Category 8: Training and Competency

Training and educational resource programs express the philosophy of the organization they serve and are central to its mission. Learning resources should include a library; other collections of materials that support teaching and learning; instructional methodologies and technologies; support services; distribution and maintenance systems for equipment and materials; and instructional information systems, such as computers and software, telecommunications, other audiovisual media, and facilities to utilize such equipment and services. If the agency does not have these resources available internally, external resources are identified, and the agency has a plan in place to ensure compliance with training and education requirements.

A learning resources organizational structure and a technically proficient support staff are central to success of training and educational programs. The training staff should provide services that encourage and stimulate competency, innovation and a continual learning cycle. The agency or system should provide those learning resources necessary to support quality training. The agency should depict its approach to recognized state/provincial and national fire service professional standards programs in its written responses to the performance indicators in this category.
Criterion 8A: Training and Education Program Requirements

A training program is established to support the agency’s needs. The agency provides access to and guidance on educational programs that increase advancement potential and support the agency’s needs.

Summary:
The department’s Training Division consists of a division chief of training, one training captain, and one training lieutenant. The division chief of training coordinates regular meetings with a training program team which consists of six International Association of Fire Fighters (IAFF) Local 1596 representatives, as well as non-represented employees, per Article 11 on page 43 of the 2022-2024 memorandum of understanding (MOU). The training program team is comprised of employees of all ranks within the organization. The training program team assists in the planning and development of training.

The department utilizes Vector Solutions as a training and education document storage location. Vector Solutions also assists the employees in managing their annual training requirements and recertification progress. As required by the Insurance Services Office (ISO), each employee should get 212 hours of training total per year with some of those hours in specific categories. Employees must maintain their level of Emergency Medical Service (EMS) certification on a biannual basis. Vector Solutions tracks the data entered into the system and gives real-time feedback on employee’s progress.

The training program is developed to meet the needs of the employee to recertify with their EMS level and meet the requirements of ISO. The training program provides opportunities for employees to certify in many different areas that meet the minimum qualifications for advancement within the organization. The International Fire Service Accreditation Congress (IFSAC) is the third-party certification for Fire Officer I, Fire Officer II, Fire Instructor I, Fire Instructor II, Fire Inspector I, Fire Inspector II which are taught through Kansas University Fire Rescue Training Institute (KUFRTI).
Performance Indicators:

CC 8A.1 The organization has a process in place to identify training needs, including tasks, activities, knowledge, skills and abilities.

Description
The training program team utilizes internal subject matter experts (SME) to provide training on new equipment or updated equipment capabilities. Observed behavior during incidents or identified deficiencies during a Post Incident Analysis (PIA) helps to identify areas of needed improvement. Additionally, observations during training or skills and simulations assist in developing training for the future.

The training program team along with the Training Division evaluate information from several sources to make recommendations for the training schedule. The organization makes several training opportunities available to employees through the posting of training bulletins. As training becomes available employees are encouraged to attend training outside of the department, as the budget allows.

The operations chief officers work with crews to evaluate performance in areas like search, ventilation, fire attack, etc. Crews are evaluated against the clock to determine which crew is able to accomplish the goal of training in the shortest amount of time while having to hit benchmarks so that no shortcuts were taken.

Appraisal
The department’s emergency medical reporting (EMR) software ESO solutions has the capability to determine the success rate of some skills being performed. The department has used these numbers to evaluate the effectiveness of treatment on the patient’s outcome. Dr. Caleb Trent, the department’s medical director has given a quarterly talk, “Trent’s tidbits,” with all crews and has used these numbers to identify areas of concern which in turn drives training topics.

Employees’ medical skills are evaluated annually by the training division. For employees that return after extended leave, the department utilizes SOP 110.40 Returning After
Extended Leave to ensure the employee can demonstrate proficiency prior to returning to duty.

One area of needed improvement is the using a standardized and vetted format for assessing EMS skills. National Fire Protection Association (NFPA) 1001 sheets are used to evaluate basic fire skills but no formal EMS skills sheets have been used in the past.

**Plan**
The division chief of training and the training program team will work with the department’s command staff to identify training gaps, training and evaluation opportunities, and continue to complete the training schedule, annually. National Registry Emergency Medical Technician (NREMT) skills sheets will be integrated into the process to have a standard to measure the employee’s performance.

The use of ESO software will become more regular and timelier to report the success of EMS skills to employees. The EMS Division in conjunction with the Training Division will develop benchmarks for the success of EMS skills performed. Employees that are unable to maintain the minimum standard will be identified and additional instruction will be used to improve the success rate of the individual. Departmentally, the same metrics will be used to identify those skills that need to be worked on more globally. The department will continue to use feedback from PIA’s and witnessed actions on scene to drive future training topics.

**References**
Training Committee Minutes

*Kansas Board of EMS Statutes and Regulations*

*29CFR 1910.120 (q) (6 through 9): Hazardous Waste Operations and Emergency Response*

ISO Training Category (projected completion of ISO is this fall, this will be available on-site)

National Registry of Emergency Medical Technicians Core Content

NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction incidents (available on-site)
NFPA 1001: Standard for Fire Fighter Professional Qualifications (available on-site)
NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications (available on-site)
NFPA 1021: Standard for Fire Officer Professional Qualifications (available on-site)
NFPA 1041: Standard for Fire Service Instructor Professional Qualifications (available on-site)
Roster of Training Project Team Members
Training Bulletin
SOP 110.40 Returning After Extended Leave
8A.2 The agency’s training program is consistent with the mission statement, goals and objectives, and helps the agency meet those goals and objectives.

**Description**

The mission statement of the agency is “We are committed to saving and protecting lives and property through service to our community.” All fire training is geared towards either taking the fire problem away from the people or taking the people away from the fire problem. All medical training focuses on reducing the suffering, increasing comfort or providing a high level of medical care that allows the patient the best chance possible to survive the most severe medical or trauma incident.

At the end of 2021, in consultation with the training program team and the results of our Internal Stakeholder Survey, the Training Division developed a training calendar for 2022 that provided the following training hours to each fire company:

- 45 EMS CEUs, including all regulatory requirements and hi-fi simulations
- 36 Fire training hours, emphasizing hands-on skills & multicompany evolutions
- 6 hours of Hazmat training
- 12 hours of Technical Rescue training
- Quarterly Blue Card training

Goals were also established for 2022 to:

- Make better use of technology for distance and virtual classroom environments
- Expanding the use of Subject-Matter Experts (SMEs) from the Operations Division

**Appraisal**

There have been several challenges meeting these goals. One of the Training Division members was absent on leave from late February through the end of May. In addition, the department overtime budget prohibits paying overtime to have SMEs teach on their days off or backfill their position on their duty days. After the Training Division returned to full staff, a revised plan was developed in June 2022 that will achieve the following in the second half of 2022:

- 29 EMS CEUs
- 23 Fire training hours
- 6 hours of Hazmat Training
- 1.5 hours of Technical Rescue Training
- Quarterly Blue Card training

The revised plan makes extensive use of the department’s technology resources and will use SMEs as much as possible to instruct on their own shift, limiting overtime expenses. The department is providing more training than compared to recent years, however, the lack of personnel and overtime funding has created a gap in training division outputs.

**Plan**

Regular quarterly meetings of the training program team will assess the training provided in the previous quarter, compared to the goals that were set, to determine any adjustments that may need to be made to upcoming training plans. In the 4th Quarter of 2022, the Training Division and program team will develop a training calendar for 2023, incorporating these lessons learned.

**References**

Original 2022 Training Calendar
2022 Training Calendar Summary
June 2022 Recalibration
Q1 Training Report
2021 LDCFPM Strategic Planning Internal Survey Raw Data
8A.3 The training program is consistent with legal requirements for mandatory training.

**Description**

The training program team utilizes standards of the National Registry of Emergency Medical Technicians (NREMT), Kansas Board of Emergency Medical Service (KBEMS) for the development and delivery of EMS training. The Training Division provides similar training topics to the volunteer first responder agencies within Douglas County. The training program team utilizes standards from the National Fire Protection Association (NFPA), Insurance Services Offices (ISO) and 29CFR1910.120 (q) (6 through 9) for development of fire-related training.

**Appraisal**

The training program is currently meeting legal requirements as required by the State of Kansas and applicable federal regulations.

**Plan**

The Training Division will continue to ensure the training program meets the legal requirements for training and assess changes on an as-needed basis.

**References**

[Kansas Board of EMS Statutes and Regulations](#)

ISO Summary of Training (projected completion of ISO is this fall, this will be available on-site)

National Registry of Emergency Medical Technicians

[29CFR 1910.120 (q) (6 through 9): (Hazardous Waste Operations and Emergency Response)](#)

Email RE: Continuing Education Inspection

HIPAA Completions_10_14_2022_012100

Infection Control Completions_10_14_2022_011900

Educator Update (email)
8A.4 The agency identifies **minimum levels of training and education required** for all positions in the organization.

**Description**
Minimum levels of education and training for all positions in the organization are well documented and available to all members. SOP 108.20 Firefighter Recruit/Probationary lists the training and education requirements for recruits and probationary firefighters. This SOP was last revised in 2022. SOP 601.10 Promotional Assessment Process lists the training and education requirements for firefighter, paramedic, engineer, lieutenant, captain, battalion chief, and division chief. This SOP was last revised in 2020. SOPs are posted to the department's intranet, which can be accessed at any time by all department members.

The city maintains job descriptions for all positions within the organization. These job descriptions include detailed explanations of the knowledge, skills, and abilities (KSAs), as well as the required training and experience for each position within the organization. Job descriptions can be accessed on the city’s intranet.

The department has documentation to provide career path guidance for employees. This includes the IAFC Officer Development Handbook (2010 edition) and an accompanying Professional Development Handbook created by the department in 2009. The Professional Development Handbook lists recommended training and experience in preparation for the positions of firefighter, engineer, and acting officer, which includes both hands-on experience and self-study through a recommended reading list.

**Appraisal**
Department SOPs have clearly established minimum levels of training and education for each position in the organization.

No clear workflow has been established to ensure the city job descriptions are updated and accurately reflect current roles.
While over 10 years old and in the process of being revised, the IAFC Officer Development Handbook is the most current version, and the LDCFM Professional Development handbook was written to accompany this handbook.

**Plan**

The department will continue to review and revise promotional requirements on an annual basis, as defined in SOP 104.02 Standard Operating Procedures (SOPs) and Policies Life Cycle. The department will add a step in the workflow for this process that City Human Resources should be notified any time a promotional requirement is changed, to ensure job descriptions stay current. When the next edition of the IAFC Officer Development handbook is published, the Training Division will form a project team to review and revise the department’s Professional Development Handbook.

**References**

SOP 104.02 SOP Lifecycle Management
SOP 108.20 Firefighter Recruit Probationary
SOP 601.10 Promotional Assessment Process
City of Lawrence Fire Engineer AEMT/BASIC/Paramedic Job Description
LDCFM Professional Development Handbook
IAFC Officer Development Handbook
Criterion 8B: Training and Education Program Performance

Training and education programs are provided to support the agency’s needs.

Summary:
The department conducts a 12-week recruit academy for all entry-level hires, which includes IFSTA Firefighter I/II, Hazmat Awareness, and Hazmat Operations, as well as medical orientation and practical instruction on departmental policies and procedures. Ongoing training is provided at the individual, company, shift, and department level, based on legal/administrative requirements, continuing education requirements, and assessed department needs.

Training is provided to department employees in a wide variety of formats which includes self-study, individual instruction, in-person lectures, small-group simulations, multi-company evolutions, and remote/virtual courses. All training is documented and tracked to ensure compliance with departmental standards and individual/organizational requirements.
Performance Indicators:

8B.1 A process is in place to ensure that personnel are appropriately trained.

Description
The Department has established minimum requirements for entry-level hires in SOP 108.20 Firefighter Recruit Probationary. This SOP defines a standard for the recruit academy as a “multiweek structured learning environment providing basic requisite knowledge in firefighting and emergency medical response.” Longstanding departmental practice has been that the recruit academy is approximately 12 weeks long, and all students receive instruction in International Fire Service Training Association (IFSTA) Firefighter I, IFSTA Firefighter II, Hazmat Awareness, and Hazmat Operations and practical, hands-on training in fire and emergency medical operations. During the academy, recruits receive frequent tests and quizzes to ensure they are retaining the information they receive.

After the academy, graduates are considered probationary firefighters for their first six months of employment. During this period, the understanding of their role and the training they received in the recruit academy will be monitored by their assigned captain and they will receive a formal performance appraisal at six months to confirm they are ready to be released from probation.

After being released from probation, the department ensures members receive appropriate training on an annual basis. The department has established a standard to comply with ISO standards for firefighter training that include on an annual basis a minimum of:

- 192 hours of company training
- 18 hours of facilities training
- 12 hours of officer / driver training (does not apply to Firefighters)
- 6 hours of hazardous materials training
The department mandates all members maintain current Kansas EMS certifications, which requires each member to receive on a biannual basis Kansas Board of EMS-approved continuing education at a minimum of:

- **Paramedic:** 32 Core hours + 28 Flex hours = 60 total hours
- **AEMT:** 27 Core hours + 17 Flex hours = 44 total hours
- **EMT:** 21 Core hours + 7 Flex hours = 28 total hours

The department uses a web-based application, Vector Solutions, to track employee progress toward fulfilling minimum training hour requirements, as well as additional credentials for specific employees, such as fire investigators. Training plans are in place to guarantee all employees are provided well over the minimum EMS hours on duty, as demonstrated in the “2022 Training Calendar Summary” document that was created in late 2021 after the initial 2022 Training Calendar was developed.

**Appraisal**

In recent years, the department has made several major changes in recruiting and onboarding new employees. Prior to that time, new firefighters were assigned to an “Extraboard” list, and after the Recruit Academy were part-time employees until a full-time position opened up. This allowed larger, less frequent recruit academy classes to be conducted. Now that all new hires are full-time employees, recruit academy classes are small but more frequent, sometimes two in a calendar year. The recruit academy format has been adjusted to take these changes into account but has not been subject to a formal top-to-bottom review and revision for many years.

In 2021, the department began requiring all new employees to achieve paramedic rank within 3 years of joining the department. While a small number of new employees would historically enroll in paramedic school, this is now the “new normal” for all employees who are not paramedics. The department is still experimenting with best practices to onboard new employees under these conditions.
The department tracks existing full-time employee fire training hours through credentials on Vector Solutions for ISO categories of Firefighter, Driver-Operator, and Officer. In 2021, the majority of employees in each category completed 100% of their ISO hours. The overwhelming majority of employees (84% or more in each category) completed 90% or more of their required hours.

**Plan**

The Training Division will continue to monitor the progress of employees toward fulfilling training requirements, making notifications to employees and their supervisors on the individual / company / shift level, but also being alert for global trends that may indicate structural issues or communication barriers. Prior to developing the 2023 Training Calendar, the Training Division will review the initial and revised 2022 training plans and create a plan for enhancing the calendar schedule.

**References**

SOP 108.20 Firefighter Recruit Probationary
Kansas Continuing Education Plan – Kansas Board of EMS
Paramedic Credential – User Progress Summary
X Shift EMS Hours Summary
X Shift EMS Progress
2022 Training Calendar Summary
July 2022 Summary Chart
2021 ISO Driver Operator hours
2021 ISO Firefighter hours
2021 ISO Officer hours
8B.2 The agency provides a training schedule that meets the organization’s needs.

**Description**

In the last quarter of each year, the department creates an annual training plan for the upcoming year. This plan incorporates mandatory and discretionary training subjects, with the advice of the training program team. Throughout the year, the training schedule is dynamically adjusted as needed based on the needs and abilities of the department. Progress toward achieving the goals of the training schedule is reviewed quarterly with the training program team.

In preparation for creating the 2022 training calendar, the Training Division conducted a review of training that was required to be provided. (“2022 Training Required Training Sessions”). All topics listed in this document have been taught annually as a matter of course, but there was no centralized list documenting all training that was required on an annual basis. This document listed all known training subjects that the department was required to provide on an annual basis but does not provide any sources for these requirements.

The Training Division utilizes a reference document to create an annual training plan.

**Appraisal**

The training schedule is well-developed, communicated to members well in advance, and ensures the department’s needs are met. The draft training calendars, created prior to the beginning of each year, are frequently altered based on changing circumstances and unforeseen events. The Training Division recognizes the current process as being time-consuming and could be more efficient by tallying the number of training dates / hours available to each shift in the upcoming year and planning accordingly. An outline for the number of days to provide each training course could be adopted. On a quarterly basis, the training calendar could be adapted as needed with input from the training program team.

Creation of a centralized document listing all mandated training was a good step toward ensuring the department is providing all legally required training. This document was used in creating the initial 2022 training calendar, and all revisions to that plan. This document
could be substantially improved by listing the source of the requirement (requiring authority, and link to the relevant documentation). This would enhance the Training Division’s ability to annually review all legally mandated training requirements by going directly to the source and updating the list as legal requirements change over time.

**Plan**

In the fourth quarter of each year, the Training Division and program team will review all mandatory training sessions for any changes. Based on mandatory training requirements, established training goals, and assessed needs, the training program team will develop an outline for the training sessions to be delivered each quarter of the year. Training progress will be reviewed on a quarterly basis.

By the end of 2022, the “2022 Training Required Training Sessions” document will be revised and updated to include the agency/law/standard that is the source of each legally mandated training requirement, and a link to the exact text of the requirement. This document will be used to develop the 2023 training calendar. This document will be reviewed and revised annually and used to develop each year’s training calendar to ensure the department remains in compliance with all legally required mandatory training.

**References**

2022 Training Calendar – 2.0
Q1 Training Report
June 2022 Recalibration
The agency evaluates individual and crew performance through validated and documented performance-based measurements.

Description
All training sessions are delivered with the expectation that individual and/or crew performance will be evaluated and corrected, if necessary. The basis for evaluating crew and individual performance is compliance with department policies, procedures, and training documents, as well as industry standards. All EMS training courses for continuing education include documented course objectives that the student must meet to receive credit. Fire training also establishes course objectives for individuals and/or crews.

Student participation in real-time live / remote training is documented and verified by the instructor. Asynchronous training requires students to successfully complete a knowledge verification test over the material presented. Mandatory training sessions for individual employees receive additional documentation. Employees’ EMS skills are verified on an annual basis, as is their driving competency on both a road and cone course, as required by NFPA 1002.

Appraisal
Performance measurements can be divided between qualitative measurements (was the skill performed successfully?) and quantitative measurements (how long did it take to perform the skill?). The Training Division has always retained records of qualitative performance of employees during training to provide critiques and feedback, and to provide summaries of common issues to the department following the training sessions. The Training Division has been less successful at collecting meaningful quantitative measurements, especially during more complex training sessions & scenarios. This is in large part due to the limited number of personnel assigned to the Training Division. The result is often a single member of the Training Division conducting training sessions unaided. The instructors are often task-saturated which creates difficulty in time-keeping and crew evaluation.
The department is waiting for delivery of the REALITi Pro cardiac monitor simulator system, which includes the ability to perform video debriefing and get precise timestamps for many performance benchmarks. This will improve quantitative measurements at most EMS training.

No single off-the-shelf solution exists for fire/rescue training scenarios, but this is a known issue, and the Training Division has taken steps to address it. Radio traffic during training sessions is being recorded and will be provided to Blue Card trainers on each shift to review during quarterly Blue Card training. Fundamentally, the solution is to have additional staff at training scenarios, and the Training Division has requested additional personnel to meet this need. Additionally, the Training Division is working to have more training provided by subject-matter experts on each shift. This would free the Training Division to take a step back and focus on accurate timestamps for each benchmark.

Attempts are made to measure crew performance at training sessions and communicate this to department members, but precise measurement of performance is often inadequate due to low instructor staffing, and this is not always performed on a consistent basis. When training scenarios are delivered multiple times, attempts are made to document consistently observed issues across the department. When measurements are performed, they are shared via email to the department. Additional personnel would help improve the ability to provide timely feedback on performance measures.

**Plan**

The department will continue to establish training objectives for all service provisions. After each training session, the trainers will make brief notes for the next session as to what worked and what did not, including any suggested changes to the performance measurements being used. The Training Division will continue to request additional personnel to ensure accurate performance measures are taken. The Training Division will continue to put out summaries of “lessons learned” after each training session, in part to create a record for the next time that subject is repeated that will inform the training and performance objectives.
References
May S&S Course Objectives
Dept High Rise Plan - page 3
July 2022 – Active Shooter Test – sample
Sept Skills & Sims notes
X Shift Times @ Acquired Structure
X Shift Jayhawk Motel times
LDCFM Airway Skills Sheet
Competency - Obstacle Course Verification
Road Course Station 1
8B.4 The agency analyzes student evaluations to determine reliability of training conducted.

Description
The department uses evaluations for all EMS classes for internal training review / improvement. The Kansas Board of EMS requires the ability to submit anonymous evaluations for EMS trainings. An electronic evaluation is utilized when training is completed through Vector Solutions, otherwise, paper evaluations are used. Informal debriefings are held after multi-company training operations events.

The evaluation form is used routinely and with no difficulties for EMS CEUs but is not a routine part of department-level fire and rescue trainings. These evaluations are reviewed informally by the instructor(s) after the training sessions for any insights on their instructional techniques. The intention is that these evaluations will also be reviewed for suggestions and improvements in subsequent years when the subject is repeated, for suggestions and improvements. The Training Division is currently reviewing its processes and documenting its workflows to ensure greater consistency in the future.

Appraisal
The training evaluation form is adequate and results in good feedback to the Training Division. The Training Division has been diligent about ensuring such evaluations are available for EMS CEU education, and that these evaluations are retained and reviewed prior to repeating a training session. Similar evaluations should have been provided for all non-EMS CEU training as well, but this has not happened at all fire, rescue, etc, training sessions.

Plan
The Training Division will establish a clearer workflow for non-EMS training that will ensure an evaluation is created for each class. Evaluation responses will be reviewed by the instructor(s) and saved in the department’s shared network folder. These will be reviewed by the Training Division and any subject-matter experts each time a training topic will be repeated from prior training sessions. Student feedback will help determine
the specific training objectives/scenarios and identify any aspects of the prior training sessions that worked well or need improvement.

References
Zoll Z-Vent Department Training – Course Evaluation
8B.5 The agency maintains a training records management system that meets its needs.

Description
Training records are maintained for department employees in up to three locations, depending on the type of record. Under the Training Division network folder, a subfolder for each employee has been created to store all training certificates, certifications, licenses, etc. This folder is backed up by multiple servers at different locations for redundancy. Network permissions are configured so that only the Training Division can add/remove files from this directory. All other department employees can view/copy materials from the files.

Training records are also stored in the department’s online Learning Management System (LMS), Vector Solutions. Each employee has an account in this program, which is configured and maintained by the Training Division. This LMS includes the ability to create customized activities, record completions of those activities, set up credentials and monitor user progress toward those credentials, verify employee activities and training records, and scan in training certificates. This platform is also used to store selected certifications, licenses, and other documents to employee profiles, generally those that require renewal or are required for promotion.

The Kansas Board of EMS (KBEMS) maintains an online Portal for EMS continuing educations training records. As a KBEMS-approved Long Term Program Provider of continuing education, the department has been granted the ability to register training classes, submit supporting documentation, and submit training records for students directly into the KBEMS record system. While the department does not control this system, all training classes put on by the department that provide EMS CEUs are entered in this system by the Training Division within seven days of the training course.

Appraisal
The training records management system(s) are functioning well and meet department needs. One area for improvement is that there has not been consistent naming conventions for the documents stored on the employee network folders. The same document may be
called different things in different employees’ folders. This can create a challenge when verifying employees have completed all requirements for promotion to a given rank. Discussions of how to implement a credentialling system that would simplify this issue have been started with Vector Solutions staff but have not been implemented.

Also, due to lack of staff time, a backlog of old activities remains active in Vector Solutions, rather than being archived in a timely manner. This makes navigation in some areas cumbersome and risks accidentally recording completions in an obsolete activity.

In years past a combination of unclear workflow and unintentional deviation from KBEMS expectations had resulted in some confusion and discrepancies in records. However, after a meeting with KBEMS officials in late 2021, the Training Division substantially revised our forms, documentation, and workflows, and the most recent audit was passed with zero deficiencies.

**Plan**
The Training Division will continue to monitor the efficacy of the records management systems that are being used and seek efficiencies. When staff time permits, the Training Division will work on implementing a process by which all certificates and other documents required for promotion are added to Vector Solutions credentials, which permit easy querying via reports, regardless of the name of the underlying file. The Training Division will also maintain contact with the KBEMS to ensure our record-keeping practices align with their expectations in the future.

**References**
Employees2009--DarlingJ
Vector Solutions – Driver-Operator Credential
Briggs DO Credential Progress Summary
Vector Solutions – DO Credential Report
KBEMS Training Audit 2022
CC 8B.6 The agency conducts a formal and documented program appraisal, at least annually, to determine the program’s effectiveness and compliance with meeting the needs of the organization.

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 Training Program Appraisal
Criterion 8C: Training and Education Resources

Printed and non-printed training and education resources, library materials, media equipment, facilities and staff are available in adequate quantity, relevancy, and diversity, and are current.

Summary:
Ensuring all firefighters maintain proficiency in responding to all hazards requires a significant investment in printed materials, books, A/V and technology resources, as well as physical locations and staff for training. The Training Division maintains a small library of training books and materials for both formal training classes and informal review by individuals or companies. These materials are updated as new editions of books are published. During the COVID-19 pandemic, the Training Division expanded its use of technology and media resources, and now provides much more remote and virtual training opportunities.

Physical locations for training include a dedicated training center, with an attached drill field and training tower. These are adequate for most purposes, and the department has identified alternate locations for training that cannot be performed at that facility, and built relationships to ensure access to those alternate sites. In addition, the Training Division and other firefighters regularly build training props for specific training sessions, many of which can be disassembled and reused for other training sessions. Storage space is a major concern.
Performance Indicators:

CC 8C.1  **Facilities and apparatus are provided** to support the agency's all-hazards training needs. The agency has plans addressing any facilities and apparatus not available internally to complete training activities.

**Description**

The department's training facility is a former fire station that has been remodeled to include a training classroom, an office, a large and small locker room with attached restrooms, a small storage room, and a bay that will hold 3 fire apparatus/ambulances. Co-located with this facility is a 150’ x 180’ drill field, an enclosed trench / confined space prop, and a 4-story drill tower with a burn room on the first floor. There is very little space for covered / climate-controlled storage at this facility.

This facility is also the location for department recruit academies. Because the training facility only has a single classroom, it is not available for department training during a recruit academy. The academy is approximately 12 weeks in duration, and is held once or twice per year. The training center is unstaffed except during recruit academies, as all members of the Training Division currently work in the administrative building.

Apparatus assigned to the Training Division include 3 staff vehicles and a trailer. The trailer does not have a sheltered storage location and is exposed to the elements year-round. None of the Training Division staff vehicles have a tow hitch, so in order to use the trailer, the Training Division must borrow a utility pickup truck from Station 1. The Training Division uses the utility pickup truck to haul pallets, lumber, and other building supplies for live burns and training props.

**Appraisal**

The training facility is generally adequate for most needs but can only host one class at a time. As training needs and staff numbers continue to grow, additional classroom space will be needed. During a recruit academy, classroom training sessions for the department must be held in another location, usually the Jayhawk Room at the administrative
building. This can cause complications with the training schedule, as the room can be reserved for use by community organizations months in advance, which can reduce the days available to provide needed training.

Having the training center unstaffed the majority of the time may not be optimal, as it can allow any issues with the facility to go undetected and unreported. It also means no member of the Training Division is on hand to supervise/assist with training that is performed by individual companies / shifts at the facility.

When built, the drill field was large enough for engineer training and other events, but as truck size has increased it is no longer large enough. The department recently purchased a 62-foot tractor drawn aerial which requires a significant amount of training for each new driver. Contractors hired to train-the-trainer stated an open area 210’ x 290’ was needed to set up cone courses to orient new drivers to the truck before they use it on the roadway. Locating an uninterrupted expanse of pavement that size in the community without light poles, islands, etc, that can hold up to the weight of this vehicle has been extremely challenging and obtaining long-term access to a site that is available at any point should be a priority.

The drill tower is adequate for basic training but has several drawbacks. All windows are over concrete which presents a higher risk when practicing ingress/egress/victim removal/bailouts than if they were over grass or another softer surface. With few interior walls, interior partitions are created by assembling pallets, which can allow members to look over them. Lack of interior doors means members do not gain practice isolating rooms from smoke and fire. It also lacks many built-in props for special activities such as forcible entry, roll-up doors, etc. Many of these issues have been overcome with training props that have been built by motivated department employees. Often, these props are of high quality, but because storage space at the training facility is extremely limited, they cannot be sheltered from the elements and degrade over time.

Plan
The Training Division will work with the department to review its policy on use of the Jayhawk Room by community groups to ensure that we are prioritizing training to meet the primary mission of the department, while also respecting the needs of community groups, especially during recruit academy periods.

The Training Division will consider stationing the training captain and lieutenant at the training facility, especially during times no recruit academy is being held.

The Training Division has requested a large storage unit and a utility pickup through the budget process and will continue to advocate for these resources. The Training Division is still working to identify a short/medium-term solution to a training site for the tiller cone course and will work to ensure the next fire station to be built will have an area of concrete paved large enough to support the tiller training as well as other annual driver training. Through the budget request process, the department will continue to communicate the need for more resources within the Training Division.

References

Jayhawk Room Conflicts
Possible sites for tractor drawn aerial cone course
Map of roadway closures needed for annual EVO training
2023 Program Improvement Request Form LDCF M Support Services
CC 8C.2 The agency has access to instructional personnel, within the organization or from identified external resources, with teaching qualifications and expertise to meet its needs.

Description
Training Division staff all hold the rank of lieutenant or higher. Prerequisites for these ranks include IFSAC Instructor 1, IFSAC Fire Officer 1, and several other professional certifications. These credentials, combined with on-the-job training, course feedback, and coaching from the division chief of training ensure all Training Division members have the qualifications and expertise necessary to deliver effective training sessions.

Many other department employees have the necessary qualifications and expertise to serve as training instructors. However, funding often does not permit routine use of overtime to allow employees to teach classes on their days off, nor can the department fall below minimum staffing to allow the instructor to attend training. Department employees who work a 24-hour shift schedule are generally only able to serve as instructors while working on their assigned shift.

Additional instructional personnel are readily available outside the department. The department's response area is adjacent to Johnson County, Kansas, which contains many Kansas City suburbs and. Johnson County has nine major fire/EMS agencies that provide emergency services to different regions within the county. The Training Chiefs of these agencies meet regularly and develop a coordinated training schedule for both EMS continuing education and fire service certifications. The department’s division chief of training has started attending their meetings with the objective of coordinating training classes to provide the most opportunities to all firefighters in the area.

Lawrence is also the site of the University of Kansas Fire & Rescue Training Institute (KFRTI). This is an IFSAC and Pro Board –accredited instructional service established by the Kansas legislature to provide training to Kansas fire departments. While KFRTI provides training to departments across the state, being based in Lawrence, the department
has a significant advantage in terms of additional instructional staff for a wide array of fire service certifications.

**Appraisal**
The department has many employees at all levels of the organization who are subject matter experts (SMEs) on different fire / EMS subjects. These individuals are often not used to their maximum potential to deliver consistent training to the entire department, due to overtime constraints against paying them to come in on their days off. Even when these SMEs are on duty, we cannot count on them being able to teach as they will be needed to fulfill a riding position for minimum staffing, and so they may be called away. The solution has been to have one employee per shift acting as a trainer, with an employee of the Training Division on standby, to step in if that member is unavailable. However, multiple instructors make it much harder to deliver consistent training and the need to have a Training Division member present / available for all training inherently limits the training output to what a small number of employees can support.

Integration of certification class efforts with Johnson County Training Chiefs is a major step toward increasing the availability of these courses for the department’s employees. Further integration will ensure more employees have more opportunities to obtain certifications for professional development and promotion.

The department has taken advantage of KFRTI for many years, but generally for classes relating to professional certifications. This organization also offers classes on technical rescue disciplines and other practical skills taught by qualified instructional personnel at no cost to the department.

**Plan**
The best training will always be from subject-matter experts who are intimately familiar with our department’s policies, procedures, equipment, and recent history. As such, the Training Division will work to develop plans by which department SMEs can be made more available to teach training courses to all department members. This could involve
creating a dedicated overtime budget for training classes or creating a policy that allows on-duty personnel to teach classes while available for major incidents (like how Night Consultants and other incentives are able to work away but retrievable from their assigned units in order to support the department’s mission).

The department will also continue to attend Johnson County Training Chiefs meetings and work to integrate the certification courses that are offered by the department with those offered by the Johnson County departments. The goal will be to ensure that the department members have just as much /early chance to attend classes hosted in Johnson County as any member of a Johnson County department.

The department will also work to further leverage the proximity of KFRTI to provide additional training to the department. During the development of each years’ training plan, as subjects for training are identified for the upcoming year, the Training Division will consult with KFRTI staff to see what subjects might be taught by their instructional staff.

References
SOP 601.10 Promotional Assessment Process
June 2022 Recalibration Announcement to FireMed
January H.O.T. - Building construction – instructors
Engine Company Operations
High Rise Training Planning Meeting
https://lpe.ku.edu/kufire-home
8C.3 Instructional materials are current, easily accessible, and support the training program’s stated objectives.

Description
The Training Division maintains a library at the administration building with instructional materials such as magazines, videos in various formats, and other printed materials. The materials in the library have accumulated, in many cases over multiple decades.

The training library also includes textbooks for fire service training courses. Employees can check out books while enrolled in a course and then return them when completed. Access to the library is limited to the Training Division. Tracking who has custody of a given book is done using physical library cards. Textbooks are removed if they are identified as having been superseded by a later edition, but no formal process for regularly deaccessioning outdated materials has been established. In recognition that new book editions come out regularly, and to avoid old book editions accumulating the Training Division has recently revised textbook purchasing policy to purchase new textbooks for each member enrolled in certain classes and allowing them to keep those books after the class has concluded.

In the last two decades, instructional materials have been increasingly distributed and stored digitally. Three main locations in which instructional materials have been stored/distributed are the department’s network folders, the department’s intranet, and department email. Collectively, these locations contain large numbers of instructional materials on many subjects in a variety of format. Many of the instructional materials, manuals, etc. are retained through the institutional knowledge of individuals, and distributed when the need arises by email or other methods.

In addition, the department has not established any alterative type(s) of documents other than SOPs to officially memorialize information for reference, retention, and regular review. Therefore, training information is often incorporated into SOPs, as these have been the only documents produced by the department that are universally accessible and reviewed/revised on a regular basis.

Appraisal
With respect to physical media, the training library contains valuable instructional materials including textbooks for required classes. It also contains many obsolete materials that take up space and make it harder to find desired in-date materials.

The department’s digital media has a wealth of instructional and reference materials, but several issues keep them from being used to full advantage. These materials are not optimally organized, being dispersed throughout the organization rather than hosted at a single location. The lack of a central location for instructional materials has prevented the establishment of a workflow for regular review, revision/deprecation, and version control. This makes it difficult to ensure the most current instructional materials are being used/followed, especially when individuals or companies attempt to locate materials for conducting additional training on their own initiative.

Instructional materials that have been produced in-house over the years have been created, formatted, and used inconsistently. This is because the department has not formally established any type of documents for containing instructional materials, nor routinized the use of such documentation through practices such as referencing instructional materials in SOPs. Instead, information on a given subject has often been incorporated into department SOPs. While SOPs retain information in a location it can be easily found, it creates other issues. When SOPs are essentially the only documentation on a subject, the result is SOPs that are overly long, with essential information buried within minutia and step-by-step task-level instructions.

**Plan**

The Training Division will work to identify any instructional material needs, with input from the command staff and the training program team. Identified needs will be prioritized and either purchased or, if immediate purchase is unfeasible, noted for inclusion in an upcoming budget.

The Training Division will work with command staff to explore methods for creating one or more types of documents to supplement department SOPs. This will provide a systematic method of storing instructional materials in a format other than SOPs, allowing them to be more flexible in response to changing conditions, while also decreasing the
length & complexity of SOPs. These documents will be stored in an accessible location where they can be regularly updated to ensure version control is maintained.

When time/personnel permit, the Training Division will conduct an inventory of the training library and dispose of obsolete materials, to be repeated on a regular basis.

References
Training Library Cards
Re Textbook purchases for accreditation
Ladder_Aerial testing June 18-20 email
SOP 109.33 Mandatory Overtime Staffing
The agency has a process for purchasing, developing or modifying existing curriculum to meet its needs.

**Description**

Annually, the department creates a training plan for the upcoming year that is designed to cover all mandatory training topics as well as those identified to be taught on an annual/regular basis by the command staff, Training Division, and training program team. Depending on the training course, some instructional materials are obtained pre-formatted from outside sources (e.g., slide decks, textbooks, etc.), while others are developed in-house. Textbooks are purchased as needed, when new editions are published, and the Training Division budget is adequate to accommodate these purchases.

With respect to training courses developed and delivered in-house, instructional materials and curriculum are developed with the assistance of SMEs identified by the training program team and operation chief officers. Meetings to develop curriculum are held between the SMEs for each shift, supported by the Training Division and training program team. While this process can incur minor overtime costs, it is supported by the Training Division in order to ensure the best curriculum is developed and taught as consistently as possible across all three shifts, despite often using different instructors for each shift.

**Appraisal**

The department has a purchasing process that is adequate to provide or develop curriculum needed to support our organizational goals. Funds for necessary textbooks to support members attending training has been readily available and within the scope of the department budget. Overtime funds are sufficient to cover incidental uses of overtime to review/develop course curriculum by SMEs from each shift who are designated to act as trainers for a course.

The process of having the SME trainer help the Training Division develop the curriculum for each upcoming class has resulted in a superior curriculum, compared to one developed by the Training Division, alone. But due to the low staffing levels of the Training Division, staff time is at a premium and so often these meetings to review/develop the curriculum are scheduled in haste in close proximity to the training dates. In addition,
while the use of SMEs from the Operations Division as instructors is a great benefit, the overtime restrictions that surround their use (can only be used on duty and must remain available to run calls so a Training Division member must be available to fill in if they are called away) results in less consistent training than if the same individual(s) taught all three shifts. Increasing Training Division staffing and setting aside funds to pay overtime for SMEs to teach off-duty (or backfill them on their duty shift) would improve our ability to develop, modify, and deliver training curriculum.

The inconsistencies in how training curriculum and materials were stored in the past is an ongoing issue. While this process has been made more organized in recent years, the organization method is not documented in writing, so the same issue is likely to continue to occur in the future unless staff time is devoted to improving workflow documentation. This issue would also be easier to address with additional personnel in the Training Division.

**Plan**
The Training Division will re-evaluate its purchasing practices for training curriculum and textbooks on an annual basis. The Training Division will seek support for additional personnel to aid in curriculum development, analysis, and review, as well as a dedicated overtime budget for SMEs. Through the budget request process, the department will continue to communicate the need for more resources within the training division.

The Training Division will create written documentation specifying how training curriculum and supporting materials are to be stored on the network folder to ensure these items are retained for use in the future. The Training Division will also create written documentation to support the need for routinely seeking retrospective notes on training sessions and curriculum from the instructors, as well as specifying a location for these notes to be stored.

**References**
Forcible Entry HOT Kick-Off Meeting
2022 High Rise Refresher

NOTES FOR NEXT TIME

Training Course Materials – 2022 folder
8C.5 Equipment utilized for training is adequately maintained in accordance with the agency’s operational procedures. The agency makes training equipment readily accessible to instructional personnel.

Description
The department maintains an extensive cache of training equipment and resources that is available for use by employees of the department. The Training Division adheres to department SOP 402.10 Property Use and Use of Department Equipment.

The Training Division is currently assigned 3 staff vehicles (2015 Ford Interceptor SUVs), one for each member of the division. These vehicles are operated in accordance with SOP 104.31 Staff Vehicle Use. Based on their age, these staff vehicles are at least 50% through their expected life cycle, but remain in generally good condition, receiving regular preventative maintenance through the City Central Maintenance Garage. The Training Division has an uncovered 1987 trailer which is stored outside on the training facility drill field. The trailer is stored there because there is no interior storage location for it, and none of the vehicles currently assigned to the Training Division has a tow hitch. If a Training Division staff member needs to move/use the trailer, they must first travel to a different station and borrow a utility pick-up to take to the training facility to then operate the trailer.

Manikins and other materials such as expired medications/medical supplies are stored at the Training Center and regularly made available to members for training at the department, company, or individual level upon request.

Appraisal
While the vehicles currently assigned to the Training Division remain adequate to their purpose, all three are seven years old so replacements will be needed in the next few years. At the time of replacement, it would be worth considering changing the type of vehicle assigned to the Training Division. In addition to being unable to haul the trailer assigned to the division, Training Division staff vehicles are often inadequate to perform other tasks that are necessary for Training Division activities, including hauling pallets, training
props, and other large/bulky items. Replacing the current staff vehicles with pickup trucks, with hauling capabilities, would reduce the amount of time utility vehicles must be borrowed from the Operations Division to fulfill the Training Division needs.

The department’s training facility is in relatively good condition and has recently seen substantial investments in its improvement. Adding additional covered storage for the trailer, training props, and other supplies would further enhance our abilities to maintain training equipment in accordance with established procedures. Training Division employees being relocated to the training facility would increase the department’s ability to monitor and maintain the drill tower and the inventory of training manikins, props, and expired training supplies.

**Plan**

The Training Division will begin planning for replacement vehicles by the end of the year and strongly consider pickup trucks to replace these staff vehicles. The Training Division will also suggest changes to SOP 104.31 Staff Vehicle Use at the appropriate review cycle.

The Training Division will consider assigning at least one employee to the training facility in 2023. This employee will monitor the condition of the training center, drill tower and training props in order to make early interventions. The Training Division will continue to request the construction of additional storage space through the budget process.

**References**

SOP 402.10 Property Use and Use of Department Equipment
SOP 104.31 Staff Vehicle Use
8C.6 The agency maintains a current inventory of all training equipment and resources.

Description
No formal inventory process is in place, nor is there an established workflow to add equipment and resources into an inventory list when purchased nor removed them from the inventory when decommissioned.

The only department employees who regularly use the Training Division’s equipment and resources are the three employees assigned to the division. The equipment and training resources are generally stored at the department’s training facility.

Appraisal
The Training Division’s management of training equipment and resources has been sufficient and is easily maintained. Until recently, the department used Firehouse software as a database for inventory and tracking of equipment and resources. This software is being discontinued in favor of a software solution from ESO that has not yet been implemented. Some equipment items assigned to the Training Division are cataloged in specific lists that are kept current. An example of this is the list of all department vehicles, which includes all vehicles assigned to the Training Division.

Plan
A long-term solution is on the horizon (ESO Fire Asset Management) and the Training Division should be prepared to implement it as soon as it becomes available. The Training Division will participate as a stakeholder in planning and implementation meetings in preparation for implementing the ESO Fire Asset Management software. The Training Division will maintain awareness of the status of this project, as well as the capabilities and limitations of the software.

The Training Division will discuss policies and plans for managing assigned assets as well as the frequency of inventory checks desired. This information will be compiled into workflow(s) in preparation of the software going live. Once a go-live date has been
determined, the Training Division will monitor the training calendar and make adjustments as needed to ensure all assigned inventory is entered in a timely manner.

References
Vehicle Listing 600 Series 1_2020
ESO Fire Implementation Asset Management and Inventory Team
8C.7 A selection process is in place for training and educational resource materials.

Description

Many educational resource materials used by the department are selected by outside organizations, such as fire service credentials which require the most current IFSTA textbooks. Often, the department requires these credentials for employment or promotion, such as IFSAC Firefighter I/II, which is required for all employees and taught during the recruit academy to all new hires. These requirements are established by department SOPs.

Another educational resource available to employees are online courses in Vector Solutions. Vector Solutions has over 100 hours of EMS continuing education content that is accredited by the Commission on Accreditation for Pre-Hospital Continuing Education (CAPCE). These CAPCE classes are all selected, reviewed, and improved regularly by Vector Solutions staff. These classes can be assigned to all department employees (ex: mandatory annual training) or by self-assigning.

The department currently partners with the nine fire/EMS agencies in neighboring Johnson County, Kansas to participate in their “Skills and Sims” program. In this program, three hours of high-fidelity simulation training is delivered quarterly to each Operations company. The ten agencies participating in this program take turns developing the scenarios, which are then reviewed and revised by the Johnson County Medical Directors’ office. The result is that the department and all other participating agencies can annually deliver 12 hours of high-fidelity scenario content to their employees, all of which has been selected and reviewed by a medical director, while only having to do the work of developing two or three scenarios.

Appraisal

The use of IFSTA textbooks has been effective. CAPCE classes continue to be a valuable resource for ensuring members have access to a wide variety of EMS CEUs in all categories necessary to renew their provider certifications. However, for these classes to count, each member must submit them individually to the Kansas Board of EMS (KBEMS). As this is a departure from all other EMS training provided by the department,
this has caused some confusion as some employees failed to understand, or comply with, this requirement.

The Skills and Sims program has been a success. Instructors report much higher levels of student participation and engagement, and course evaluations are overwhelmingly positive. The only critiques have been requests for even higher-fidelity simulation materials, which the iSimulate REALITi Pro system should help achieve. Simulations could also be more effective if individuals can be identified to serve as standardized patients during training sessions.

Plan
The department will continue to use the latest edition of IFSTA textbooks as required by the organizations providing training courses for fire service certifications. The department will continue to use / encourage members to use the CAPCE classes on Vector Solutions to supplement the EMS CEUs provided by the Training Division. The Training Division will continue to work with Vector Solutions and KBEMS to identify methods of streamlining data entry, especially for CAPCE classes and self-paced classes that are posted to the Vector Solutions.

The department will continue to produce content for Skills & Sims and provide quarterly simulation training from scenarios developed through this program to each crew. More realistic simulations will be provided by the recent REALITi Pro cardiac monitor & patient simulator purchase. Additional means of increasing simulation realism, such as through standard patients, will be explored, as will improved feedback through video review of training scenario performance.

References
VectorSolutions Emergency Medical Services CAPCE Course Catalog
Simulation materials and year-end funds
Gaumard quotes
FW 3B Scientific Quote SQ2218708
CC 8C.8 Training materials are evaluated, at least annually, to reflect current practices and meet the needs of the agency.

Description
Training materials used in formal classes, such as textbooks, are evaluated and revised with each new edition. Material that is utilized for department-wide training is reviewed and revised before each annual session. However, training materials are typically not reviewed or updated between the end of one training session, and the beginning of planning for the next department-level training. Some subjects are not taught every year, so it can be several years before training materials covering them are revised.

When new training materials are developed in a vacuum, without considering what other training materials, SOPs are affected by the changes. The result can be multiple documents giving contradictory instructions. These issues can complicate efforts by the Training Division to ensure training materials in development reflect current practices.

Appraisal
The use of the latest edition of textbooks for fire service courses is adequate. The training materials developed and used by the department are of very high quality, but several inefficiencies prevent them from being used to the greatest effect. The lack of a central location for hosting the most current versions of training materials results in confusion as to which materials are the most current between multiple versions that may have been created / distributed over the years. It also complicates attempts to update and ensure consistency of other training documents on subjects that overlap with the subject matter of the new training materials.

If a central clearinghouse of in-date training materials were created, this would significantly improve the ability to revise training documents in response to changing circumstances. It would also enable the creation of a workflow to develop training materials and identify any related documentation that also needs to be changed, creation of an approval process for training materials, and allow version control to be exercised on outdated materials. Formalizing this process would also allow a great deal of the step-by-
step task guides currently contained within department SOPs to be contained within alternate document types (e.g., training manuals, job guides, workflows, etc.). This would allow SOPs to be streamlined and focused on the “big picture”, while these training documents could be more readily updated to reflect changing circumstances.

**Plan**

The department will continue to use textbooks and other training materials required for fire service courses as defined by the educational institution.

The Training Division will develop a location to host the most current version of training materials intended for reference by individuals, crews, etc, and a method of logging changes to these training materials. As part of this process, the Training Division will also develop a workflow for identifying any other training materials that may be affected by revisions to a given training document, and making changes as needed to ensure internal consistency. Finally, the Training Division will develop a process for formally approving and announcing changes to training materials that employees may be referring to for training at the individual or company level.

Once this process is sufficiently developed, and has proven successful, during SOP reviews, the Training Division will promote excerpting any task-level guidance from within an SOP to a new training document. This will streamline department SOPs and ensure they are more accurate by moving task-level information that may come out of date to a format which is easier to revise as needed.

**References**

Infection Control Lecture

High Rise Training Guidelines