photometric system with a vertical light path is used to measure the light transmission as smoke accumulates during combustion. The light transmittance measurements are used to calculate the specific optical density of the smoke. The specific optical density (D_s) is a dimensionless number that is inversely related to the visibility through smoke, and is calculated using the equation:

$$D_s = (V / AL)\log_{10}(100/T) \quad (11.9)$$

where V is the volume of the smoke chamber, A is the exposed surface area of the sample, L is the length of the light path, and T is the percentage light transmittance. The two parameters often measured in a smoke test are the maximum specific optical density (D_{max}) and specific optical density at 300 seconds (D_{300}). As well as smoke density, the N.B.S. Smoke Chamber can be instrumented to measure the presence of combustion gases (eg. CO, CO_2, HCN, HCl, reduced O_2) within the smoke.

NEW QUESTION: 135
What are the extinguishing properties of a Wet Chemical Extinguishing system?
A. Chain breaking reaction and cooling action
B. smothering and cooling action
C. Radiation shielding and chain breaking reaction

D. Cooling action and radiation shielding
Answer: (SHOW ANSWER)

NEW QUESTION: 136
Which of the following is a fixed-temperature Deal detector composed of eulectic metals that melt rapxliy at a predetermined temperature and are used as operating elements for heat detection"
A. Bimetalic type
B. Continuous line type
C. Fusible-element type
D. Fiber optic linear type
Answer: C (LEAVE A REPLY)

NEW QUESTION: 137
The maximum distance between hangers for an automatic fire sprinkler system for a threaded lightwall steel pipe of 2 in. diameter is
A. 15 ft.
B. 12 ft.
C. 10 ft.
D. 8 ft.
Answer: C (LEAVE A REPLY)
According to NFPA 13, Table 17.4.2.1 (a), the maximum distance between hangers for an automatic fire sprinkler system for a threaded lightwall steel pipe of 2 in. diameter is 10 ft. This is done to ensure that there are not long stretches of unsecured piping that could sag, leak, or break. The distance between hangers may vary depending on the type of pipe, the type of hanger, and the seismic design category of the building. Reference: NFPA 13, Table 17.4.2.1 (a); Hangers and Support of Sprinkler System Piping | NFPA | NFPA.

NEW QUESTION: 138
Which system is used to communicate with public officials and the public so protective measures can be implemented?
A. Homeland Security Advisory System

B. Homeland Security Threat Advisories
C. Color-coded threat-level system
D. Homeland Security Information Bulletins
Answer: C (LEAVE A REPLY)

NEW QUESTION: 139
NFPA 3000, Standard for an Active Shooter/Hostile Event Response (ASHER) Program contains the following as four mam concepts: Whole Community Unified Command. Integrated Response and_____,
A. Planned Recovery
B. Prevention
C. Defensive Strategy
D. Mitigation
Answer: A (LEAVE A REPLY)

NEW QUESTION: 140
An oxygen enriched atmosphere is defined as any atmosphere in which the concentration of oxygen exceeds 21% by volume or the partial pressure of the oxygen exceeds what pressure?
A. 16 KpA
B. 1.6 psi
C. 160 TORR
D. 16 Atmospheres
Answer: (SHOW ANSWER)

NEW QUESTION: 141
When can the presence of chemical, biological, or radiological agents be ruled out?
A. No spilled materials
B. Confirmation is provided by detection equipment.
C. No signs or symptoms present
D. Property owner confirms none on property
Answer: B (LEAVE A REPLY)

NEW QUESTION: 142
For standpipe systems containing 11/2 - 21/2 in. (40 - 65 mm) hose connection outlets without preconnected hose, a pressure regulating device is required when pressure exceeds
A. 100 psi (689 kPa).
B. 125 psi (862 kPa).
C. 150 psi (1034 kPa).
D. 175 psi (1207 kPa).
Answer: D (LEAVE A REPLY)

. 175 psi (1207 kPa).
For standpipe systems containing 11/2 - 21/2 in. (40 - 65 mm) hose connection outlets without preconnected hose, a pressure regulating device is required when the pressure exceeds 175 psi (1207 kPa), according to NFPA 14, Standard for the Installation of Standpipe and Hose Systems, 2019 edition. This requirement applies to Class I and Class III standpipe systems, which are intended for use by fire department personnel or trained occupants. A pressure regulating device is a device that automatically reduces and controls the pressure of the water flowing through the hose connection outlet to a predetermined value. This device helps to prevent excessive pressure that could damage the hose, nozzle, or fittings, or cause difficulty in handling the hose stream123 Reference:
NFPA 14: Standard for the Installation of Standpipe and Hose Systems 1
Standpipe System Design and Calculations | NFPA | NFPA 2
ENGINE COMPANY STANDPIPE OPERATIONS:PRESSURE-REGULATING DEVICES 3

NEW QUESTION: 143
The most import step a grain or milling operation can take to minimize a fire or explosion is_____.
A. Perform a dust hazard analysis
B. Eliminate static electricity
C. Perform blowdowns of horizontal surfaces
D. Use wet methods for housekeeping
Answer: A (LEAVE A REPLY)