



STUDY AND TEST MATERIAL  
for the  
**FEX, CKH2, & KHFE2**  
ASSESSMENTS

(Fire Extinguisher, Commercial Hood Install and Service, and  
Combination Kitchen Hoods and Fire Extinguisher On-site)  
September 16, 2020

This document contains sample questions and information to help participants  
study for these assessments.

If you intend to use this booklet in the test, make sure it is bound in a binder or  
stapled. Loose papers are not allowed.

*IMPORTANT: Material provided is not intended to endorse, represent quality, recommend a particular product, or single out any product. Material may be used to provide standardized content for test questions to ensure that participants know how to use data sheets and manufacturer materials to establish listing and installation limitations of these types of products. There is no implied or other relationship between CSA and the manufacturers or suppliers of information used. CSA is not liable for accuracy or content of material contained within these documents. Material in this booklet is for testing purposes only and is not to be used for installation of these systems / components. Check with suppliers for current and specific information to be used in actual design and installation conditions.*

A decorative graphic consisting of several overlapping, semi-transparent blue triangles of various shades, creating a dynamic, abstract shape on the left side of the page.

**THE FOLLOWING ARE THE ONLY MATERIALS ALLOWED IN AN EXAM  
COVERED BY THIS STUDY GUIDE**

- CSA Study and Test Material for the FEX, CKH2, & KHFE2 Assessments
- CSA Design Criteria for CSA Kitchen Suppression Assessments (CKH2 & KHFE2)
- NFPA 10 – Standard for Portable Fire Extinguishers
- NFPA 17A – Standard for Wet Chemical Extinguishing Systems
- NFPA 96 – Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations
- Non-programmable calculator

Your exam may not require all these items, but these are the only items allowed during an exam covered by this study guide. Page 3 provides a list of what materials are required for each exam.

About the Assessments:

**Assessment Abbreviation:** FEX - Fire Extinguishers

**Number of Questions:** 42

**Amount of Time for Test:** 60 minutes

**Assessment Abbreviation:** CKH2 - Commercial Hood Install and Service

**Number of Questions:** 49

**Amount of Time for Test:** 60 minutes

**Combination Exam:** KHFE2 - Kitchen Hoods and Fire extinguishers

**Number of Questions:** 91

**Amount of Time for Test:** 120 minutes

**Exam format:** Open book (provide your own books). The candidate is required to bring/provide a basic non-programmable calculator. On-screen note section will be provided for online proctored exams. Scratch paper or dry-erase board will be provided for exams at a proctored facility. Any books or exam documents brought into exam must be bound as no loose papers are allowed.

**Passing Score:** 80%

**Cell Phones:** Do not bring cell phones, pagers, or radios into the test center or online proctored room.

**Codes / Materials Used for FEX Exam and Editions:**

- 2018 Edition NFPA 10
- Calculator is recommended for this exam (basic non-programmable)

**Codes / Materials Used for CKH2 Exam and Editions:**

- 2017 edition of NFPA 17A
- 2017 NFPA 96 (Handbooks are recommended when available)
- CSA Design Criteria for CSA Kitchen Suppression Assessments (on our web site under Assessment Subjects)
- Calculator is recommended for this exam (basic non-programmable)

**Codes / Materials Used for KHFE2 Exam and Editions: (this is a combination exam)**

- Use the above documents for FEX and CKH2 exams

**General Assessment Information:**

**About the Questions:** Questions are randomly selected from respective topics within a larger database. Answer choices are randomly mixed, meaning that choice “B” will not always be in position “B”.

**Exam Format:** Questions are computer based and will be delivered one at a time. You will have the opportunity to go back and review all questions. You can also “check” a box within each question which will flag it for later review. During the review, checked questions will be marked for easier identification.

**Time Clock:** Most assessments will have a count-down timer displayed on the screen. Do not focus on the clock but use it as a guide.

## Important Candidate Information

### **YOUR SCORE & PRINTING SCORE REPORTS**

All scores provided at the end of your exam and in your score email are “preliminary”. Exams are subject to review of audio / video recordings, or concerns raised by proctors.

Your preliminary score will be automatically emailed following the exam. Candidates may also log into their Webassessor account to view/print score reports. Use the link and info in your scheduling emails.

Score reports for failed exams will provide a breakdown of scores by topics/subjects within the exam. Your overall score determines Pass/Fail. However, the topic scores help to identify areas that need more attention when studying. Topic scores will not be provided on Pass emails.

### **Taking Materials Into Exams**

CSA exams are open book. You must provide your own books and required exam materials, including calculators. Check this guide to verify what editions exams are based on. All material must be bound (no loose papers). Other than items listed on Page 2 of this guide, do not take other items into the exam.

Page tabs must be of permanent type. Do not mark in any materials during an exam.  
Phones, radios, pagers are not allowed in exam rooms, please leave these in your vehicles.  
Two forms of ID are required for exams.

### **Photographs**

Your photo is required to be submitted to CSA with your initial registration request. This photo may be used by proctors to verify who is scheduled for the exam. Although not required, you may want to wear a company shirt/logo for your picture. Pictures are cropped to best fit ID card, so there is no guarantee the logo will show. You will be recorded and a photo may be taken during exam sessions.

### **Respectful of Others**

At a proctoring center, please be respectful of others taking exams by minimizing noise and interruptions. If you have any exam or computer problems please notify the proctor so they can assist. If necessary, the proctor can log a report for further investigation. Then notify CSA so we can look into the problem.  
If taking an Online proctored exam, please make sure others know to not interrupt. Your exam may be terminated and require new payments for interruptions or suspicious behavior.

### **Proctoring Options**

You have two options for proctoring. Online proctoring where you use your computer and USB webcam to take the exam with a proctor watching you via camera, or at a physical proctoring center. See website for info.

### **How to Request Your First Exam / Assessment**

First, download study material and get the required codes/standards needed for your exam. Then, review our website to understand the options for proctoring, and decide which option works best for you.

You are required to pay for your assessment and submit a picture at the time of submitting the request. Have payment and a photo file ready.

To start the process, you must “Request an Assessment” from [www.CSAexams.com](http://www.CSAexams.com). Within 1-3 days you should receive an email with information to schedule your exam. Make sure you are requesting and paying for the correct exam as there are no refunds.

### **Cancel or Rescheduling an Exam**

To cancel or reschedule an exam you must log back into the system where you scheduled the exam, or using links at [www.CSAexams.com](http://www.CSAexams.com) under Contractor Info. Online Proctored exams require 24 hrs and Proctoring Centers require 72 hrs notice. If the system will not give you the option to Cancel/Reschedule than you must show up or firefright your fees. There are no refunds.

### **If You Fail an Exam**

If you fail an exam, you must Request a new Assessment and make full payment from [www.CSAexams.com](http://www.CSAexams.com). Within 1-3 days you will get an email to schedule your exam.

### **When you Pass an Exam**

ID cards and certificates will generally be mailed out within three weeks. They will be mailed to the address provided when requesting the assessment. If the address has changed, please email CSA with new address.

### **If You Need a New ID Card**

To change the company name, change your last name, or if you have lost your card, go to [www.CSAexams.com](http://www.CSAexams.com) and select Replacement ID link. Exams are good for 3 years. Then a new exam is required for renewal.

Please report cheating to the proctor or CSA.

## **FIRE EXTINGUISHER EXAM STUDY MATERIAL**

Kitchen Hood exam material starts on Page 7

The following questions are related to the FEX assessment. These are sample questions. Questions on FEX assessment may come from the body of the code or any of the Annex sections. Please review and be familiar with all of NFPA 10. The questions below are not intended to provide an in-depth review. Rather, they are only intended to give you an idea of what to expect.

Question 1:

Which would represent a Class A fire?

- Trash Can
- Cooking oil on a gas stove
- Electrical power strip
- Bucket of Magnesium Shavings

Question 2:

A "three-dimensional Class B fire" identifies:

- A computer generated 3-D fire commonly used in training videos
- An interactive holographic fire
- A flammable liquid pool fire in a corner with higher radiant heat from the three enclosed sides (floor and two walls).
- A fire involving flammable liquids running down a set of stairs.

Information on three dimensional fires can be found in NFPA 10, A.5.5.2. Such fires often create a unique challenge to fight.

Question 3:

Select those extinguishers that are considered obsolete and shall be removed from service. Select all that apply.

- Vaporizing liquid (carbon tetrachloride)
- Soda acid
- Copper or brass shell (excluding pump tanks) joined by soft solder or rivets
- Chemical foam (excluding film-forming agents)
- Cartridge-operated loaded stream
- Any extinguisher with 4B, 6B, 8B, 12B, and 16B fire ratings
- Each type indicated may continue to be used even though some are no longer manufactured

Question 4:

A "water mist fire extinguisher" is defined as a fire extinguisher in which the agents have sufficient vapor pressure at normal operating temperatures to expel themselves.

- True
- False

Question 5:

In accordance with Annex C, which of the following could be used in selecting the best portable fire extinguisher for a given situation?

- Ease of use of the fire extinguisher
- Potential severity of any resulting fire
- Nature of combustibles or flammables that could be ignited
- Upkeep and maintenance requirements for the fire extinguisher
- Whether office trash cans are round or square

Question 6:

Class \_\_\_\_\_ fires are fires in ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics.

- A
- B
- C
- D

Annex D provides information regarding operation and use. In this question, you will need to find the corresponding section to match the options.

Question 7:

What is the maximum square footage that a single 1A fire extinguisher can cover?

- 1,000 ft<sup>2</sup>
- 3,000 ft<sup>2</sup>
- 6,500 ft<sup>2</sup>
- 11,000 ft<sup>2</sup>

Question 8:

Any fire extinguisher that can no longer be serviced in accordance with the manufacturer's maintenance manual is considered obsolete and shall be removed from service.

True

False

Question 9:

Fire extinguishers containing water-based agents that have a conductivity higher than 3.00  $\mu\text{S}/\text{cm}$  at 25°C (77°F) shall be considered a conductor of electricity and therefore shall not be rated Class C.

True

False

Question 10:

Fire extinguishers classified for use on Class C hazards shall be required to have a rating number preceding the classification letter that indicates the relative extinguishing effectiveness.

True

False

Additional fire extinguisher information to study includes, but is not limited to:

- Make sure you understand the difference of maximum distance to reach an extinguisher, and the maximum distance between two extinguishers.
- Review Annex material to understand what type of extinguisher agent works best on a particular type of fire.
- Understand the differences between inspection, maintenance, service, etc.

### End of Material for Fire Extinguisher Only Exam

## **KITCHEN HOOD EXAM MATERIAL**

For those taking the Kitchen Hood exam, make sure you understand the limitations of piping, fittings, and elbows and nozzles for particular protection.

Since most systems utilize wet chemical, be very comfortable with NFPA 17A. Questions on this exam will start with the applicable code / reference document in brackets, such as [NFPA 17A].

When a question starts out with “(CSA Hood Manual)”, this indicates that the material is found in the “Design Criteria for CSA Kitchen Suppression Assessments” manual.

The following are some sample questions that may be found on Kitchen Hood Exams.

### Question 1

[NFPA 96] Equipment and devices used for the purpose of cleaning air passing through them or by them in such a manner as to reduce or remove the impurities contained therein would be defined as:

- Detection Device
- Duct
- Baffle Plate
- Air Pollution Control Device

### Question 2

[NFPA 96] Work including, but not limited to, repair, replacement, and service, performed to ensure that equipment operates properly is defined as:

- Inspection
- Testing
- Maintenance
- Discharge
- Activation

### Question 3

[NFPA 96] A device or series of devices whose purpose is to reclaim only the heat content of air, vapors, gases, or fluids that are being expelled through the exhaust system and to transfer the thermal energy so reclaimed to a location whereby a useful purpose can be served is defined as:

- Thermal Recovery Unit
- Heater
- Air Conditioner
- Water Wash System

Question 4

[CSA Hood Manual]

The maximum number of pressure operated actuators that can be used with a CO2 control box is 1.

- True
- False

Question 5

[CSA Hood Manual] The maximum exposure temperature is stamped onto the fusible link.

- True
- False

Question 6

[NFPA 96] The hood exhaust fan shall start upon activation of the extinguishing system if the exhaust fan and all cooking equipment served by the fan are in the off position.

- True
- False

Question 7

[NFPA 17A] Wet chemical fire extinguishing systems for the protection of cooking operations shall be listed and shall meet or exceed the requirements of \_\_\_\_\_:

- UL 100
- UL 200
- UL 300
- UL 425

Question 8

[NFPA 17A] At least three manual actuation devices are required with one being at the front entrance, one being at the rear entrance, and one being within 15' of the appliance.

- True
- False

Question 9

[NFPA 17A] Common exhaust ducts shall be protected by wet pipe sprinklers meeting criteria of NFPA 13.

- True
- False



Question 10

[NFPA 17A] Cooking equipment used in processes producing smoke or grease-laden vapors shall be equipped with an exhaust system that complies with all the equipment and performance requirements of which standard.

NFPA 10

NFPA 17A

NFPA 13

NFPA 80

Question 11

[NFPA 17A] The responsibility for inspection, testing, maintenance, and cleanliness of the ventilation control and fire protection of the commercial cooking operations, including cooking appliances, shall ultimately be that of \_\_\_\_\_, provided that this responsibility has not been transferred in written form to a management company, tenant, or other party.

The fire marshal

The contractor

The insurance company

The owner