

Category 5

Criterion 5C: Fire Investigation, Origin, and Cause Program

The agency operates an adequate, effective, and efficient program directed toward origin and cause investigation and subsequent classification of fires, explosions, and other emergency situations that endanger life or property to drive community risk reduction activities. The agency should conduct a thorough risk analysis as part of activities in Category 2 to determine the need for a fire investigation program.

Summary:

The Meridian Fire Department is legally bound to investigate all fire incidents by adoption of the 2018 International Fire Code, section 104.10. The deputy chief of prevention (fire marshal) oversees the fire investigation program, which includes the fire marshal and two certified fire investigation technicians, who are on call to investigate after-hours fires. Fire investigators are certified through the International Association of Arson Investigators, attend the National Fire Academy Fire Investigation track, and meet National Fire Protection Agency (NFPA) 1033: *Standard for Professional Qualifications for Fire Investigator* requirements. In 2022 the fire marshal and investigators investigated over 60 fires following NFPA 921: *Guide for Fire and Explosion Investigations* scientific methods. Many other smaller fires are investigated by responding crews, company officers, and chief officers.

Performance Indicators:

CC 5C.1 The agency’s fire investigation, origin, and cause program is authorized by adopted statute, code, or ordinance.

Description

The City of Meridian operates using the 2018 International Fire Code (IFC), which in 104.10 states that the fire department is legally responsible to investigate the origin, cause, and circumstance of all fires. The 2018 IFC is adopted by City Ordinance 20-1905 and contained in City Code Chapter 10-4-1, Fire Code Adopted.

Appraisal

The adoption of IFC 104.10 through City Ordinance and written into city code has served as adequate legal authority for the fire investigation program for the Meridian Fire Department.

Plan

The department will continue to operate a fire investigation program that will investigate the origin, cause, and circumstance of all fires using designated fire investigators or on-duty crews. The city will continue to adopt the International Fire Code every-other cycle.

References

- City of Meridian Ordinance 20-1905
- City of Meridian Code of Ordinances, Chapter 10-4-1 Fire Code Adopted

CC 5C.2 The agency uses a systematic approach based on the scientific method to investigate all fire and explosion incidents. The investigation should determine or render an opinion as to the incident's origin, cause, responsibility and/or prevention to include the damage and injuries that arise from such incidents.

Description

The department uses National Fire Protection Agency (NFPA) 921: *Guide for Fire and Explosion Investigations* as the guide for investigating all fire and explosion incidents. NFPA 921 outlines the scientific method used by department investigators including determining need, defining the problem, collecting data, data analysis, hypothesis development, testing, and final conclusions.

Appraisal

NFPA 921 has proved to be an effective and systematic approach to fire investigations for the department. The department has integrated NFPA 921 into its Structure Fire Investigation Form, Vehicle Fire Investigation Form, and Casualty Report Investigation Form which serve as the documentation of the scientific method.

Plan

The department will continue to use NFPA 921 as its systematic approach to fire investigations, and will update its investigation forms if and when NFPA 921 is updated.

References

- NFPA 921: *Guide for Fire and Explosion Investigations*

- Structure Fire Investigation Form

- Vehicle Fire Investigation Form

- Casualty Report Investigation Form

CC 5C.3 The program has adequate staff with specific expertise to meet the fire investigation, origin, and cause program goals, objectives, and identified community risks.

Description

The deputy chief of prevention (fire marshal), fire investigators, and company officers are responsible for the investigation of the origin, cause, and circumstance of all fires.

Responding crews are able to investigate and document minor calls, and fire investigators can be requested under the following circumstances: high dollar loss, fatality, potential for a fatality, firefighter/public injury, multiple sets (incendiary), antique vehicles (high dollar loss), inconsistent stories, incendiary device found on scene, natural (lightening, etc.) fire, or responder discretion. The fire marshal manages the investigation program and two dual role inspector/investigators are available on call to conduct fire investigations after hours.

The fire marshal is a Certified Fire Investigator with the International Association of Arson Investigators (IAAI) and a Certified Fire and Explosion Investigator with the National Association of Fire Investigators (NAFI), and is the only Certified Fire Marshal with the Commission on Professional Credentialing (CPSE) in the state of Idaho. All fire investigators hold Fire Investigation Technician certifications through the IAAI and attend the National Fire Academy's Fire Investigation Essentials course.

Appraisal

The department has been able to investigate the vast majority of fires within the City of Meridian using department staff, crews, or investigators. On a few occasions after-hours inspectors have been unavailable and an inspector from Boise Fire Department has been requested through automatic aid. All inspectors have maintained their certifications and all new firefighters have been trained in their responsibilities for investigations by fire investigators.

Plan

The department plans to add a third dual role investigator/inspector so that each shift has an on-call investigator for after-hours fires. The fire marshal will work with the fire chief and finance department to add this position to the budget and the 10-year comprehensive financial plan.

References

- Captain – Fire Inspector Job Description
- Fire Marshal Certifications
- Fire Investigation Presentation for New Firefighters

CC 5C.4 The agency conducts a formal and documented program appraisal, at least annually, to determine the program’s impacts and outcomes, and to measure performance and progress in reducing risk.

Description

The department conducts formal program appraisals annually. The deputy chief of prevention is responsible for evaluating the fire investigation program, as well as for preparing an annual report on the program for the department’s published Annual Report.

Appraisal

The prevention division has provided an annual appraisal in the form of an annual report update for many years. The department began conducting formal program appraisals with fiscal year 2022 following the accreditation model. In 2022 the inspection program shared a budget with the prevention program as all investigators are also dual-role inspectors. The investigation team investigated over 60 fires in 2022 and many other small fires were investigated by responding crews, chief officers, and company officers. The investigation program measures its performance through budget usage, staffing, and analyzing causes of fires.

Plan

The department will continue conducting annual program appraisals according to the fiscal year calendar and the Administrative Standard Operating Guideline for program appraisals. The department will evaluate and update the program appraisal template as needed. The department will also add a third fire inspector to the program in FY 2023. The department will evaluate the success of the program by how often a Meridian Fire Inspector was able to respond when requested to a fire in the Meridian response area.

References

- ASOG – Program Appraisals
- Annual Program Appraisal – 5C.4 Fire Investigation