



Hazardous Materials 101 For Emergency Managers

Chief Dirk Christian
Emergency Response Division
Office of the State Fire Marshal

Quick Overview

Chief Dirk Christian

- Emergency Response Div. Chief
- 31 years in the Fire Service
- 2-1/2 years at State Fire Marshal
- Program Manager for Regional Hazardous Materials Response Teams
- Retired US Army Colonel with 30 Years of Military Service
- Former Commander, 73rd Civil Support Team (WMD)
- Fire Chief, Shawnee County Fire District #4 (Volunteer), west of Topeka, KS.
- Volunteer with Firefighter Close Calls.com
- Married with 3 Children





Class Outline

- Understand the Facts of the Incident
- HazMat Awareness, Information, and Resources
- State of Kansas Spill Notification Guidance and Reporting
- Understanding Local Fire Department Capabilities
- State of Kansas HazMat Hotline
- OSFM Regional HazMat Response Teams
- OSFM Technical Assistance
- OSFM Logistical Assistance
- OSFM Operational Assistance
- OSFM Training Assistance
- HazMat Disposal and Household Hazardous Waste
- Local Emergency Operations Plans and Planning Assistance
- Contact Information for OSFM HazMat Program Management



Understand the Facts

- We must first understand the facts of the Incident
 - Exact location. Size. Scope. Magnitude. Intensity.
 - 5 x W's = Who, What, When, Where, Why
 - Who is responding? Who is On-Scene? What do they know?

- Ask yourself 3 simple questions...
 - What do we have? What do we need? Where do we get it?

- *“ABC Town Fire Dept. is on scene of a confirmed Hazardous Materials Incident at Mile Marker 123 on Highway XYZ. They have an overturned semi truck hauling a DOT 406 tanker truck, that is carrying 7,800 gallons of E-96 Ethanol. Placard is UN 1987. The tank has not ruptured, but is actively leaking with an estimated 100 gallons on the ground. We could use some assistance.”*



HazMat Awareness for EM's

- 2020 DOT Emergency Response Guidebook (“Orange Book”)
 - <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2020-08/ERG2020-WEB.pdf>

- Kansas Spill Notification Guide (dated July 1, 2021)
 - https://www.kdheks.gov/spill/download/KS_Spill_Reporting.pdf

- Nine Classes of Hazardous Materials
 - https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/Nine_Classes_of_Hazardous_Materials-4-2013_508CLN.pdf

- OSHA 1910.120 Hazardous Waste Operations and Emergency Response
 - <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.120>



Information & Resources

- NIOSH Pocket Guidebook
 - <https://www.cdc.gov/niosh/docs/2005-149/default.html>

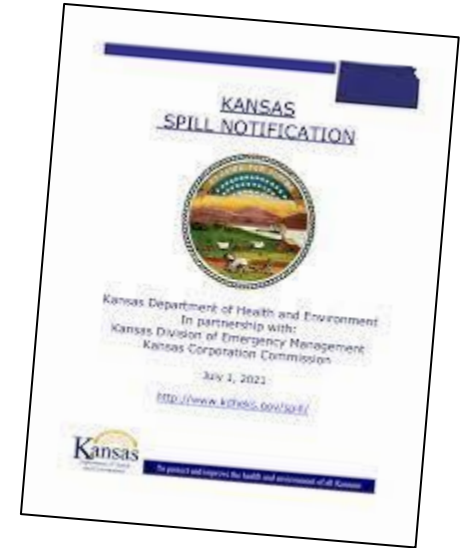
- CAMEO Chemicals Database
 - <https://www.epa.gov/cameo/cameo-chemicals-software>

- CHRIS (Chemical Hazard Response Information System)
 - <https://www.hSDL.org/?abstract&did=24079>

- FEMA/USFA Hazardous Materials Guide for First Responders
(HazMat Guide)
 - <https://www.hSDL.org/?abstract&did=1258>

Kansas Spill Notification

- KS Spill Notification Guide
 - <https://www.kansastag.gov/kdem.asp?PageID=170>
- Spill Reporting Instructions
 - “The spiller is responsible for reporting spills that impact the soil or waters of the state.”
 - You may have the opportunity to do this, or you may guide the Spiller through making spill notifications and reporting.
- **KDEM/KDHE 24-Hour All Hazards Reporting**
 - 24/7 Phone = (785) 291-3333
- **National Response Center (NRC) Reporting**
 - 24/7 Reporting = (800) 424-8802





Understand Spill Reporting

- Location of Spill
- Nature of the Spill
- Spiller Information, including Address and Telephone Number
- Product Spilled, including Quantity / Estimated Quantity
- Placard Information
- Shipping Papers Information
- Safety Data Sheet / CAS # / HazMat Information
- Soil Impacts? / What has Occurred?
- Water / Waterway Impacts? / What has Occurred?
- Emergency Response Operations - What are you doing?
- What do you need? State and/or Federal Resources?



Understand Local Fire Dept.'s

- NFPA 1001 = Standard for Professional Firefighter Qualifications
- NFPA 472 = Standards for Competence of Responders to Hazardous Materials/
Weapons of Mass Destruction Incidents
- OSHA 1910.120(q)(6)(ii) = *First Responder Operations Level:*

First responders at the Operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operational level shall have received at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the awareness level and the employer shall so certify:

1910.120(q)(6)(ii)(A) Knowledge of the basic hazard and risk assessment techniques.

1910.120(q)(6)(ii)(B) Know how to select and use proper personal protective equipment provided to the first responder operational level.

1910.120(q)(6)(ii)(C) An understanding of basic hazardous materials terms.

1910.120(q)(6)(ii)(D) Know how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available with their unit.

1910.120(q)(6)(ii)(E) Know how to implement basic decontamination procedures.

1910.120(q)(6)(ii)(F) An understanding of the relevant standard operating procedures and termination procedures.



Understand Local Fire Dept.'s

- How many Fire Departments in the County?
- Are all the Fire Departments in the County trained and proficient at the Hazardous Materials Operations Level?
- Are the Fire Departments in the County properly equipped to respond to Hazardous Materials incidents at the Operations Level?
- What resources do each of our Fire Departments possess?
- What do they need? (Supplies, Logistical Support, etc.)
- Where do we get the resources that we need?
 - Mutual Aid Fire Departments
 - Municipal or Regional HazMat Response Teams
 - Street or Road Department?
 - Water Treatment Plant?



Kansas HazMat Hotline

- This number is answered 24/7 by the Kansas Highway Patrol Dispatch Center and is handled as the State HazMat Hotline.

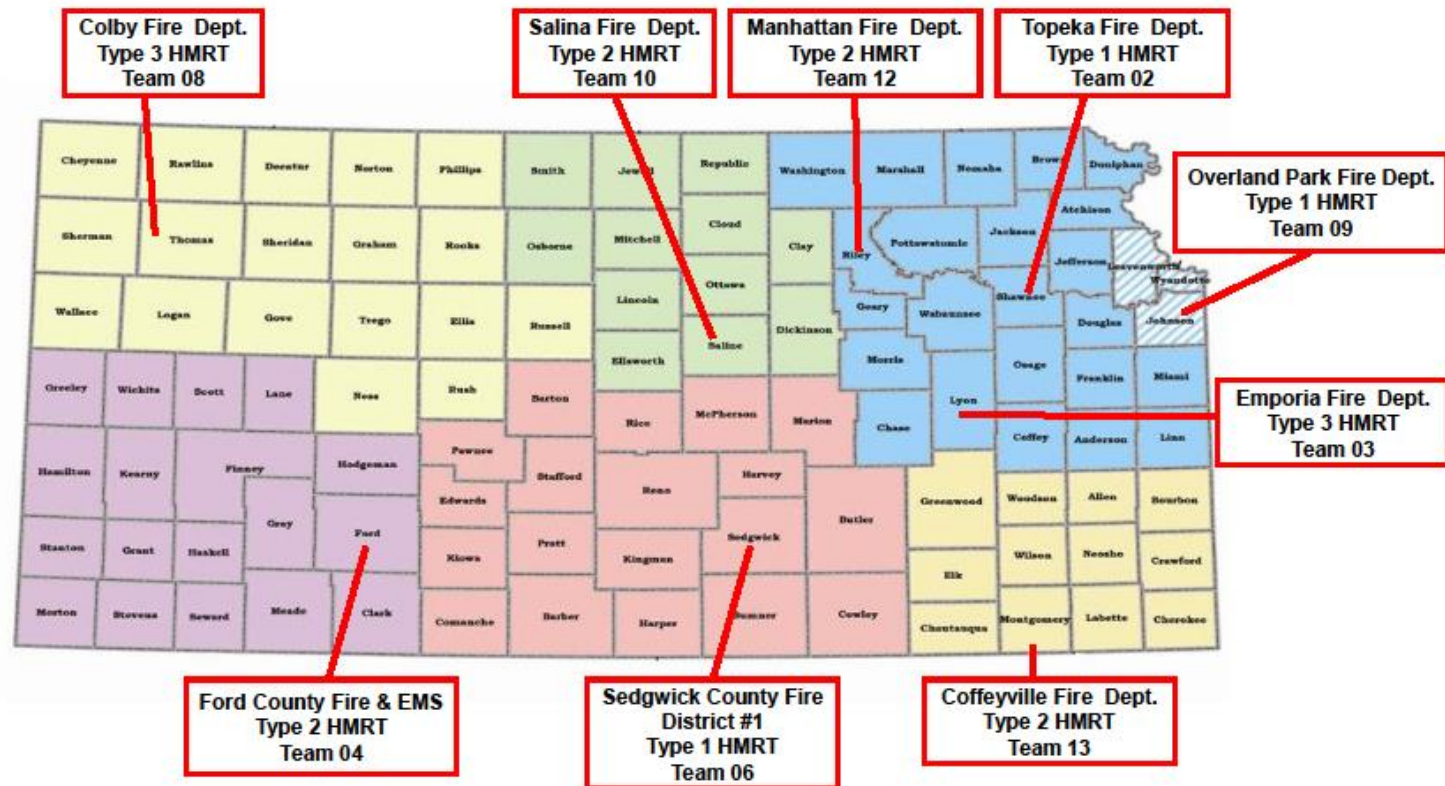
1-866-542-9628

- You will be asked to provide your Name, Phone Number, and any pertinent information related to the HazMat Incident. The KHP Dispatcher will then forward this information to the OSFM Emergency Response Division Chief or the OSFM HazMat Tng. Coordinator.
- You will be contacted by OSFM HazMat Program Management to confirm your request for resources and/or Hazardous Materials Regional Response Team (HMRT / RRT).



Regional HazMat Response Teams

KS OSFM Hazardous Materials Response Teams





OSFM Technical Assistance

- Hazardous Materials Technical Research / [*Virtual Science Officer*](#)
- Railroad Technical Assistance / “Ask Rail” Database
- Heavy Highway Incident Technical Assistance
 - Chlorine
 - Anhydrous Ammonia
 - Ethanol
 - Radioactive Materials
- Incident / Release Plume Modeling (CAMEO, MARPLOT)
- “Remote” Technical Advice and Subject Matter Expertise
- Capabilities for ‘Microsoft TEAMS’, ‘Zoom’, or ‘Go To Meeting’ ‘Virtual’ conferencing / video conferencing with the Incident Commander



OSFM Logistical Assistance

- [On Call](#), Subject Matter Expertise (SME's) with regards to chemical monitoring and detection equipment, suggested implementation and use of equipment, etc.
- Deployable Cache of Hazmat Response Equipment in Topeka
- State Contract for Consumable Booms, Absorbent Pads, etc.
- 32' Hazardous Materials Response Trailer (Topeka warehouse)
- 16' "Dry" Land Boom Trailer (Topeka warehouse)
- 16' "Wet" Water Boom Trailer (Topeka warehouse)
- 32' Incident Support and Response Operations Trailer (Topeka)



OSFM Operational Assistance

- On Call, Subject Matter Expertise (SME's) with regards to chemical monitoring and detection planning, suggested use of resources, and 9 x Regional Hazardous Materials Response Teams (HMRT's)
- On Scene Liaison Officer for HazMat Incidents
 - *At the request and/or discretion of the Incident Command*
- Incident Support Trailer with Support Personnel, to assist the Incident Commander / Unified Command and staff
- Ability to serve as Liaison at Local, County, and/or State (KDEM) Emergency Operations Center
- Ability to serve as Liaison with 73rd Civil Support Team (WMD) (Kansas National Guard), KDEM, KDHE, EPA Region VII, etc.



OSFM Training Assistance

- 80-hour Hazardous Materials Technician training course
 - Minimum of 2 per year (March and September)
 - Priority to 9 Regional HMRT's in Spring class
 - HMEP Grant funded class each September in Salina
 - IFSAC National Certifications offered through KS Fire and Rescue Training Institute (KFRTI)

- HMEP Training Assistance
 - Annual HazMat Specialist Training (40-hr class in Salina)
 - HazMat Technician Refresher training opportunities
 - HazMat Symposium (March 2022 in Wichita)

- Ability to serve as guest instructors, guest facilitators, and/or guest Observers / Evaluators for HazMat training, exercises, evaluations

- Assistance with developing, reviewing, or resourcing Local and/or County HazMat Training events



HazMat Disposal & Household Hazardous Waste Programs

- Household Hazardous Waste Program
https://www.kdheks.gov/waste/about_hhw.html
- KDHE website includes Waste Chemical Disposal Guidance for Schools, Household HazWaste Facility Forms, valuable information, and Kansas Hazardous Waste Statutes and regulations
- *OSFM cannot make recommendations to Local Fire Dept.'s, County Emergency Managers, or Local/County Government with Reference to contacting or contracting for private Hazardous Materials Cleanup contractors!*
 - ❑ *Haz-Mat Response, Inc.*
 - ❑ *Eagle Environmental, Inc.*
 - ❑ *Environmental Works, Inc.*
 - ❑ *Etc., Etc., Etc.*

Local Emergency Operation Plans & Planning Assistance



- KDEM Planning and Mitigation Section
<https://www.kansastag.gov/kdem.asp?PageID=82>

- OSFM Emergency Response Division will assist you with:
 - *HazMat Considerations for your Local Emergency Ops. Plan*
 - *Understanding and connecting with Regional HMRT's*
 - *Questions and Answers with regards to Hazmat Emergencies*
 - *Technical Assistance*



OSFM Contact Information for HazMat Program Management

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Emergency Response Division Chief

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Questions



Proud to have been a part of this year's program!