DEPARTMENT OF FORESTRY AND FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL
FIRE ENGINEERING AND INVESTIGATIONS
P.O. BOX 944246
SACRAMENTO, CA 94244-2460
(916) 568-2948
Website: www.fire.ca.gov

Date: April 17, 2024

To: Automatic Extinguishing Systems Committee

From: Andrew Henning, Assistant Deputy Director

SUBJECT/AGENDA ACTION ITEM:
Sprinkler Fitter and Multifamily Residential Sprinkler Fitter Cognitive Exams

Recommended Actions:
Information Only

Background Information:
In 2018, the Office of the State Fire Marshal (OSFM) partnered with CPS HR Consulting (CPS HR) to develop the sprinkler fitter certification cognitive exam. CPS HR performed a sprinkler fitter job analysis study to create a test plan. Following the job analysis, item writing and item reviewing took place.

The OSFM implemented the *Sprinkler Fitter* and the *Multifamily Residential Sprinkler Fitter* cognitive exams in 2019. The *Sprinkler Fitter* exam contains 112 questions, and the Multifamily Residential Sprinkler Fitter exam contains 70 questions. Both Exams have a time limit of 180 minutes and are available in English and Spanish.

Analysis/Summary of Issue:
The OSFM is in the early stages of consulting with test development and validation specialists from California State University Sacramento (CSUS). These consultants will evaluate the Sprinkler Fitter and the Multifamily Residential Sprinkler Fitter cognitive exams and provide recommendations on improving the performance and reliability of the exams. Some of the items the OSFM is requesting input on from CSUS are reviewing the test plans, flagging items that are not performing, rewriting items that are not performing, creating new items, creating new forms for reattempts, and identifying other industry best practices for state certification exams.

Once CSUS has performed its preliminary review, the OSFM will form a working group of Automatic Extinguishing Systems industry experts from California to assist with item writing and validation. The goal will be to launch the revised exams by Spring 2025. The OSFM will perform test item analyses, following industry best practices as needed.

Potential Industry Impacts:
At this point, no industry impacts have been identified. There is a potential that the exams may add more test items, which may increase the test time. The goal of adding new test items will be to improve the exam's reliability, making an exam that is equitable to the industry and profession.