



## ***Fire Risk Assessment CEU Examination and Application***

Take the CEU examination to receive 0.50 CEUs upon completion of the Introduction to Fire Risk Assessment.

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### **Instructions:**

1. Download and print the CEU examination and application.
2. Complete the CEU examination and application
3. Mail the completed CEU examination and application, along with the \$79.00 USD examination grading fee to:

Society of Fire Protection Engineers  
Attn: Distance Learning Manager  
7315 Wisconsin Avenue, Suite 620E  
Bethesda, MD 20814

Or fax to: + (301) 718-2242

4. Method of Payment
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# CEU Examination and Application

## Application

Name: \_\_\_\_\_

Address: \_\_\_\_\_

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**Agreement** - By signing this application, you are stating that you have successfully completed the 19 sessions and have taken the exam.

Signature: \_\_\_\_\_

## Examination

Determine which of the following answer is correct then fill in the circle.

1.) An acceptability threshold is defined as:

- 1. The ratio of the occurrences to the opportunities of a particular event.
- 2. The outcome of an event, which can be expressed positively/negatively and/or quantitatively and/or qualitatively.
- 3. A quantified value that is chosen to allow comparison between calculated risk to support an evaluation or design.
- 4. A process for estimation and evaluation of fire risk that addresses appropriate fire scenarios.

2.) Handling disagreements between stakeholders could be the most difficult aspects of fire risk management because:

- 1. There needs to be excessive requirements.
- 2. There is one deciding entity.
- 3. The stakeholders may have different interests and the desire for different consequence measures.
- 4. Of political obligations.

3.) When a fire risk assessment is conducted, why is “Protection of Assumptions” important?

- 1. So that all of the stakeholders are present during the discussions.
- 2. To improve the cost-effectiveness of fire risk prevention.
- 3. To analyze disputes between stakeholders.
- 4. The risk analysis is tied to a set of conditions and assumptions that may change.

4.) Environmental Protection is an important strategic goal to prevent which of the following:

- 1. Contamination of an ecosystem.
- 2. A poor public image.
- 3. Costly cleanups.
- 4. All of the above.

5.) You are conducting a fire Risk Assessment for a warehouse. The warehouse stores hazardous materials, and is located adjacent to a residential community. Which of the following groups most comprehensively represent the stakeholders that should be considered in the fire risk assessment?

- 1. Owner, engineer, AHJ, fire service officer, home owners.
- 2. Owner, architect, engineer of record, surveyor.
- 3. Building official, building inspector, fire service officer.
- 4. Politicians, home owners, activists.

6.) Which of the following most comprehensively describes the fire safety goals that might be addressed by a fire risk assessment?

- 1. Life Safety
- 2. Life Safety, Property Protection, Continuity of Operations, Environmental Protection.
- 3. Life Safety, Property Protection, Continuity of Operations, Environmental Protection, Preservation of Cultural Heritage.
- 4. Life Safety, Cost Effectiveness, Continuity of Operations, Environmental Protection, Preservation of Cultural Heritage.

7.) The concept of “*de minimis risk*” is based on:

- 1. When risk may be acceptable when evaluated against costs of reduction or other considerations external to the risk.
- 2. The premise that there is some level of risk below which one does not need to be concerned.
- 3. The process of comparing the calculated risks for alternative courses of action.
- 4. The evaluation of costs to define the difference between what is practicable and what is reasonably practicable.

8.) Comprehensive project documentation should be provided on:

- 1. Any agreements made by the stakeholders.
- 2. Steps necessary to take if the building undergoes a change in ownership.
- 3. The amount of protection systems that must be maintained in the building.
- 4. The set of conditions under which the risk assessment is considered to be valid, what types of changes in conditions would require a new risk assessment, any conditions that are placed on the analysis or assumptions that are made.

9.) Which of the following is NOT an initiating hazard?

- 1. Fireworks stored in a warehouse.
- 2. A closed control valve on a sprinkler system.
- 3. Smoking.
- 4. Operating a propane torch to fix a roof.

10.) The hazard identification process involves:

- 1. Initiating hazards, contributing factors, vulnerabilities.
- 2. Initiating hazards, contributing factors, vulnerabilities, cost effectiveness.
- 3. Initiating hazards.
- 4. Contributing factors, vulnerabilities.

11.) A representative fire scenario of a scenario cluster should be:

- 1. A scenario with consequences which are equal to or greater than other scenarios in the cluster.
- 2. Consequences which are similar in magnitude to other scenarios in the cluster.
- 3. A worst case scenario.
- 4. All of the above.

12.) Data for a fire risk assessment must:

- 1. Contain several data sources.
- 2. Be relevant to the risk being analyzed.
- 3. Have no inaccuracies.
- 4. Contain the exact parameters of the fire risk assessment.

13.) Frequency is:

- 1. The probability of an event given the occurrence of a preceding event.
- 2. The ratio of the occurrences to the opportunities of a particular event.
- 3. The number of times an event occurs within a specified time interval.
- 4. Empirical results that, for a given set of initial conditions, will always produce the same outcome.

14.) Which of the following is a contributing factor?

- 1. A fire burning out a data center.
- 2. High winds.
- 3. A match falling into a trash can.
- 4. Smoldering ashes.

15.) Consequences can be determined from an:

- 1. Evaluation of consequences using loss experience/historical data.
- 2. Evaluation of consequences using engineering judgment.
- 3. Evaluation of consequences using models.
- 4. All of the above

16.) Sources of error and uncertainty should include:

- 1. Relationship of uncertainty to risk calculation such as how error can arise from any of the components of the calculation.
- 2. Relationship of uncertainty and variability.
- 3. Types of error related to information used in the fire risk assessment.
- 4. All of the above

17.) If the risk is clearly not acceptable during risk evaluation, how can an acceptable level of risk be achieved:

- 1. Revisit acceptability threshold and/or reduce risk
- 2. Specify more fire scenarios.
- 3. Find more data
- 4. All of the above

18.) Documentation is the most important step of the fire risk assessment process because:

- 1. A record is made of all of the analysis and outcomes of the assessment.
- 2. All of the stakeholders are informed of the outcomes.
- 3. Any necessary solutions or compromises are specified.
- 4. All of the above.

19.) The presentation of data sources in the fire risk assessment is essential to:

- 1. Provide a clear view of the scope
- 2. Assist in hazard analysis.
- 3. Prove thoroughness and applicability to the reviewer.
- 4. Both 1 and 3.

20.) Refining the risk analysis can be accomplished by:

- 1. Reducing the uncertainties in the data by increasing the size of the data set used.
- 2. Engineering judgment.
- 3. If simple methods were used to estimate consequences, then even more simpler methods should be explored.
- 4. All of the above