

## **Category 5**

### **Criterion 5H: Hazardous Materials (Hazmat) Program**

The agency operates an adequate, effective, efficient and safe hazardous materials program directed toward protecting the community from the hazards associated with the uncontrolled releases of hazardous and toxic materials. If identified risks are outside the scope of the agency's capabilities, Category 10 performance indicators should address the agency's ability to receive aid from partners in those areas. The agency must conduct a thorough risk assessment as part of activities in Category 2 to determine the need for specific hazardous materials program and support the overall risk reduction strategy. Agencies that only provide first responder services must also complete this criterion.

#### **Summary:**

The department continues to operate the Hazardous Materials response team from Station 4. Engine 4 is a combined engine and hazardous materials response vehicle and is staffed daily with four personnel. A tandem axle trailer is also located at station #4 and houses additional equipment. The department currently has 44 members International Fire Services Accreditation Congress (IFSAC) Hazardous Materials Technician certified. The department has 101 members who are IFSAC Hazardous Materials Operations Certified and 19 technicians and four operation level personnel are assigned to the Hazardous Materials Team at Station 4.

The operations and training for the hazmat team falls under the supervision of the Operations Division and Training Division. The department is responsible for overall management of Hazardous Material incidents in Douglas County using a unified command structure established with the jurisdictional fire department. The Hazmat Team responds to hazardous material releases, including decontamination for both victims and responders at large and small-scale incidents. The department maintains relationships with Douglas County Emergency Management, the University of Kansas, Kansas Department of Health and Environment, the Environmental Protection Agency, State of Kansas Fire Marshal's Office, Regional Hazmat Teams (KSTF 2), Civil Support Team (73rd CST), local facilities and other organizations.



## **Performance Indicators:**

**CC 5H.1** Given the agency's community risk assessment/standards of cover and emergency performance statements, the agency meets its staffing, response time, station(s), apparatus and equipment deployment objectives for each type and magnitude of hazardous materials incident(s).

### **Description**

The department meets its baseline deployment objectives as identified in department SOP 103.21 Response Performance and Outcomes Appendix A, Baseline. Response performance objectives are described to include staffing, response time, pumping capacity, and other capabilities of the first arriving unit (distribution) and the effective response force (concentration).

#### Hazardous Materials Distribution

For 90 percent of all low risk hazardous materials response incidents, the total response time for the arrival of the first-due unit, with a minimum of 3 firefighters and 1 officer, (4) total; is: 10 minutes and 22 seconds in urban areas and there is no qualifying data in rural areas. The first-due unit is capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; and requesting additional resources. These operations are performed utilizing safe operational procedures.

For 90 percent of all moderate risk hazardous materials response incidents, the total response time for the arrival of the first-due unit, with a minimum of 3 firefighters and 1 officer, (4) total; is: 10 minutes and 49 seconds in urban areas, 10 minutes and 40 seconds in rural areas. The first-due unit is capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; and requesting additional resources. These operations are performed utilizing safe operational procedures.

For 90 percent of all high risk hazardous materials response incidents, the total response time for the arrival of the first-due unit, with a minimum of 3 firefighters and 1 officer, (4) total; is: 10 minutes and 30 seconds in urban areas and there is no qualifying data in rural areas. The first-due unit is capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; and requesting additional resources. These operations are performed utilizing safe operational procedures.

#### Hazardous Materials Concentration / Effective Response Force

For 90 percent of all low risk hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF), with a minimum of 3 firefighters and 1 officer, (4) total; is: 10 minutes and 24 seconds in urban areas and there is no qualifying data in rural areas. The effective response force is capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; and requesting additional resources. These operations are performed utilizing safe operational procedures.

For 90 percent of all moderate risk hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF), with a minimum of 4 firefighters and 2 officers, (6) total; is: 11 minutes and 29 seconds in urban areas, 32 minutes and 18 seconds in rural areas. The effective response force is capable of: establishing command; performing an initial scene assessment; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; providing a hose line for protection; providing advanced medical care; transporting the patient to the hospital; and requesting additional resources. These operations are performed utilizing safe operational procedures.

For 90 percent of all high risk hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF), with a minimum of 10 firefighters and 6 officers, (16) total, 4 being hazardous materials technicians; is: not applicable because there were no qualifying incidents in urban areas or rural areas. The

effective response force is capable of: establishing command; performing an initial scene assessment; establishing a hazard zone; establishing a hazmat group; performing research; performing air quality analysis; assisting with an evacuation; ventilating a structure; performing gross decontamination; performing technical decontamination; providing a hose line for fire protection; providing advanced medical care; transporting the patient to the hospital; and requesting additional resources. These operations are performed utilizing safe operational procedures.

### **Appraisal**

The hazardous materials program has been measured based on the historical response time performance. The review of output measures could be enhanced by analyzing outcome measures. This is not currently being performed.

The 2020 Station Optimization Analysis was utilized to recommend station expansions and relocation to enhance and strengthen the deployment of emergency resources. The publication was useful in communicating to community stakeholders and community leaders about the department's response performance gaps. The implementation of the recommendations would directly impact the outputs related to the hazardous material program.

### **Plan**

The department will continue to assign and maintain hazardous material technicians to the hazardous materials team. The department will continue identifying and supporting employees to complete IFSAC certification hazardous materials technician training courses. The replacement of Engine 4 is slated for 2025 in the city's Capital Improvement Plan. Funding for the hazardous materials program comes from Douglas County.

The department will utilize the 2020 Station Optimization Analysis with updated risk dimension data to continue to pursue emergency resource deployment recommendations.

### **References**

Hazmat Technician Roster

SOP 103.21 Response Performance and Outcomes Appendix A, Baseline

2022 CRASOC

2020 Station Optimization Analysis

2017-2021 Response Performance Tables

5H.2 The agency complies with all aspects of applicable hazardous material regulations such as annual refresher training, medical monitoring of response personnel, annual physical examinations as applicable per standards, and exposure record retention.

### **Description**

The hazardous materials program team's goal is to provide nine hours of operations level hazmat training to department employees on an annual basis. Hazmat team technicians, with the assistance of the Training Division, conduct the annual training to ensure compliance with NFPA and OSHA standards. The hazmat team receives additional training hours by conducting in house drills, equipment reviews, and outside training; i.e., Hazmat IQ, 73<sup>rd</sup> Civil Support Team, Emergency Management, Department of Homeland Security, and University of Kansas Fire Rescue Training Institute, and Kansas Division of Emergency Management & Homeland Security. The department provides annual physicals for every operations employee, per NFPA 1582, documented in the IAFF Local 1596 MOU.

### **Appraisal**

The department provides hazardous materials training annually in compliance with 29CFR 1910.120. Department employees completed 2,433 hours of hazmat training in 2021. Training consisted of three, four-hour sessions per shift. The department will continue to follow the MOU regarding annual physical evaluation for all department sworn employees.

### **Plan**

The department will continue providing quality hazardous materials training to sworn employees of the department. The department will continue to monitor the regulations and continue to stay compliant.

### **References**

MOU IAFF Local 1596 – Section 10.5 (page 40)

NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments (available on-site)

## 2021 Hazardous Materials Program Appraisal

**CC 5H.3**      **The agency conducts a formal and documented program appraisal, at least annually, to determine the impacts, outcomes, and effectiveness of the program, and to measure its performance toward meeting the agency’s goals and objectives.**

**Description**

The department conducts a formal and documented program appraisal annually that summarizes the program’s impacts, outcomes, and effectiveness in the prior year. New goals are outlined in the upcoming year within this document.

**Appraisal**

The department’s assigned program manager and supportive staff have been able to complete an annual program appraisal. These appraisals are provided to the AHJ for review, as well as posted on the department’s external /internal website for employee review as part of the Annual Compliance Report.

**Plan**

The department will continue to utilize these appraisals to improve performance within the program as well as develop more efficient operational procedures based on the prior year’s performance.

**References**

- 2021 Hazardous Materials Program Appraisal
- 2022 CFAI Annual Compliance Report (pages 27-29 ,85-91)