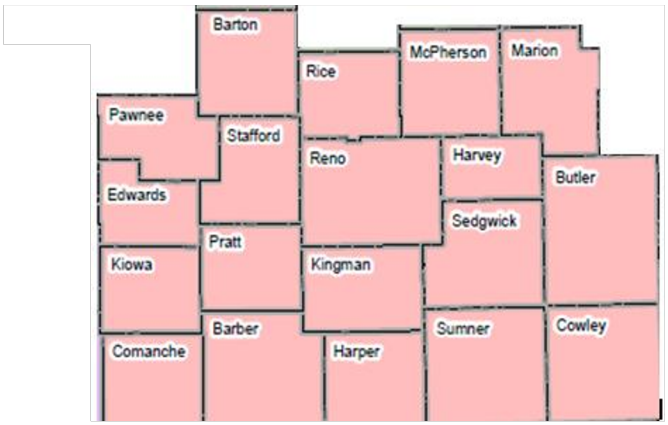


South Central Kansas, Regional Commodity Flow Study

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List of Acronyms

AGO	Attorney General's Opinion (KS).
BNSF	Burlington Northern Santa Fe Railroad.
CEOP	County Emergency Operations Plan (see EOP)
CEPR	Commission on Emergency Planning and Response
CFR	Code of Federal Regulations.
CFS	Commodity Flow Study.
DHS	U.S. Department of Homeland Security.
EHS	Extremely Hazardous Substance
EOP	Emergency Operations Plan.
EPA	The U.S. Environmental Protection Agency.
ESF	Emergency Support Function.
FEMA	Federal Emergency Management Agency.
FHMS	The Federal Office of Hazardous Materials Safety.
FMCSA	The Federal Motor Carrier Safety Administration.
HazMat	Hazardous Materials.
HMEP	Hazardous Materials Emergency Preparedness, a grant of the USDOT
K.A.R	Kansas Administrative Regulation (agency issued).
K.S.A.	Kansas Statutes Annotated (state law).
KCC	The Kansas Corporation Commission.
KCC	Kansas Corporation Commission (referred to as Commission).
KCC	Kansas Corporation Commission.
KDA	The Kansas Department of Agriculture.
KDA	Kansas Department of Agriculture.
KDEM	Kansas Division of Emergency Management
KDHE	The Kansas Department of Health and Environment.
KDHE	Kansas Department of Health and Environment
KDOT	The Kansas Department of Transportation.
KDOT	Kansas Department of Transportation
KFMO	The Kansas Fire Marshal's Office.
KFMO	Kansas Fire Marshal's Office.
KGS	The Kansas Geological Survey.
KHP	The Kansas Highway Patrol.
KHP	Kansas Highway Patrol
KTA	Kansas Turnpike Authority.
L.P.	Legal Precedent, Court Case.
Lbs.	Pounds.
LEOP	Local Emergency Operations Plan (see EOP).
LEPC	Local Emergency Planning Committee.
MCF	One MCF equals one thousand (1,000) cubic feet of natural gas.
Mls	Miles.
MOU	Memorandum of Understanding.
PHMSA	Pipeline and Hazardous Materials Safety Administration.
Pub.L.	Public Law (federal).
R-CFS	Regional – Commodity Flow Study.
SERC	State Emergency Response Commission (see CEPR).
Shpt.	Shipment.
TRB	Transportation Research Board.

UAV	Unmanned Aerial Vehicle.
UP	Union Pacific Railroad.
USC	United States Code.
USDOT	The U.S. Department of Transportation.
WAMPO	Wichita Area Metropolitan Planning Organization.
CI	Critical Infrastructure.
CIKR	Critical Infrastructure and Key Resources (has changed to CI).
NCIPP	National Critical Infrastructure Prioritization Program.
HOS	Hours of Service.
FASCAT	Food and Agriculture Sector Criticality Assessment Tool.
RFP	Request for Proposal
SOW	Scope of Work

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Executive Summary

This report was prepared by EMFusion LLC for the Kansas South Central Homeland Security Region. This HazMat R-CFS project was sponsored by the SC KEMA and the LEPCs in the Region, and funded under a grant of the U.S. Department of Transportation, administered by the KDEM. Cowley County was designated by the LEPCs in the Region as the lead county for the project, and applied for and managed the HMEP funds[1] and non-federal share portion of local governments. This project was based on the CFS guidelines published Transportation Research Board, named "HMCRP REPORT 3" Guidebook for Conducting Local Hazardous Materials Commodity Flow Studies".

The report provides an updated and comprehensive Hazardous Materials Commodity Flow Report. The purpose of the report is to compile data on the transportation of extremely hazardous substances and oil/petroleum products that traverse local communities in the 19 counties that comprise the Region as well as provide critical information to first responders on the transportation routes and hazardous materials commodities shipped within the their local jurisdiction.

The methodology for this study involved five major tasks: (1) comprehensive literature review; 2) data compilation; (3) data review and scoping; (4) analysis; and (5) final report. This report represents the final deliverable for the Regional Contract. The final report compiles data on oil/petroleum product transportation and storage, railroad commodities, pipelines, and ground transportation of hazardous materials.

The top twelve Extremely Hazardous Substances (EHS), as identified by OSHA but not ranked by potential of lethality, that are shipped through the area were identified as:

- Ammonia, Anhydrous
- Boron Trifluoride Diethyl Etherate
- Carbon Disulfide
- Chlorine
- Ethylene Oxide
- Formaldehyde Solutions
- Hydrogen Chloride, Anhydrous
- Hydrogen Sulfide
- Nitric Acid
- Phosphorus Trichloride
- Sulfur Dioxide
- Sulfuric Acid

Crude oil, in the region, dominates the petroleum products shipments via the numerous pipelines running through every county.

Data was compiled from shippers representing each of the transportation methods. The completeness of the data received varied significantly between sources, but it all provided a solid foundation for the completion of this study.

The grant was awarded in the amount of $148,975 with an obligation nonfederal match of 20 percent. The Regional soft match requirement was $37,243.75. Each counties individual contribution totaled approximately $1,960 dollars. The region met and surpassed their soft match requirement in early June.
The project itself expands on a Regional Hazard Analysis project conducted in 2011 by the majority of the counties in the Region, and other existing local hazard analysis and risk assessment studies.

[1] Information about this grant is accessible through the U.S. EPA online at http://www.emd.wa.gov/hazards/HazardousMaterialsEmergencyPreparednessHMEPGrant.shtml

All nineteen (19) counties participated in this R-CFS by providing site collection location, critical infrastructure, responding to surveys, and soft match contributions as well as providing additional specific county information.

This study should help raise the awareness of the local Emergency Planning Committees (LEPC) with regard to the type sand volumes of hazardous materials being shipped through their respective areas of responsibility. More importantly, the information will be of significant Value to first responders in preparing for and responding to oil and hazardous substance releases within their jurisdiction.

Summary of Regional Findings and Recommendations

This R-CFS was viewed as an opportunity to assess the multimodal traffic of HazMat through each county and the Planning Region, and to establish a more direct correlation between the data collected and the suggestions for training, equipment, exercise, and mutual aid protocols. With that emphasis in mind, the following Regional Findings and Recommendations offer a more in-depth view of the many HazMat transportation related issues that impact the Planning Region, and beyond.

A conclusion of this CFS is that the counties first responders have gaps in training, preparedness, response and equipment in responding to, and sustaining, operations in an extremely hazardous substance environment. None of the first responders in this region have the equipment or training to perform lifesaving or rescue operations in an extreme hazmat environment.

An analysis of the counties critical infrastructure shows that they are clustered in close proximity to a hazmat transportation venue. Due to the enormous amount of hazardous materials moving through the region the possibility exists that a release could occur from one of the multiple hazmat venues.

Specific recommendations are included for consideration at the county level, in each individual report. Each county received their county report, and a copy of this Regional Report.

Preparedness Initiatives

Training

In the past, firefighting in Kansas was primarily focused on response to wood frame structure fires. While these fires were dangerous, they were somewhat predictable. Today's structures, factories, transportation vehicles, and even residential structures are filled with space age products. Furnishings burn faster and hotter. This new reality is made more complex by the limited pool of volunteers staffing most rural fire departments across the Planning Region and the state. The following is an outline of relevant issues discussed by Fire Chiefs across the Planning Region:

- The most frequent problem facing volunteer fire departments is finding and maintaining enough staff.
- Burning products used in newer construction release dangerous and/or fatal gases. This increases the need for training hours.
- Surveys conducted with fire departments provide a snapshot of some training needs in the region, based upon what they would consider their worst case scenario.
    - Some of the respondents indicated a need for training in working in a HazMat environment due to the risks identified.
    - The agencies also indicated that for the most part they did not have the equipment to sustain operations in a HazMat environment.
- From a Regional perspective, training is best when it integrates multiple jurisdictions. When a HazMat release occurs it requires efforts from multiple jurisdictions within the county. In some cases the Regional HazMat team response time may be too long if the release impacts critical infrastructure in the area.
    - From the responses received and interviews conducted, it was apparent that there is insufficient training at the regional and county levels that include all jurisdictions, encompassing a HazMat release that impacts critical infrastructure.
- There was consensus among responders that the most up to date information about HazMat capabilities at the fire department, county and regional levels is kept by the Kansas Fire Marshal's Office. The information was requested from that agency, but was not received prior to the completion of this project.
- Partial incident reporting was noted by KDOT, in particular for transportation accident data in particular for off road incidents, guard rail and signage impacts, and other fixed objects in general. This has implications on future funding and reimbursement opportunities.

- Some participating municipalities reported concerns about apparent discrepancies in industry incident reporting.

Recommendations:

- LEPCs should hold specific discussions with individual fire districts in their county, related to the training needs for the Worse Possible Scenarios within their districts. This will help determine each fire departments level for their ability to work in and sustain operations in a HazMat environment.
- Conduct a training session with a HazMat release that could impact one or more critical infrastructures.
- Implement training to improve incident reporting by all local response agencies, making full use of reporting forms in particular those issued by KDOT.
- As a Region, LEPCs should consider a discussion with state regulatory agencies on the importance of communicating with local authorities on industry related spills, and requiring the use of Form As by all relevant industries.
- LEPCs should develop a coordinated approach to support Fire Districts in the development of training strategies to meet their exact needs on an ongoing basis, in order to address staff turnover.

Planning

County emergency plans include a chapter dedicated to HazMat. Some of the surveys indicate little awareness and/or participation by key agencies in the development/update of those plans, in particular Public Works/Road and Bridge agencies.

This study includes the hazardous materials that were identified as traveling through the Planning Region.

- There are no designated HazMat routes in any of the participating counties and their municipalities, or the Planning Region or in Kansas. Few municipalities in the Planning Region have ordinances in place to limit HazMat industry development away from residential areas, institutionalized settings, or government/business centers.
- There are no (identified, mapped or in writing) planned evacuation routes for critical infrastructures.
- Specific to Public Works/Road and Bridge Departments. A significant number of respondents were unaware or uncertain of the role of their departments as an emergency response agency. For too long, emergency planning was relegated to those agencies that first come to mind in personal emergency situations, such as fire and law enforcement. However, the most significant, costly and prolonged recovery after natural disasters is that of infrastructure and related assets. The American Public Works Association (APWA) has issued a clarifying position statement, which is available online at http://www2.apwa.net/documents/Advocacy/_EM_%20PW%20Prof%20as%20Emergency%20Responders-Guidance.pdf.
    - "*Public works is seriously deficient in other aspects of preparedness, including needs assessment, planning, and exercising. As stated earlier. Most attention is focused on the design, construction and the provision of certain essential services. As budgets have gotten tighter in recent years, funding for staff and contractors has severely declined, but public expectations of service levels have not. Reduced staffs have little time or money for planning and training for disasters and emergencies. Managers who do conduct assessments to identify shortcomings find that their recommendations and requests cannot be implemented because of insufficient funding. They have to advocate for these funds by emphasizing to elected officials and the public the vital functions they will be responsible for during emergencies. It is also important to gain the support of police and fire departments as their endorsements will carry much weight.*" [2]

[2] Source: Expanding Role of Public Works in Emergency Management, Leadership and Management in Engineering, July 2012, ASCE.

- **Specific to County Clerks**. In Kansas, County Clerks play critical roles in record management and official filings, which are vital for a comprehensive emergency management program - including HazMat response. The following is a limited list of responsibilities typical of County Clerks in Kansas, of relevance to the emergency management process and LEPC's duties. We have annotated examples of how those functions can support the County planning process (Source: Association of Kansas County Clerks and Election Officials, online at http://www.kscountyclerks.net/job-description accessed September 2014.).
  - Clerk to the Board of County Commissioners.
  - Records and maintains official minutes of meetings.
  - Maintains all contracts with the County.
  - Keep all financial reports of the County and other entities
  - Review and approves all claims for payment and issues 1099s
  - Maintains all legal publications for County
  - Maintains all claims against the County
    - Claims may be related to HazMat spills, incidents, accidents, injuries etc. in which the County or its representatives has a role (responder, spiller, etc.)
  - Maintains a map of all taxing units in the County and submits it annually to PVD, Appraiser and State Assessed Utilities.
    - Self evident
  - Provides "check and balance" to motor vehicle, general ledger and real and personal property from other offices by maintaining a separate set of records.
  - May be able to assist in tracking equipment and property purchased with federal funds.
  - Administers County policies as set by the County Commission.
  - Handles bids/quotations.
  - Notary Public for State of Kansas to conduct notarizations.
  - Administers Oaths of Office and Swears-in Sheriff's Deputies.
  - Inter-local Agreements filed with ROD, SOS after approved from KS AG (K.S.A. 12-2905-2905).
  - One emergency function that had long been associated with County Clerks in Kansas is to designate them as Public Information Officers. Some counties have designated a separate Public Information Officer position but that progress is not homogeneous in the region.

Recommendations:

- The LEPCs should address the need to develop maps with evacuation routes from all critical infrastructures.
  - Designating the routes alone will not achieve full preparedness unless the emergency evacuation capabilities in the region are assessed, and written mutual aid agreements are developed to provide support to one another, in case an incident requires it.
  - This effort cannot be delegated to a single agency; it will require the collaboration of all stakeholders, including the transportation industry. We recommend this effort be led by Public Works entities in close collaboration with each fire district, industry, and other stakeholders as appropriate.
- Prior to the next plan update, LEPCs should work with each Fire District to conduct a formal gap analysis of their training and equipment, for the worse possible scenarios identified through this project. This will help further specify their ability to respond to and work with a HazMat release.
- The top high-risk materials that were identified for each county should be used to create a baseline response requirement for each fire department.

- LEPCs should review planning efforts and projects conducted by other counties in the region or across the state, and discuss the need to conduct similar studies or plans in each county. This will help improve readiness region-wide. An example of this is the railroad crossings study[3] conducted by the WAMPO.
- Conduct a formal study of local codes and regulations that may be suitable for adoption by municipalities across the region. This will also help support a regional mitigation approach, and serve as a baseline for future local and regional projects.
- Establish a regional information arrangement to share industry development in each county, in particular for expanding industries like oil and gas production.
- Formal restriction of HazMat cargo transported through roads in poor condition, bridges classified as deficient, and routes close to critical infrastructure should be considered, in particular for transportation infrastructure near residential care sites, hospitals, schools, and institutionalized populations.
- Work closely with the KHP, the KDOT, and the KCC to support enhancements or regional initiatives geared toward motor carrier inspections and data sharing of findings with local response agencies.
- Engage economic development agencies and Chambers of Commerce in the emergency planning process, to make them aware of the locations where HazMat is stored, produced, used or otherwise transported in and out of the various municipalities in the county.
- LEPCs should seek PW and RB departments' input regarding their equipment and training capabilities to respond to an event so they can be included in the update of ESF #10 Hazardous Materials chapters of local EOPs.
- LEPCs should review the responsibilities of County Clerks in their jurisdiction, and integrate that position in the emergency planning process. The following are examples that stem from the general responsibilities of County Clerks highlighted above:
    - As Clerk of the Board of Commissioners, County Clerks can:
        - Assist in the documentation of emergency mitigation, preparedness, response and recovery discussions and decisions related to the BOCC.
        - Should be encouraged to FILE such information in a manner that can be searched for emergency management purposes, including annotations on "event/incident type and date, phase (response, mitigation, prevention, recovery), declaration status (local disaster, federal disaster)", at a minimum.
    - Based on their role in maintaining official minutes, County Clerks can document emergency meetings. Such discussions are potentially critical for federal reimbursement, should a Presidential disaster declaration be issued for that event.
    - Because County Clerks maintain all contracts with the County, they possess critical information for response and recovery situations, which will help access contractor's contact information, request proposals, identify capabilities, etc.
    - Because the County Clerks keep all financial records of the counties, they should be encouraged to FILE such information in a manner that can be searched for emergency management purposes, including annotations on "event/incident type and date, phase (response, mitigation, prevention, recovery), declaration status (local disaster, federal disaster)", at a minimum.
    - Because they review and approve payment to claims, and issues 1099s, County Clerks should be encouraged to FILE such information in a manner that can be searched for emergency management purposes, including annotations on "event/incident type and date, phase (response, mitigation, prevention, recovery), declaration status (local disaster, federal disaster)", at a minimum.
    - County Clerks are said to administer County Policies. The EOP is a compendium of County Commission approved policies. The County Clerk role is critical in ensuring any policy included in the EOP does not conflict with other policies/contracts. This means they should be actively

[3] Railroad Crossing Plan, 2007, WAMPO, online at http://www.wampo.org/Library/RL%20Documents/2007%20Railroad%20Crossing%20Plan.pdf accessed July 2, 2014

involved and have a working understanding of the EOP, this includes local disaster declarations, EOP, LEPC publications, etc.
    - Because County Clerks handle bids and quotations, it signifies a role in the emergency acquisition process. Although a State disaster declaration provides local officials authority to waive specific purchasing protocols, it does so only for the duration of the declaration. This highlights the importance of County Clerks having a working knowledge of the EOP, and the need to have them participate in the planning process.
    - Because County Clerks Administer Oaths of Office and Swears-in Sheriff's Deputies, they have a role in discussions concerning mutual aid, emergency expansion of staff, etc.
    - Because of their role in records management, documentation, contracting, etc., County Clerks should be provided copies of all written mutual aid agreements that are in place to support county agencies/departments.
    - It is important for County Clerks to retain copies of important records independently from copies of departments, so that a valid checks and balances system is established.
    - Designating the County Clerk as Public Information Officer meets a designation requirement for counties with limited staffing, but in practice we do not recommend it. The Public Information Officer position demands 24/7 staffing during an emergency, and County Clerks have critical duties to address at the same time that it will make it extremely difficult for these officials to adequately fulfill both roles. The LEPC should evaluate how this position is staffed in their jurisdiction, and advocate for appropriate changes, and training of Public Information Officials.

Exercises

As part of this project, EMFusion requested data from KDEM on past exercises that focused on HazMat transportation. The data collected for all general exercises maintained by KDEM was unavailable. The state determined that a single HazMat exercise was conducted in the Planning Region.

Recommendations:

- We recommend LEPCs support the integration of Worse Possible Scenarios into fire district specific exercises, and seek federal funding to support these activities under HMEP. Regional support of local authorities is a critical component to include in these exercises, particularly if the Worse Possible Scenario is known to exceed the District's resources.
- LEPCs should consider the development of a Regional Exercise Strategy, with particular emphasis on HazMat issues. It is important for LEPCs to consider hosting a HazMat specific transportation exercises across the region.
    - The first exercise should include an incident with a single transportation mode.
    - Future exercises may be more apt for scenarios with multi-modal incidents, at areas where they intersect (e.g. rail crossings across HazMat transited roads).
    - An exercise should include a hazmat release impacting critical infrastructure.
        - Determine a strategy for first responders in the area that do not have PPE for response to and sustainment capabilities in a hazmat environment.
- Evaluate hazard specific exercise activities that may have been conducted at the county level under programs other than HMEP. The data will be available in the future through the KDEM Exercise Officer.
    - Share past exercise scenarios, and encourage counties to conduct similar events, to obtain a baseline preparedness level across the region.
    - Identify transportation specific initiatives included in each county exercise strategy, and encourage inclusion of other regional participants as observers and evaluators.
    - Start a compendium of HazMat transportation findings based on past exercise After Action Reports, for inclusion in future CFS initiatives.
- Include industry representatives as key players in the exercise, both in site selection and scenario development, as well as part of the After Action Report development process.

- Include representatives of critical infrastructure, in particular those that are near the transportation site(s) highlighted in the exercise. Encourage their participation by testing 1) communications with responders and 2) implementation of recommended protective action measures.

Commodity Flow Studies

- Integration of local data is essential to ensure the project delivers valuable information that will assist the jurisdiction with hazmat planning and response.
- Local participation is critical in ensuring survey time and scheduling, survey locations, etc. is properly determined.
- Some field locations selected for field surveillance had limited traffic. As a result, no placarded vehicles were observed during that surveillance time.
- Consider the applicability of field data collection frameworks suggested by the TRB CFS Guidelines. Chose the type of data collection process that benefits most local jurisdictions (e.g. the TRB suggests repeated field surveillance counts at the same sites, different times of the day, and different seasons, to identify the most traveled times. Theoretically, the data would benefit response agencies in making staffing decisions during times of heaviest traffic. In reality, this has little applicability to jurisdictions that are heavily dependent on volunteer and reserve staff).
- There appears to be no correlation between industry growth (HazMat related transportation of supplies and materials for the oil and gas industries) and the inspection capabilities (staffing) of regulatory agencies.

Recommendations:

- When selecting field surveillance sites, it is critical to determine parts of the road network that may be only used by local traffic during given hours.
- An analysis of critical infrastructure locations in relation to transportation venues should be prioritized.
- Recommend to the CEPR an independent CFS of the entire route of the Kansas Turnpike.
    - CFS must be done in collaboration with the KTA.
    - Involve the KTA Traffic Engineer.
    - Allow the use of the data the KTA already collects.
    - Participation of the KHP in conducting random manifest checks of placarded trucks, to verify compliance between manifest and placard. This level of assessment has never been conducted in Kansas, and the resulting analysis would prove far more beneficial to response agencies.
    - Site surveillance to be done at the toll locations.
    - Allow set up of video equipment and data collectors at toll locations.
    - The findings of the report to be made available to all counties transected by the Turnpike.
- Recommend state regulatory agencies conduct a study of the effectiveness of current inspection programs, in particular for the expanding oil and gas industry in the Planning Region.

Industry and Regulatory Findings

The following findings were largely generated through the data research phase.

Oil and Gas Production

- An analysis of the implementation of statutory requirements for reporting of spills, regardless of the nature of the release, found inconsistencies in compliance with federal and state laws.
- A review of NRC's federal reporting requirements and actual reports received compared to state requirements, and the use of Form As, and reports received, as well as the KCC's reporting requirements

and data the agency receives are not conducive for the counties to develop a complete operational picture, in order to conduct effective hazard analysis or preparedness and response initiatives.

- KCC has 30 field staff members to inspect the entire inventory of oil and gas wells across the state. In the Planning Region alone there are an estimated 10,046 oil wells and 4,633 gas wells[4]. Although staff is onsite while the wells are constructed, KCC does not have the physical capability to inspect the operation of wells on a regular basis. The significance of this is the number of undetected or under reported spills that have the potential to occur on a daily basis.
- There is an apparent gap between the collection processes for spill notification.
    - In the case of gas and oil industries, the KCC does not require the use of Form As.
    - Although the KCC has field staff assigned to inspect the construction of well casings, if a spill occurs**, there is no direct communication or reporting from the KCC to local response authorities**, but there is a penalty process implemented by the KCC should the owner/operator fail to clean the site or report the spill. That data is maintained in the KCC's **Online Docket System**[5].
    - The Online Docket system provides access to cases where well owners/operators have been penalized for unreported spills or failed remediation measures. However, the system does not give users the ability to query incidents by location. To research the site, users must know the name of the company or docket number. Using the wild card search feature for the site did not provide a response in a manner that makes research feasible for emergency managers.
    - The owner/operator of wells is encouraged by KCC to file necessary spill reports. That data is provided from the KCC to KDHE, if KCC is made aware of it.

Interactive Spill Map

KDHE has developed an interactive spill map system intended to allow search for data on reported spills. The map is an amalgamation of continued database reports from historic events to present. The map features lack the ability to 1) search by year, 2) by HazMat type, 3) by quantity, and 4) source of information. The visual attributes of the map make it nearly impossible to use, because icons representing each reported spill congest the maps.

Source of information would have benefited the incident research. A review of the data collected indicates apparent inconsistencies with other reporting systems.

Truck Transportation Based on Site Surveys

EMFusion's staff reviewed other CFS conducted in Kansas and found a large differential of transportation counts between other areas of the state and the SC Region. Although in many cases the field surveys conducted for this project was done for longer periods of time, but the truck traffic counts in the Planning Region were significantly lesser.

In Kansas, the KHP has the authority to stop a truck to check the information on bill of lading vs. placarding, for safety purposes. Although an exact number of KHP officers trained to conduct these assessments was not available, it is our estimate that at most 50 officers in Kansas are trained for such inspections. This type of verification is not conducted at weigh stations, which should be considered. Without having sufficient data on the number of inspections conducted in Kansas or the region, it is impossible to determine whether or not transporters are properly placarding their vehicles.

At the federal level, the Federal Motor Carrier Safety Administration publishes a detailed list of roadside inspections and HazMat violations by fiscal year. The same data sharing process should be considered for adoption by the KHP in Kansas. Based on the FMSA statistics alone, we are left with a very small sampling of carriers who undergo this inspection.

[4] Source: County production data, Kansas Geological Survey.
[5] Online through the KCC's website at http://estar.kcc.ks.gov/estar/portal/kcc/page/Dockets/portal.aspx

The greatest threat for a HazMat release of gas, oil and other HazMat transported by truck for the booming oil and gas industry appears to be in the southern counties of the Region. State monitoring of vehicles has not increased to compensate for the increased motor carrier traffic due to the industry expansion.

Legislative Changes to Safety Requirements

Starting July 1, 2014, a change in safety requirements will go into effect for one year, as a result of a legislative action in Kansas. This change exempts small commercial trucks from most of the safety regulations Kansas applies to large haulers.

Commercial vehicles with a weight rating of up to 26,000 pounds will not be required to comply with HOS rules, required semi-annual medical examinations, minimum age restrictions, safety hitches, trailer braking systems, tires, emergency equipment and required markings.

The change does not affect the placarding or other safety requirements for HazMat transporters. However, the KCC, the Kansas Motor Carriers Association, and the KHP testified against this action on the basis of increased risk along roads and highways in Kansas, as industries and small businesses are expected to maintain the same shipping patterns, but change from large commercial trucks to trucks under the weight limit. The result will be over twice as many vehicles traveling long distances with diminished safety precautions.

Sponsors of the bill include the Kansas Association of Wells Service Contractors; builders, landscape and construction industries; and other small businesses.

The exemption sunsets in 2015 unless renewed by the Kansas Legislature. The KCC is directed to review the results of the change during the year that is in effect, and provide information to the 2015 legislature.

Pesticide/Fertilizer Application Issues

Two new industry developments have been noted as posing a risk to aerial pesticide applicators:



- The proliferation of meteorological towers above 200 feet must be marked in a specific manner to avoid posing a hazard for aerial applicators. In 2013, the Kansas Legislature approved regulatory legislation to allow the KDA to require such markings.
- The use of UAVs is growing. This can be a threat to aerial applicators because their flight plans are unreported, and may not be required.
- The use of UAVs is already expanded into actual pesticide/fertilizer delivery. Although the FAA does not currently allow unmanned airplanes or helicopter to apply pesticides or fertilizers, other countries, such as Japan, have used drones for the last two decades to spray up to 30% of its rice crops[6].

Recommendations:

This recommendations section is an aggregate of all sectors.

- Collaborate with the KDA in mitigating measures specific to the risk posed by unmarked meteorological towers above 200 ft. This may include a regional study of the existing towers and inspection of markings.
- Engage in the future legislative actions related to UAV safety requirements.
- Collaborate with KDHE by providing input on the usability of the Interactive Spill Map for local and regional planning efforts.

[6] Source: Drones Used for Agriculture, July 31, 2013 http://bizmology.hoovers.com/2013/07/31/drones-used-for-agriculture/#sthash.maXvTBCd.dpuf accessed July 2, 2014.

- Provide input to the KCC on the importance of direct reporting to local response agencies on spill reporting, and determine ways local response agencies can assist the site inspection process.
- Communicate with the CEPR on the need to include the KCC in the SERC, given the increased industry expansion in the area, and the agency's regulatory role.
- Support the state's development of a one-stop online incident-reporting tool, led by KDEM, and encourage the integration of all data received at the state level.
- Communicate with the KCC on the importance of accessing data on prior industry violations through its online system.
- Engage in the legislative discussion about amendments to Hours of Service and other safety requirements for commercial motor carrier vehicles below 26,000 lbs.
- Engage in the ongoing legislative discussions related to hydraulic fracturing and induced seismic activities in Kansas.
- Support the KGS in its efforts to renew earthquake monitoring and measuring capabilities.
- Engage in future legislative discussions about the possible use of drones to deliver pesticides and fertilizers for agricultural purposes, and potential safety concerns this new technology may bring to your communities.

Regional Project Summary

Purpose

The purpose of the HazMat R-CFS was to identify the types, amount and routes of HazMat commodities transported through the South Central Region and provide an analysis of the data and information collected so that planners may consider activities in prevention, preparedness, mitigation, response and recovery.

This R-CFS included the following objectives:

- Identify hazardous materials commodities transported.
- Identify systems used in the region for HazMat transportation.
- Assess and analyze HazMat transportation locations greater vulnerability, volumes of materials transported, and prevalent hazard classes.

The roles of EMFusion in this project included:

- Conducting preliminary meetings with the SC KEMA Region, and each participating LEPC, to ensure that the study is designed to meet the identified needs.
- Acquiring historical data and requesting assistance from the LEPC, Emergency Managers, Fire Districts, Public Works/ Road and Bridge Departments, Law Enforcement agencies, and state/federal regulatory agencies, as necessary,
- Designing a study to meet the needs of the LEPCs and the Planning Region, with local input.
- Coordinating and conducting data collection, and analyzing data.
- Documenting the R-CFS results.

Scope

The R-CFS conducted in the Planning Region was limited in scope to hazardous materials transported by air, rail, pipeline and roadway, excluding waterways. The scope of the study encompassed the following:

- Review of existing available data.
- Field data collection.
- Data collection from industry.
- Review and analysis.
- Identification of transportation hotspots.

FY2014 HMEP Commodity Flow Survey

1. First item will be to identify critical facilities in your county
   a. Do not need to explain hospitals, EMS, LE stations, but FD's will depending upon where they are located and what equipment they have
   b. If a facility is listed, but not a primary public safety facility, need to know why it is considered critical
   c. Sites will be mapped in accordance to transportation routes and Tier II facilities
   d. Those that do not fall within a plume of a potential spill, they may be eliminated from the list unless there is a good explanation of why they need to remain on the list
   e. They will develop a criteria to prioritize the critical infrastructure
   f. Good starting point is the Critical Facilities list done for the Hazard Mitigation Plan (only 11 counties have that, the other 8 do not)
2. Contract is not signed yet
   a. Once it is signed Ida and Dan will visit with me and we'll develop a timeline for actions.
   b. Plan to be at Dec KEMA meeting to start the process and answer questions
3. Performance period ends 9/30/14
4. Time tracking

Figure 1 SC KEMA Project Discussion Oct. 2013

R-CFS Planning Assumptions

Rail

- The general bulk commodities are transported in pressure containers. A loaded pressure container weight of 48,000 pounds was used.
- Flammable liquids are shipped in General Service Tank Cars. A loaded volume estimate of 23,000 gallons was used.
- Corrosive materials are shipped in smaller cars. A loaded weight of 15,000 gallon tank cars was considered. Volume is converted to pounds using 15 lbs. to 1 gal conversion estimate.
- Hazardous materials containers shipped by rail are dispersed throughout the entire train.

Pipeline

- One barrel (fluid) = 31.5 gal
- One barrel (oil) = 42 gal
- One barrel dry = 26.24 gal

For hazardous materials that were transported via pipeline or pumped from wells in the reporting documents were listed by barrels of mcf. The following assumptions were used:

- In converting the reported amounts to US Gallons a factor of ONE barrel of oil = 42 gallons.
- A single mcf is equal to approximately 1,000,000 Btu (British thermal units) of energy.
- A natural gas well that produces 400 mcf of gas per day operates with a daily production rate of 400,000.

Roads and Highways

- The survey results provide a snapshot of the HazMat specifically identified in the designated survey locations.
- The KDOT daily truck count is a valid basis for obtaining an average traffic for the designated survey locations.
- All roadways were surveyed for several periods of time, some on different days.
- Traffic volumes differ from day to night along with seasonal variations.
- A standard MC-306 flammable liquid tanker could transport up to 9,000 gallons of flammable or combustible material.
- All placard vehicles contained more than 1,001 lbs. of HazMat.
- HazMat transported by commercial carriers, in less than the required placarded amounts, still contain large amounts of flammable or combustible fuels, compared to a typical passenger vehicle.
- The results of the survey can be multiplied by the number of hours needed to obtain an estimate for any given period.
- For surveillance sites where no placarded vehicles were identified, the assumption must remain in place: transportation of HazMat does occur on these roads.

Air

- McConnell Air Force Base represents the greatest risk of air-related HazMat incident potential in the region.
- McConnell Air Force Base continues to be predominantly a KC-135 airborne strata tanker station. This means large amounts of jet fuel are being flown and piped into that location.
- Midwest Continental is a commercial airport with minimal HazMat cargo. Its biggest threat can be attributed to the number of planes during departure with maximum fuel onboard.

- All other airports in the Planning Region fall below the risks posed by these two sites, and were excluded from the analysis.

Navigable Waterways

There is no waterway transportation in this region; therefore this transportation mode is excluded from this R-CFS.

Project Methodology

The SC KEMA Region approved the following Data Collection Strategy to guide the implementation of a Regional Commodity Flow Study (CFS) by its member counties.

Prior to the start of the Project, representatives of the nineteen participating counties met twice to discuss the project participation requirements, objectives and goals. During these meetings, the Regional Project Coordinator (Brian Stone, Emergency Management Director of Cowley County), provided information on the project itself and the recommendations provided by the Kansas Division of Emergency management (KDEM).

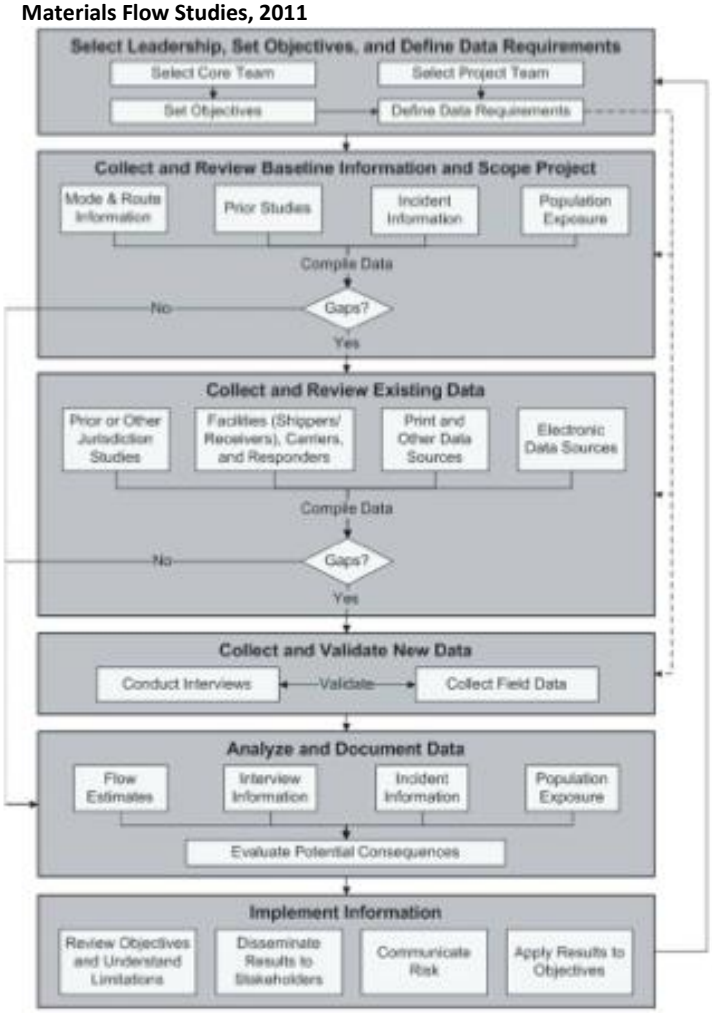
Defining the Process

This R-CFS, in particular its Data Collection Strategy, follows the guidelines published by the TRB (Guidance for Conducting Hazardous Materials Flow Studies, 2011), which updates the U.S. DOT's "Guidance for Conducting Hazardous Materials Flow Surveys".

Per guidance from KDEM, the guidebook is to be used to:

"(1) explain data collection methodologies to obtain hazardous materials commodity flow data at the local level (from public and private sources).
(2) Describe methods that can be used by local and regional planners to identify and estimate hazardous materials flows in their jurisdictions.
(3) Describe promising practices and suggestions to help local jurisdictions successfully plan for, conduct, and implement a hazardous materials commodity flow survey.
The Appendix E of this guide provides a detail description of CFS Sampling and Scheduling."

Figure 2 CFS Process from the Guidance for Conducting Hazardous Materials Flow Studies, 2011



Phase I: Organizational Structure of the Leadership of the Project and Goals/Objectives

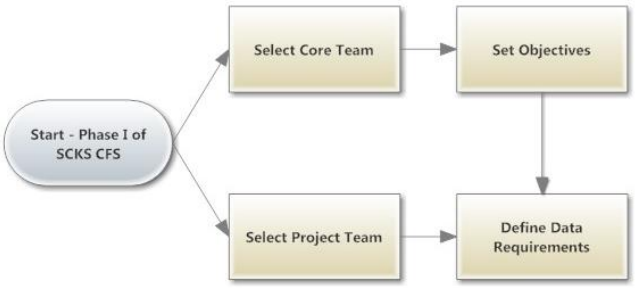
The project's goals were originally defined in the RFP and related SOW published by the Cowley County Local Emergency Planning Committee.

Because this is a Regional CFS, versus a single jurisdiction study, the process included a selection of a Project Core Team and a Project Team. The Project Core Team became the membership of the SC KEMA Region (integrating all Emergency Managers of the participating counties) because this body was the original proponent of the study, developed the RFP, and the initial project goals and objectives.

The Project Team is multi-disciplinary, and was composed of one representatives of each LEPC. The role of these representatives was to promote local participation and be the county data collection lead.

Data requirements for the project were defined with input from both groups. The diagram below depicts the variation from the recommended TRB process to allow for this project's regional approach.

Figure 3: Process flow, as adapted for this R-CFS

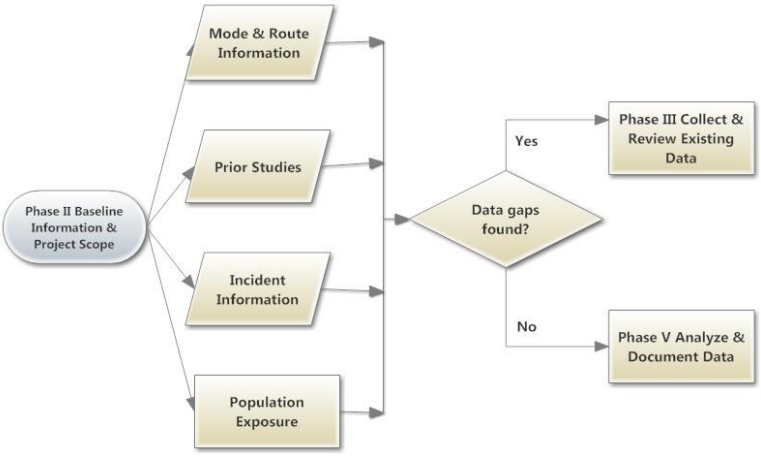


Phase II: Baseline Information and Project Scope

All participating counties agreed that the area of study would include county major collector roads, state and federal highways across the planning area.

Each participating county identified the specific sites to be included in the Field Collection Surveys. EMFusion provided guidelines for prioritizing the sites, and in-person training for municipal teams who wanted to conduct their own Field Collection Surveys.

Figure 4: Baseline Information and Scope



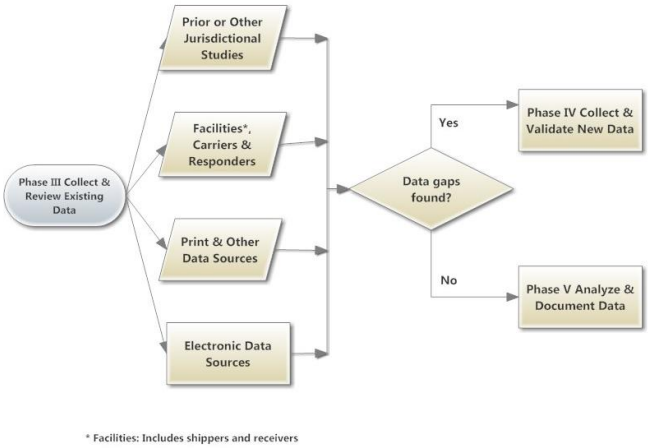
Phase III: Data Collection and Review

This was a research intensive phase, where prior data was evaluated for applicability. Completed studies from other regions in Kansas were also evaluated, as available, to aid in further framing the scope of the data collection process.

For HazMat transported in commercial vehicles on the highways surveyed, nearly all surveys captured placard vehicles that moved through the survey area. Each site was observed for a one hour period.

Times of observation varied from 0730 until 1900.

Figure 5: Data Collection and Review Phase

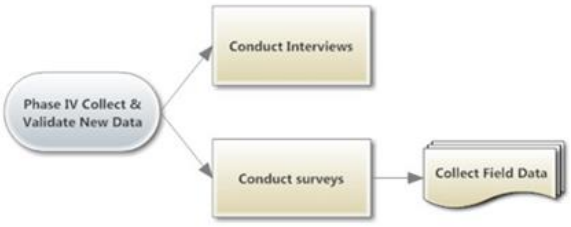


Phase IV: Data Collection and Validation

The CFS guidelines published by the TRB explicitly identify six (6) different frameworks to consider in the data collection process:

- Convenience sampling: As available for data collectors.
  - Pros: Easiest for data collectors, minimum schedule managing.
  - Cons: Difficult to reliably identify traffic patterns at any one location or time frame.
- Representative sampling: One location per major roadway, at different times of day on any given weekday, during any season.
  - Pros: Easy to conduct over time for data collectors, moderate scheduling management, moderate degree of information about traffic patterns for roadway; low-to-moderate level of data collection resources needed.
  - Cons: Cannot be used to reliably characterize traffic on different segments of same road or other roads, determine seasonal traffic patterns, or transport patterns throughout a network.
- Cluster sampling: Multiple locations per major roadway, at different times of day, on multiple days of week during multiple seasons.
  - Pros: High degree of information about traffic patterns throughout a transportation network.
  - Cons: High degree of scheduling management may require high level of time commitment from data collectors or other data collection resources.
- Stratified or proportional sampling: Dependent on traffic characteristics on any given network segment; less data are required for low traffic volumes, and more data for high traffic volumes.
  - Pros: Very high degree of information about traffic patterns through a transportation network; focuses effort on high-priority segments.
  - Cons: Requires statistical calculations to determine sampling requirements; extremely high degree of schedule management; may require high level of data collection resources.
- Random Sampling: At random times of day, days of week, seasons of year, for a specific network segment.
  - Pros: Very high degree of information about traffic patterns on sampled network segment.
  - Cons: Requires statistical calculations to determine sampling requirements; extremely high degree of schedule management; requires high level of data collection resources.

Figure 6: Data Collection and Validation



- Census sampling: All traffic data for all times of day, days of week, and seasons of year, for specific network segment or entire network.
    - Pros: Complete information about traffic patterns at sample locations.
    - Cons: Nearly impossible to attain with current systems; requires an extreme degree of data reduction.

The Random Sampling approach was utilized for this project, based on the interest of counties to participate in the field collection efforts.

Local Participation in Temporal Data Collection

In total, thirteen (13) counties chose to designate a team of local responders who volunteered their time to conduct the local site surveillances. EMFusion developed a training session. The TRB data collection forms were utilized in the process. EMFusion staff conducted twelve (12) onsite training sessions (two counties chose to participate in the same session), where the data collection forms were distributed, data requirements were reviewed, examples were included to ensure consistency across all collection sites. EMFusion developed soft-match worksheets for local responders to track their volunteer time. EMFusion collected that data to account for the non-federal match requirements. By June 2014 the participating counties had exceeded the non-federal match requirements, and the local time data was no longer collected.

The map below is a high-level view of the different surveillance sites staffed by local officials and EMFusion staff. It demonstrates how critical transportation roads were surveilled multiple times, on different days, across the Planning Region.

Not including research related functions, direct observation alone accounted for the following facts:

- Over 282 hours of transportation was observed.
- 963 placarded hazardous materials loads documented.
- 29 separate roadways were studied.
- 115 surveillance sites were observed.

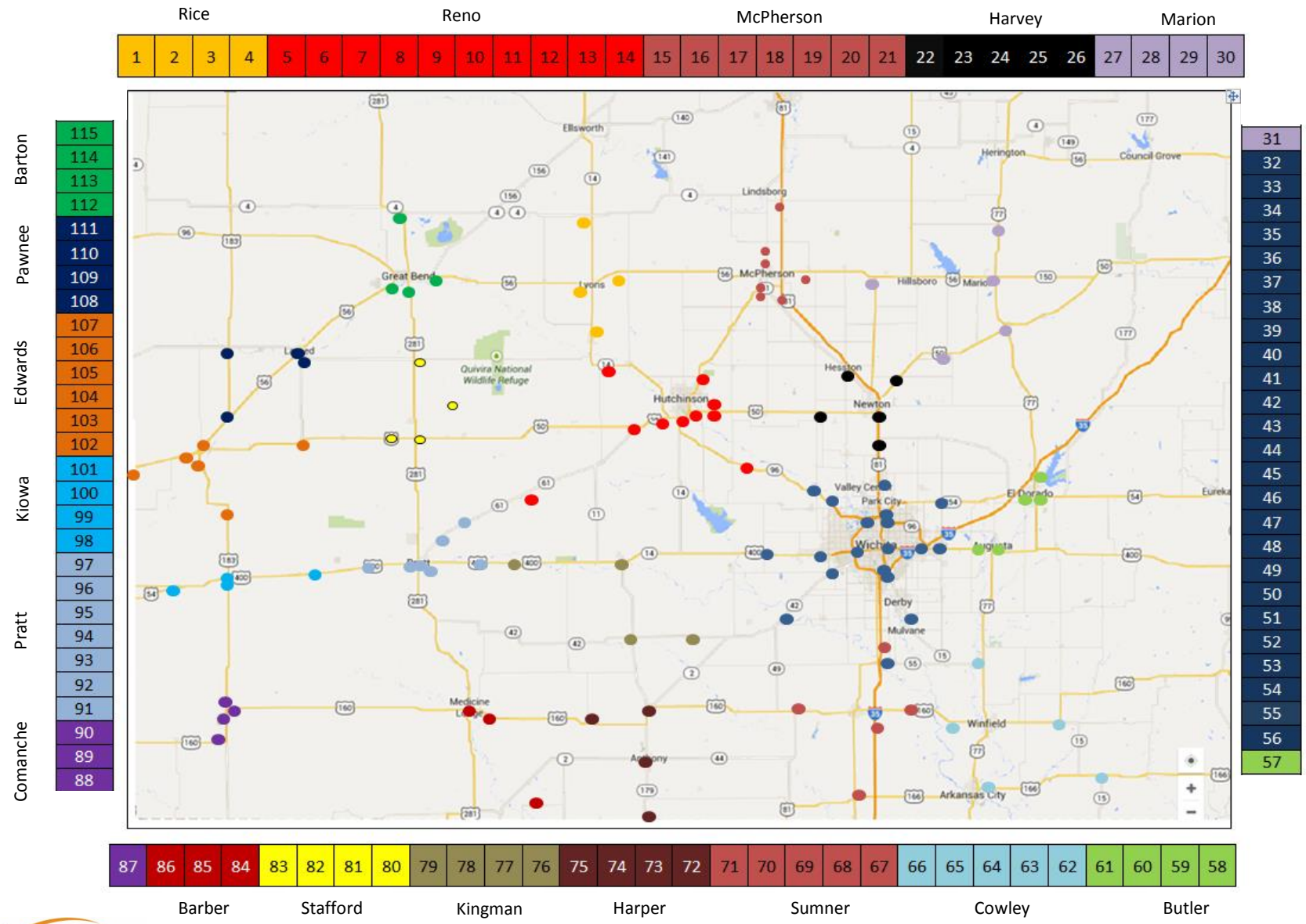
No site surveillance was conducted during the hours of darkness.

County-specific reports include the details of the sites local officials identified, and general information about surrounding CI. Specific data about these assets is excluded from the general and county-specific reports because of security reasons. However, the information is maintained by local officials under separate cover.

Sample Site Survey Data

The following map and spreadsheet depicts site locations identified by the counties and the spreadsheet provides general information about transporation movement through collection sites. More detailed information about collection data is contained in the individual county reports.

Map 1: Overview of Field Data Collection Locations



Map Reference Location by County

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
1	Rice	Sterling	K-14 & Ave U	5/16/14	1	Friday
2	Rice	Bushton	K-4 & 6th Rd	5/12/14	1	Monday
3	Rice	Lyons	U-56 & 17th Rd	5/7/14	1	Wednesday
4	Rice	Lyons	U-56 & 15th Rd	4/30/14	1	Wednesday
			U-56 & 15th Rd	5/7/2014	1	Wednesday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
5	Reno	Hutchinson	¼ mi. W of U-50 & Whiteside Rd	5/15/14	1	Thursday
6	Reno	Hutchinson	Intersection of U-50/96	5/18/14	1	Sunday
7	Reno	Cairo	K-61 and Brownlee	5/19/14	1	Monday
8	Reno	Hutchinson	1 mi. east of U-50 & Airport Rd	5/27/14	1	Tuesday
9	Reno	Hutchinson	½ mi. east of U-50 & Lorraine St	5/27/14	1	Tuesday
10	Reno	Hutchinson	Airport Rd & Enterprise Dr	5/27/14	1	Tuesday
11	Reno	Nickerson	K-14 & N Sego Rd	5/28/14	1	Wednesday
12	Reno	Partridge	U-50 & Partridge Rd	5/28/14	1	Wednesday
13	Reno	Hutchinson	K-61 & Eastland/Harold	5/29/14	1	Thursday
14	Reno	Haven	K-96 & Worthington Rd	5/29/14	1	Thursday

Map Reference	County	City	Location	KDOT Traffic Count	Time	date	Weekday	24 Hr Truck Count	Trucks per Hour	Placard Count	Percentage
1	Rice	Sterling	K-14 & Ave U	Yes	AM	5/16/14	Friday	375	15.63	5	32%
2	Rice	Bushton	K-4 & 6th Rd	Yes	AM	5/12/14	Monday	200	8.33	3	36%
3	Rice	Lyons	U-56 & 17th Rd	Yes	AM	5/7/14	Wednesday	680	28.33	5	18%
4	Rice	Lyons	U-56 & 15th Rd	Yes	PM	4/30/14	Wednesday	635	26.46	3	11%
			U-56 & 15th Rd	Yes	PM	5/7/2014	Wednesday	635	26.46	1	4%
Map Reference	County	City	Location	KDOT Traffic Count	Time	date	Weekday	Truck Count	Trucks per Hour	Placard Count	Percentage
5	Reno	Hutchinson	Intersection of U-50/96	Yes	AM	5/18/14	Monday	853	35.54	1	3%
6	Reno	Cairo	K-61 and Brownlee	Yes	AM	5/19/14	Monday	750	31.25	2	6%
7	Reno	Hutchinson	1 mi. east of U-50 & Airport Rd	Yes	AM	5/27/14	Sunday	1330	55.42	4	7%
8	Reno	Hutchinson	½ mi. east of U-50 & Lorraine St	Yes	AM	5/27/14	Sunday	1330	55.42	4	7%
9	Reno	Hutchinson	Airport Rd & Enterprise Dr	No	AM	5/27/14	Sunday			5	
10	Reno	Nickerson	K-14 & N Sego Rd	Yes	AM	5/28/14	Monday	375	15.63	7	43%
11	Reno	Partridge	U-50 & Partridge Rd	Yes	AM	5/28/14	Monday	965	40.21	9	22%
12	Reno	Hutchinson	K-61 & Eastland/Harold	Yes	AM	5/29/14	Tuesday	760	31.67	6	19%
13	Reno	Haven	K-96 & Worthington Rd	Yes	AM	5/29/14	Tuesday	1440	60.00	7	12%
14	Reno	Hutchinson	¼ mi. W of U-50 & Whiteside Rd	No	AM	5/15/14	Thursday			3	

Map Reference	County	City	Location	KDOT Traffic Count	Time	date	Weekday	Truck Count	Trucks per Hour	Placard Count	Percentage
15	McPherson	McPherson	Fire Station U-56/ EB & WB	Yes	PM	4/1/14	Tuesday	1752	73.00	1	1%
			Fire Station U-56/ EB & WB	Yes	AM	4/3/14	Thursday	1752	73.00	2	3%
			Fire Station U-56/ EB & WB	Yes	PM	4/3/14	Thursday	1752	73.00	5	7%
			Fire Station U-56/ EB & WB	Yes	AM	4/5/14	Saturday	1752	73.00	0	0%
			Fire Station U-56/ EB & WB	Yes	PM	4/5/14	Saturday	1752	73.00	1	1%
			Fire Station U-56/ EB & WB	Yes	AM	4/7/14	Monday	1752	73.00	2	3%
			Fire Station U-56/ EB & WB	Yes	PM	4/7/14	Monday	1752	73.00	4	5%
			Fire Station U-56/ EB & WB	Yes	AM	4/9/14	Wednesday	1752	73.00	1	1%
			Fire Station U-56/ EB & WB	Yes	PM	4/9/14	Wednesday	1752	73.00	5	7%
			Fire Station U-56/ EB & WB	Yes	AM	4/11/14	Friday	1752	73.00	0	0%
			Fire Station U-56/ EB & WB	Yes	PM	4/11/14	Friday	1752	73.00	2	3%
			Fire Station U-56/ EB & WB	Yes	AM	4/13/14	Sunday	1752	73.00	1	1%
			Fire Station U-	Yes	PM	4/13/14	Sunday	1752	73.00	1	1%

			56/ EB & WB								
			Fire Station U-56/ EB & WB	Yes	AM	4/15/14	Tuesday	1752	73.00	2	3%
			Fire Station U-56/ EB & WB	Yes	PM	4/15/14	Tuesday	1752	73.00	5	7%
			Fire Station U-56/ EB & WB	Yes	AM	4/17/14	Thursday	1752	73.00	2	3%
			Fire Station U-56/ EB & WB	Yes	AM	4/17/14	Thursday	1752	73.00	1	1%
16	McPherson	McPherson	1800 block of N. Main	No	PM	4/4/14	Friday			0	
			1800 block of N. Main	No	AM	4/12/14	Saturday			0	
			1800 block of N. Main	No	PM	4/13/14	Sunday			0	
			1800 block of N. Main	No	AM	4/17/14	Thursday			0	
			1800 block of N. Main	No	AM	4/18/14	Friday			0	
			1800 block of N. Main	No	PM	4/24/14	Thursday			0	
			1800 block of N. Main	No	AM	5/1/14	Thursday			0	
			1800 block of N. Main	No	AM	5/2/14	Friday			0	
17	McPherson	McPherson	1300 to 700 block of S Main	No	PM	4/5/14	Saturday			0	
			1300 to 700 block of S Main	No	AM	4/12/14	Saturday			0	
			1300 to 700 block of S Main	No	AM	4/13/14	Sunday			0	
			1300 to 700 block of S Main	No	AM	4/14/14	Monday			0	
			1300 to 700 block of S Main	No	PM	4/19/14	Saturday			0	
			1300 to 700 block of S Main	No	PM	4/21/14	Monday			0	

			1300 to 700 block of S Main	No	PM	4/24/14	Thursday			0	
			1300 to 700 block of S Main	No	PM	4/29/14	Tuesday			0	
			1300 to 700 block of S Main	No	PM	4/30/14	Wednesday			0	
			1300 to 700 block of S Main	No	AM	5/2/14	Friday			0	
18	McPherson		I-135 & K-61 junction	Yes	PM	4/8/14	Tuesday	3020	125.83	9	7%
			I-135 & K-61 junction	Yes	AM	4/9/14	Wednesday	3020	125.83	15	12%
19	McPherson		U-56& 27TH Ave.	Yes	AM	4/10/2014	Thursday	905	37.71	1	3%
			U-56& 27TH Ave.	Yes	PM	4/11/2014	Friday	905	37.71	1	3%
			U-56& 27TH Ave.	Yes	PM	4/22/2014	Tuesday	905	37.71	1	3%
20	McPherson		14TH & Pawnee	No	PM	4/7/2014	Monday			8	
21	McPherson		Business 81 & Smokey Valley Rd	Yes	AM	4/7/2014	Monday	3250	135.42	5	4%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**
22	Harvey		K-196 & I-135 Exit 25	No	PM	6/9/14	Monday	253	10.54	5	47%
23	Harvey		I-135 and U-50 junction	No	PM	6/10/14	Tuesday	4670	194.58	7	4%
24	Harvey		I-135 Hesston Exit 40	Yes	AM	6/10/14	Tuesday	3100	129.17	6	5%
25	Harvey		U-50 at Walton	Yes	PM	6/9/14	Monday	1640	68.33	1	1%
26	Harvey		U-50 at Burrton	Yes	AM	6/10/14	Tuesday	1310	54.58	5	9%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**

27	Marion		U-50 & Old Mill Road	Yes	PM	4/18/14	Friday	1620	67.50	2	3%
			U-50 & Old Mill Road	Yes	PM	4/21/14	Monday	1620	67.50	1	1%
28	Marion		U-56 & U-77	Yes	PM	4/11/14	Friday	1195	49.79	4	8%
			U-56 & U-77	Yes	PM	5/16/14	Friday	1195	49.79	4	8%
29	Marion		K-15 & U-56	Yes	PM	4/21/14	Wednesday	1040	43.33	1	2%
30	Marion		U-77 & 290th Rd	Yes	PM	4/22/14	Tuesday	455	18.96	3	16%
			U-77 & 290th Rd	Yes	PM	5/18/14	Sunday	455	18.96	1	5%
31	Marion		U-56 & U-77	Yes	AM	4/12/14	Saturday	1905	79.38	2	3%
			U-56 & U-77	Yes	PM	4/23/14	Wednesday	1905	79.38	5	6%
			U-56 & U-77	Yes	PM	4/24/14	Thursday	1905	79.38	0	0%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**
32	Sedgwick		K-96/295TH W.	Yes	AM	4/29/14	Tuesday	1380	57.50	10	17%
			K-96/295TH W.	Yes	PM	4/29/14	Tuesday	1380	57.50	6	10%
			K-96/295TH W.	Yes	PM	5/1/14	Thursday	1380	57.50	7	12%
33	Sedgwick		K-96/311TH St. W	Yes	PM	4/28/14	Monday	2692	112.17	7	6%
			K-96/311TH St. W	Yes	AM	4/29/14	Tuesday	2692	112.17	7	6%
			K-96/311TH St. W	Yes	PM	4/29/14	Tuesday	2692	112.17	10	9%
			K-96/311TH St. W	Yes	AM	4/30/14	Wednesday	2692	112.17	7	6%
			K-96/311TH St. W	Yes	PM	4/30/14	Wednesday	2692	112.17	6	5%

			K-96/311TH St. W	Yes	AM	5/1/14	Thursday	2692	112.17	2	2%
			K-96/311TH St. W	Yes	PM	5/1/14	Thursday	2692	112.17	10	9%
			K-96/311TH St. W	Yes	AM	5/2/14	Friday	2692	112.17	4	4%
			K-96/311TH St. W	Yes	PM	5/2/14	Friday	2692	112.17	5	4%
34	Sedgwick		K-96/151ST W	No	AM	4/29/14	Tuesday			12	
35	Sedgwick		K-96/MP-300. 2 & 127th	Yes	AM	5/15/14	Thursday	6080	253.33	5	2%
			K-96/MP-300. 2 & 127th	Yes	AM	5/19/14	Monday	6080	253.33	4	2%
			K-96/MP-300. 2 & 127th	Yes	AM	5/20/14	Tuesday	6080	253.33	4	2%
36	Sedgwick		I135/125TH N.	No	AM	5/1/14	Thursday	12264	511.00	5	1%
37	Sedgwick		I-135/101ST N.	Yes	PM	4/29/14	Tuesday	12264	511.00	4	1%
38	Sedgwick		I-135/109TH N.	No	PM	4/30/14	Wednesday	12264	511.00	6	1%
39	Sedgwick		K-254/15500 E (Sheets did not have travel on them)	No	AM	4/28/14	Monday	2225	92.71	4	4%
			K-254/15500 E	Yes	PM	4/28/14	Monday	2225	92.71	6	6%
			K-254/15500 E	Yes	AM	4/29/14	Tuesday	2225	92.71	13	14%
			K-254/15500 E	Yes	PM	4/29/14	Tuesday	2225	92.71	7	8%
			K-254/15500 E	Yes	AM	4/30/14	Wednesday	2225	92.71	5	5%
			K-254/15500 E	Yes	PM	4/30/14	Wednesday	2225	92.71	9	10%
			K-254/15500 E	Yes	AM	5/01/14	Thursday	2225	92.71	9	10%

			K-254/15500 E	Yes	PM	5/01/14	Thursday	2225	92.71	4	4%
40	Sedgwick		U-54/E of I-135	Yes	PM	5/21/14	Wednesday	3568	148.67	4	3%
41	Sedgwick		U-54/183RD	Yes	PM	5/1/14	Thursday	1290	53.75	4	7%
42	Sedgwick		U-54/407TH W.	Yes	AM	4/28/14	Monday	1290	53.75	4	7%
			U-54/407TH W.	Yes	AM	4/29/14	Tuesday	1290	53.75	5	9%
			U-54/407TH W.	Yes	PM	4/30/14	Wednesday	1290	53.75	2	4%
			U-54/407TH W.	Yes	AM	5/1/14	Thursday	1290	53.75	2	4%
			U-54/407TH W.	Yes	PM	5/1/14	Thursday	1290	53.75	3	6%
43	Sedgwick		I-135/12500 N.	Yes	PM	4/29/14	Tuesday	5562	231.75	11	5%
			I-135/12500 N.	Yes	PM	5/1/14	Thursday	5562	231.75	7	3%
44	Sedgwick		I-135/AT 10500 St. N.	Yes	AM	4/29/14	Tuesday	5562	231.75	6	3%
			I-135/AT 10500 St. N.	Yes	AM	5/1/14	Thursday	5562	231.75	4	2%
			I-135/AT 10500 St. N.	Yes	AM	5/2/14	Friday	5562	231.75	7	3%
			I-135/AT 10500 St. N.	Yes	PM	5/2/14	Friday	5562	231.75	6	3%
45	Sedgwick		U-54/143RD E.	Yes	AM	5/15/14	Thursday	3568	148.67	5	3%
			U-54/143RD E.	Yes	AM	5/19/14	Monday	3568	148.67	5	3%
			U-54/143RD E.	Yes	PM	5/19/14	Monday	3568	148.67	2	1%
46	Sedgwick	Goddard	U-54/199TH	Yes	AM	5/22/14	Thursday	1550	64.58	13	20%
47	Sedgwick		I-135/ & Wassall (Walk Over Bridge)	Yes	PM	5/2/14	Friday	10016	417.33	11	3%

			I-135/ & Wassall (Walk Over Bridge)	Yes	AM	5/3/14	Saturday	10016	417.33	7	2%
			I-135/ & Wassall (Walk Over Bridge)	Yes	AM	5/4/14	Sunday	10016	417.33	8	2%
48	Sedgwick		I-135/At Wassell & Spruce	Yes	PM	5/21/14	Wednesday	10016	417.33	13	3%
49	Sedgwick		Broadway 7100 S	No	PM	4/28/14	Monday			0	
			Broadway 7100 S	No	PM	5/1/14	Thursday			1	
			Broadway 7100 S	No	PM	5/7/14	Wednesday			0	
50	Sedgwick		71ST SO. & 19th St. E.	No	AM	4/30/14	Wednesday			2	
51	Sedgwick		K-42/ & 11900 W	Yes	AM	4/28/14	Monday	530	22.08	2	9%
			K-42/ & 11900 W	Yes	PM	4/28/14	Monday	530	22.08	0	0%
			K-42/ & 11900 W	Yes	AM	4/29/14	Tuesday	530	22.08	4	18%
			K-42/ & 11900 W	Yes	PM	4/29/14	Tuesday	530	22.08	0	0%
			K-42/ & 11900 W	Yes	AM	4/30/14	Wednesday	530	22.08	0	0%
			K-42/ & 11900 W	Yes	PM	4/30/14	Wednesday	530	22.08	0	0%
			K-42/ & 11900 W	Yes	AM	5/1/14	Thursday	530	22.08	2	9%
			K-42/ & 11900 W	Yes	PM	5/1/14	Thursday	530	22.08	0	0%
			K-42/ & 11900 W	Yes	AM	5/2/14	Friday	530	22.08	1	5%
			K-42/ & 11900 W	Yes	PM	5/2/14	Friday	530	22.08	1	5%
52	Sedgwick		K-42/135TH West	Yes	AM	5/2/14	Friday	530	22.08	1	5%
53	Sedgwick		K-42/263rd West	Yes	AM	5/2/14	Friday	530	22.08	4	18%
54	Sedgwick		K-42/K-49 JCT.	Yes	AM	5/22/14	Thursday	385	16.04	6	37%
55	Sedgwick		KTA/ I-35 EXIT 45	No	AM	5/16/14	Friday			8	
				No	PM	5/19/14	Monday			4	
				No	PM	5/20/14	Tuesday			3	

56	Sedgwick		KTA/South Wichita Terminal	No	AM	5/15/14	Thursday			17	
				No	AM	5/16/14	Friday			16	
				No	PM	5/19/14	Monday			17	
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**
57	Butler	El Dorado	Hwy 254 & Haverhill	No	AM	4/9/14	Wednesday			12	
					AM	4/7/14	Monday			12	
					AM	4/11/14	Friday			7	
					PM	4/11/14	Friday			2	
58	Butler	Augusta	Hwy 54 (Hwy 400) & Lulu	No	AM	4/8/14	Tuesday			6	
					PM	4/7/14	Monday			3	
59	Butler	Augusta	Hwy 77 & Hwy 400		PM	4/8/2014	Tuesday			3	
				No	AM	4/10/14	Thursday			0	
60	Butler	El Dorado	Hwy 54 & Hwy 77		AM	4/11/14	Friday	955	39.79	7	18%
			Hwy 54 & Hwy 77		AM	4/7/14	Monday	955	39.79	11	28%
			Hwy 54 & Hwy 77		AM	4/9/14	Wednesday	955	39.79	7	18%
			Hwy 54 & Hwy 77		PM	4/19/14	Saturday	955	39.79	8	20%
61	Butler	El Dorado	6th & Haverhill		AM	4/7/11	Monday			12	
			6th & Haverhill		AM	4/9/11	Wednesday			2	
			6th & Haverhill		AM	4/11/14	Friday			5	
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**
62	Cowley	(10 mi. N of Winfield)	K-15/U-77 Intersection	Yes	AM	4/15/14	Tuesday	995	41.46	2	5%
		(10 mi. N of Winfield)	K-15/U-77 Intersection	Yes	PM	4/24/14	Thursday	995	41.46	3	7%

63	Cowley	(3 mi. W of Winfield)	U-160/21st Road	Yes	PM	4/7/14	Monday	738	30.75	1	3%
		(3 mi. W of Winfield)	U-160/21st Road	Yes	AM	4/30/14	Wednesday	738	30.75	2	7%
64	Cowley	(10 mi E of Winfield)	U-160/K-15 Intersection	Yes	AM	4/12/14	Saturday	285	11.88	0	0%
		(10 mi. E of Winfield)	U-160/K-15 Intersection	Yes	AM	4/21/14	Monday	285	11.88	2	17%
65	Cowley	Arkansas City	U-166/US 77 Intersection	No	PM	4/1/14	Tuesday			3	
			U-166/US 77 Intersection	No	AM	4/22/14	Tuesday			2	
66	Cowley		U-166/K-15 Junction	Yes	PM	4/2/14	Wednesday	120	5.00	2	40%
			U-166/K-15 Junction	Yes	AM	4/4/14	Friday	120	5.00	1	20%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**
67	Sumner		Hwy. 81 & Hwy. 166	Yes	AM	3/21/14	Friday	400	16.67	9	54%
68	Sumner		Hwy. 81 & Hwy. 53	No	PM	3/31/14	Friday			1	
69	Sumner		Hwy. 160 & Hwy. 49	Yes	AM	3/20/14	Thursday	315	13.13	1	8%
70	Sumner		Hwy. 160 & Oliver Road	Yes	AM	3/19/14	Wednesday	395	16.46	4	24%
71	Sumner		I35 and 60th St S		AM	4/18/14	Friday	4020	167.50	10	6%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**

72	Harper	Harper	US 160, K-14, & K-2 junction	Yes	AM	5/15/14	Thursday	985	41.04	1	2%
73	Harper	Anthony	K-2, K-44, & K-179	Yes	PM	5/15/14	Thursday	475	19.79	5	25%
74	Harper	State Line	K-179 & SW 106 Rd	Yes	AM	5/18/14	Sunday	200	8.33	4	48%
75	Harper	Attica	U-160 & NW 60 Rd	Yes	AM	5/18/14	Sunday	250	10.42	3	29%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**
76	Kingman	Kingman	Main Street (Hwy 14) & U-54/400	Yes	PM	6/11/14	Wednesday	1500	62.50	10	16%
77	Kingman	Norwich	Main Street & K 42 Hwy.	Yes	AM	6/11/14	Wednesday	95	3.96	7	177%
78	Kingman	Cunningham	U-54/400 at Valley Street	Yes	AM	6/11/14	Wednesday	1150	47.92	13	27%
79	Kingman	S of Kingman	Intersections of Hwy 14 & Hwy K-42	Yes	AM	6/11/14	Wednesday	360	15.00	10	67%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**
80	Stafford		U-50 & U-281 intersection	Yes	AM	6/11/14	Sunday	1155	48.13	4	8%
81	Stafford		NE 80th Ave & NE 100th St		AM	6/11/14	Sunday			0	
82	Stafford		U-281 & K19 intersection	Yes	PM	6/11/14	Sunday	700	29.17	7	24%
83	Stafford		U-50 & NW 70th Ave	Yes	AM	6/11/14	Sunday	685	28.54	3	11%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**

84	Barber	Medicine Lodge	U-281 & 1st Street	Yes	AM	6/10/14	Saturday	335	13.96	3	21%
85	Barber		U-160 at Sharon	Yes	AM	6/10/14	Saturday	255	10.63	4	38%
86	Barber	Kiowa	K-2 & K-8	No	AM	6/10/14	Saturday			6	

Map Reference	County	City	Location	KDOT Traffic Count	Time	date	Weekday	Truck Count	Trucks per Hour	Placard Count	Percentage
87	Comanche		Immediately E. of the N. U-160/183 junction	Yes	AM	5/16/14	Friday	235	9.79	3	31%
88	Comanche		Immediately W. of the S. U-160/183 junction	Yes	AM	5/12/14	Monday	165	6.88	5	73%
89	Comanche	N of Coldwater	U-183	Yes	AM	5/13/14	Tuesday	290	12.08	4	33%
90	Comanche	S of Coldwater	U-183	Yes	AM	5/13/14	Tuesday	325	13.54	8	59%

Map Reference	County	City	Location	KDOT Traffic Count	Time	date	Weekday	Truck Count	Trucks per Hour	Placard Count	Percentage
91	Pratt		U-Hwy 54 & U-281 junction	Yes	AM	4/30/14	Wednesday	2120	88.33	23	26%
92	Pratt		U-Hwy 54 & K-61 Hwy junction	Yes	PM	5/14/14	Wednesday	800	33.33	3	9%
93	Pratt		K-61 Hwy & NE 30th St	Yes	PM	5/15/14	Thursday	760	31.67	0	0%
94	Pratt		K-61 Hwy & NE 20th Ave	Yes	PM	5/28/14	Wednesday	80	3.33	2	60%
95	Pratt		U-Hwy 54 & NW 70th Ave	Yes	AM	6/3/14	Tuesday	1680	70.00	0	0%
96	Pratt		U-Hwy 54 & NE 100th Ave			Did not Have this info			0.00		
97	Pratt		NE 70th St & 70th Ave	Yes	AM	6/3/14	Tuesday	760	31.67	1	3%

Map Reference	County	City	Location	KDOT Traffic Count	Time	date	Weekday	Truck Count	Trucks per Hour	Placard Count	Percentage
98	Kiowa	Greensburg East/West	U-54/183 junction	Yes	AM	6/11/14	Tuesday	280	11.67	9	75%
99	Kiowa	Greensburg North/South	U-54/183 junction	Yes	AM	6/11/14	Tuesday	1730	72.08	5	7%
100	Kiowa	Mullinville	U-400/ at Mullinville	Yes	AM	6/11/14	Tuesday	500	20.83	3	14%
101	Kiowa	Haviland	U-54/MP 116 at Haviland	Yes	PM	6/11/14	Tuesday	1630	67.92	3	4%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**
102	Edwards		U-50/183 JCT	Yes	PM	4/10/14	Thursday	815	33.96	10	29%
			U-50/183 JCT	Yes	AM	4/11/14	Friday	815	33.96	6	18%
103	Edwards		U-56/183 JCT.	Yes	AM	3/31/14	Monday	730	30.42	3	10%
			U-56/183 JCT.	Yes	AM	4/15/14	Tuesday	730	30.42	6	20%
104	Edwards		U-50/56 junction	Yes	AM	4/16/14	Wednesday	1670	69.58	7	10%
105	Edwards	Belpre	K-19	Yes	AM	4/23/14	Wednesday	690	28.75	3	10%
106	Edwards	Offerle	U-50/56	Yes	PM	4/23/14	Wednesday	1020	42.50	15	35%
107	Edwards		U-183 MP-73	Yes	AM	4/30/14	Wednesday	145	6.04	3	50%
Map Reference	**County**	**City**	**Location**	**KDOT Traffic Count**	**Time**	**date**	**Weekday**	**Truck Count**	**Trucks per Hour**	**Placard Count**	**Percentage**
108	Pawnee		K-156 & K-183 junction	Yes	AM	6/10/14	Monday	505	21.04	1	5%
109	Pawnee		U-56 &K-183 junction	Yes	AM	6/10/14	Monday	815	33.96	2	6%
110	Pawnee		K-19 Jct. (E & S)	Yes	PM	6/10/14	Monday	175	7.29	0	0%

111	Pawnee	Larned	U-56 & K-156 junction	Yes	PM	6/10/14	Monday	1335	55.63	2	4%

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
15	McPherson	McPherson	Fire Station U-56/ EB & WB	4/1/14	3	Tuesday
			Fire Station U-56/ EB & WB	4/3/14	3	Thursday
			Fire Station U-56/ EB & WB	4/5/14	2	Saturday
			Fire Station U-56/ EB & WB	4/7/14	3	Monday
			Fire Station U-56/ EB & WB	4/9/14	3	Wednesday
			Fire Station U-56/ EB & WB	4/11/14	2	Friday
			Fire Station U-56/ EB & WB	4/13/14	3	Sunday
			Fire Station U-56/ EB & WB	4/15/14	5	Tuesday
			Fire Station U-56/ EB & WB	4/17/14	2	Thursday
16	McPherson	McPherson	1800 block of N. Main	4/4/14	1	Friday
			1800 block of N. Main	4/12/14	1	Saturday
			1800 block of N. Main	4/13/14	1	Sunday
			1800 block of N. Main	4/17/14	2	Thursday
			1800 block of N. Main	4/18/14	1	Friday
			1800 block of N. Main	4/24/14	1	Thursday
			1800 block of N. Main	5/1/14	1	Thursday
			1800 block of N. Main	5/2/14	1	Friday
17	McPherson	McPherson	1300 to 700 block of S Main	4/5/14	1	Saturday
			1300 to 700 block of S Main	4/12/14	2	Saturday
			1300 to 700 block of S Main	4/13/14	1	Sunday
			1300 to 700 block of S Main	4/14/14	2	Monday
			1300 to 700 block of S Main	4/19/14	1	Saturday
			1300 to 700 block of S Main	4/21/14	1	Monday
			1300 to 700 block of S Main	4/24/14	1	Thursday
			1300 to 700 block of S Main	4/29/14	1	Tuesday
			1300 to 700 block of S Main	4/30/14	1	Wednesday
			1300 to 700 block of S Main	5/2/14	1	Friday
18	McPherson		I-135 & K-61 junction	4/8/14	1	Tuesday
			I-135 & K-61 junction	4/9/14	1	Wednesday
19	McPherson		U-56& 27TH Ave.	4/10/2014	1	Thursday
			U-56& 27TH Ave.	4/11/2014	1	Friday
			U-56& 27TH Ave.	4/22/2014	1	Tuesday
20	McPherson		14TH & Pawnee	4/7/2014	2	Monday
21	McPherson		Business 81 & Smokey Valley Rd	4/7/2014	1	Monday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
22	Harvey		K-196 & I-135 Exit 25	6/9/14	2	Monday
23	Harvey		U-50 at Walton	6/9/14	2	Monday
24	Harvey		I-135 and U-50 junction	6/10/14	2	Tuesday
25	Harvey		I-135 Hesston Exit 40	6/10/14	2	Tuesday
26	Harvey		U-50 at Burrton	6/10/14	2	Tuesday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
27	Marion		U-50 & Old Mill Road	4/18/14	1	Friday
28	Marion		U-56 & U-77	4/11/14	4	Friday
			U-56 & U-77	5/16/14	4	Friday
29	Marion		K-15 & U-56	4/21/14	2	Monday
30	Marion		U-77 & 290th Rd	4/22/14	2	Tuesday
			U-77 & 290th Rd	5/18/14	2	Sunday
31	Marion		U-56 & U-77	4/12/14	2	Saturday
			U-56 & U-77	4/23/14	2	Wednesday
			U-56 & U-77	4/24/14	2	Thursday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
32	Sedgwick		K-96/295TH W.	4/29/14	2	Tuesday
			K-96/295TH W.	5/1/14	1	Thursday
33	Sedgwick		K-96/311TH St. W	4/28/14	2	Monday
			K-96/311TH St. W	4/29/14	3	Tuesday
			K-96/311TH St. W	4/30/14	3	Wednesday
			K-96/311TH St. W	5/1/14	3	Thursday
			K-96/311TH St. W	5/2/14	2	Friday
34	Sedgwick		K-96/151ST W	4/29/14	1	Tuesday
35	Sedgwick		K-96/MP-300. 2 & 127th	5/15/14	1	Thursday
			K-96/MP-300. 2 & 127th	5/19/14	1	Monday
			K-96/MP-300. 2 & 127th	5/20/14	1	Tuesday
36	Sedgwick		I135/125TH N.	4/29/14	1	Tuesday
			I135/125TH N.	5/1/14	1	Thursday
37	Sedgwick		I-135/101ST N.	4/29/14	1	Tuesday
38	Sedgwick		I-135/109TH N.	4/30/14	1	Wednesday
39	Sedgwick		K-254/15500 E	4/28/14	2	Monday
			K-254/15500 E	4/29/14	3	Tuesday
			K-254/15500 E	4/30/14	2	Wednesday
			K-254/15500 E	5/01/14	2	Thursday
40	Sedgwick		U-54/E of I-135	5/21/14	1	Wednesday
41	Sedgwick		U-54/183RD	5/1/14	3	Thursday
42	Sedgwick		U-54/407TH W.	4/28/14	1	Monday
			U-54/407TH W.	4/29/14	1	Tuesday
			U-54/407TH W.	4/30/14	1	Wednesday
			U-54/407TH W.	5/1/14	3	Thursday
43	Sedgwick		I-135/12500 N.	5/1/14	1	Thursday
44	Sedgwick		I-135/AT 10500 St. N.	4/29/14	1	Tuesday
			I-135/AT 10500 St. N.	5/1/14	1	Thursday
			I-135/AT 10500 St. N.	5/2/14	2	Friday
45	Sedgwick		U-54/143RD E.	5/15/14	1	Thursday
			U-54/143RD E.	5/19/14	2	Monday
46	Sedgwick	Goddard	U-54/199TH	5/22/14	3	Thursday

47	Sedgwick		I-135/ & Wassall (Walk Over Bridge)	5/2/14	2	Friday
			I-135/ & Wassall (Walk Over Bridge)	5/3/14	1	Saturday
			I-135/ & Wassall (Walk Over Bridge)	5/4/14	1	Sunday
48	Sedgwick		I-135/At Wassell & Spruce	5/21/14	1	Wednesday
49	Sedgwick		Broadway 7100 S	4/28/14	1	Monday
			Broadway 7100 S	5/1/14	1	Thursday
			Broadway 7100 S	5/7/14	1	Wednesday
50	Sedgwick		71ST SO. & 19th St. E.	4/30/14	3	Wednesday
51	Sedgwick		K-42/ & 11900 W	4/28/14	2	Monday
			K-42/ & 11900 W	4/29/14	2	Tuesday
			K-42/ & 11900 W	4/30/14	2	Wednesday
			K-42/ & 11900 W	5/1/14	2	Thursday
			K-42/ & 11900 W	5/2/14	2	Friday
52	Sedgwick		K-42/135TH West	5/2/14	3	Friday
53	Sedgwick		K-42/263rd West	5/2/14	3	Friday
54	Sedgwick		K-42/K-49 JCT.	5/22/14	2	Thursday
55	Sedgwick		KTA/ I-35 EXIT 45	5/16/14	1	Friday
				5/19/14	1	Monday
				5/20/14	1	Tuesday
56	Sedgwick		KTA/South Wichita Terminal	5/15/14	1	Thursday
				5/16/14	1	Friday
				5/19/14	1	Monday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
57	Butler	El Dorado	Hwy 254 & Haverhill	4/7/14	1	Monday
				4/9/14	1	Wednesday
				4/11/14	2	Friday
58	Butler	Augusta	Hwy 54 (Hwy 400) & Lulu	4/7/14	1	Monday
				4/8/14	2	Tuesday
				4/10/14	1	Thursday
59	Butler	Augusta	Hwy 77 & Hwy 400	4/8/2014	2	Tuesday
				4/10/14	1	Thursday
60	Butler	El Dorado	Hwy 54 & Hwy 77	4/7/14	1	Monday
			Hwy 54 & Hwy 77	4/9/14	1	Wednesday
			Hwy 54 & Hwy 77	4/11/14	1	Friday
			Hwy 54 & Hwy 77	4/19/14	1	Saturday
61	Butler	El Dorado	6th & Haverhill	4/7/11	1	Monday
			6th & Haverhill	4/9/11	1	Wednesday
			6th & Haverhill	4/11/14	1	Friday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
62	Cowley	(10 mi. N of Winfield)	K-15/U-77 Intersection	4/15/14	1	Tuesday
		(10 mi. N of Winfield)	K-15/U-77 Intersection	4/24/14	1	Thursday
63	Cowley	(3 mi. W of Winfield)	U-160/21st Road	4/7/14	1	Monday
		(3 mi. W of Winfield)	U-160/21st Road	4/30/14	1	Wednesday
64	Cowley	(10 mi E of Winfield)	U-160/K-15 Intersection	4/12/14	1	Saturday
		(10 mi. E of Winfield)	U-160/K-15 Intersection	4/21/14	1	Monday
65	Cowley	Arkansas City	U-166/US 77 Intersection	4/1/14	1	Tuesday
			U-166/US 77 Intersection	4/22/14	1	Tuesday
66	Cowley		U-166/K-15 Junction	4/2/14	1	Wednesday
			U-166/K-15 Junction	4/4/14	1	Friday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
67	Sumner		Hwy. 81 & Hwy. 166	3/21/14	1	Friday
66	Sumner		Hwy. 160 & Oliver Road	3/19/14	1	Wednesday
69	Sumner		Hwy. 160 & Hwy. 49	3/20/14	1	Thursday
70	Sumner		Hwy. 81 & Hwy. 53	3/31/14	1	Friday
71	Sumner		I35 and 60th St S	4/18/14	1	Friday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
72	Harper	Harper	US 160, K-14, & K-2 junction	5/15/14	1	Thursday
73	Harper	Anthony	K-2, K-44, & K-179	5/15/14	1	Thursday
74	Harper	State Line	K-179 & SW 106 Rd	5/18/14	1	Sunday
75	Harper	Attica	U-160 & NW 60 Rd	5/18/14	1	Sunday

Map Reference	County	City	Location	date	Counts Conducted	Weekday
76	Kingman	Kingman	Main Street (Hwy 14) & U-54/400	6/11/14	2	Wednesday
77	Kingman	Norwich	Main Street & K 42 Hwy.	6/11/14	1	Wednesday
78	Kingman	Cunningham	U-54/400 at Valley Street	6/11/14	2	Wednesday
79	Kingman	S of Kingman	Intersections of Hwy 14 & Hwy K-42	6/11/14	2	Wednesday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
80	Stafford		U-50 & U-281 intersection	6/11/14	1	Wednesday
81	Stafford		NE 80th Ave & NE 100th St	6/11/14	1	Wednesday
82	Stafford		U-281 & K19 intersection	6/11/14	1	Wednesday
83	Stafford		U-50 & NW 70th Ave	6/11/14	1	Wednesday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
84	Barber	Medicine Lodge	U-281 & 1st Street	6/10/14	1	Saturday
85	Barber		U-160 at Sharon	6/10/14	1	Saturday
86	Barber	Kiowa	K-2 & K-8	6/10/14	1	Saturday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
87	Comanche		U-183 and U-160	5/12/14	1	Monday
88	Comanche		U-183 and U-160	5/16/14	1	Friday
89	Comanche	N of Coldwater	KS-1/U-183/U-160	5/13/14	1	Tuesday
90	Comanche	S of Coldwater	KS-1/U-183/U-160	5/13/14	1	Tuesday

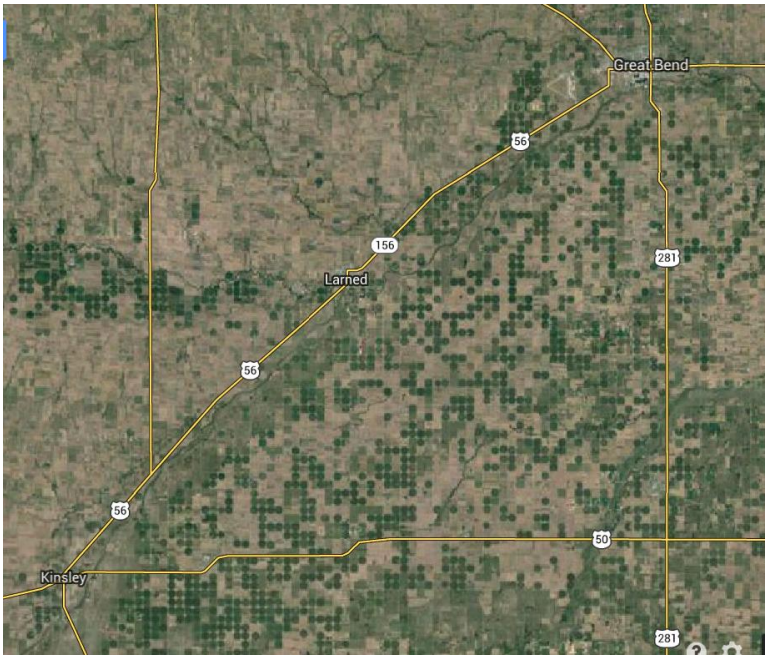
Map Reference	County	City	Location	Date	Counts Conducted	Weekday
91	Pratt		U-Hwy 54 & U-281 junction	4/30/14	2	Wednesday
92	Pratt		U-Hwy 54 & K-61 Hwy junction	5/14/14	1	Wednesday
93	Pratt		K-61 Hwy & NE 30th St	5/15/14	1	Thursday
94	Pratt		K-61 Hwy & NE 20th Ave	5/28/14	1	Wednesday
95	Pratt		U-Hwy 54 & NW 70th Ave	6/3/14	1	Tuesday
97	Pratt		NE 70th St & 70th Ave	6/3/14	1	Tuesday
96	Pratt		U-Hwy 54 & NE 100th Ave		1	

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
98	Kiowa	Greensburg East/West	U-54/183 junction	5/15/14	1	Thursday
99	Kiowa	Greensburg North/South	U-54/183 junction	5/15/14	1	Thursday
100	Kiowa	Mullinville	U-400/ at Mullinville	5/15/14	1	Thursday
101	Kiowa	Haviland	U-54/MP 116 at Haviland	5/15/14	1	Thursday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
102	Edwards		U-50/183 JCT	4/10/14	2	Thursday
			U-50/183 JCT	4/11/14	2	Friday
103	Edwards		U-56/183 JCT.	3/31/14	2	Monday
			U-56/183 JCT.	4/15/14	2	Tuesday
104	Edwards		U-50/56 junction	4/16/14	2	Wednesday
				4/23/14	2	Tuesday
105	Edwards	Belpre	K-19	4/23/14	2	Tuesday
106	Edwards	Offerle	U-50/56	4/23/14	1	Tuesday
107	Edwards		U-183 MP-73	4/30/14	2	Tuesday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
108	Pawnee		K-156 & K-183 junction	6/10/14	1	Tuesday
109	Pawnee		U-56 & K-183 junction	6/10/14	1	Tuesday
110	Pawnee		K-19 Jct. (E & S)	6/10/14	1	Tuesday
111	Pawnee	Larned	U-56 & K-156 junction	6/10/14	1	Tuesday

Map Reference	County	City	Location	Date	Counts Conducted	Weekday
112	Barton	Hoisington	K-281 & K-4	6/11/14	1	Wednesday
113	Barton	Great Bend	K-281/ N. of Arkansas Bridge	6/11/14	1	Wednesday
114	Barton	Great Bend	U-56 & Patton Rd	6/11/14	1	Wednesday
115	Barton	Great Bend	U-56 & K-156	6/11/14	1	Wednesday



Segment 1 Kinsley to Great Bend Highway 56

County	Location	Time	Date	Weekday	Placard Count
Barton	U-56 & K-156	1245	6/11/14	Wednesday	3
Pawnee	U-56 & K-156 junction	1330	6/10/14	Tuesday	2
Barton	U-56 & Patton Rd	1130	6/11/14	Wednesday	2
Pawnee	U-56 &K-183 junction	0945	6/10/14	Tuesday	2
Edwards	U-56/183 JCT.	1400	3/31/14	Monday	2
Edwards	U-56/183 JCT.	1300	3/31/14	Monday	1
Edwards	U-56/183 JCT.	1025	4/15/14	Tuesday	4
Edwards	U-56/183 JCT.	1300	4/15/14	Tuesday	2

Segment 1 Hazmat Presence										
Class	1	2	3	4	5	7	8	9	10	Placard Total
Count		8	6			1	2	1		18



Segment 2 Highway 56Great Bend to McPherson

County	Location	Time	Date	Weekday	Placard Count
Rice	U-56 & 15th Rd	1255	5/7/14	Wednesday	1
Rice	U-56 & 15th Rd	1545	4/30/14	Wednesday	3
Rice	U-56 & 17th Rd	0930	5/7/14	Wednesday	5
Barton	U-56 & K-156	1245	6/11/14	Wednesday	3
Barton	U-56 & Patton Rd	1130	6/11/14	Wednesday	2
McPherson	U-56& 27TH Ave.	1015	4/10/14	Thursday	1
McPherson	U-56& 27TH Ave.	1300	4/11/14	Friday	1
McPherson	U-56& 27TH Ave.	0830	4/22/14	Tuesday	1

Segment 2 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		8	6				3			17



Segment 3 McPherson to Marion Highway 56

County	Location	Time	Date	Weekday	Placard Count
Marion	U-56 & U-77	1400	4/11/14	Friday	4
Marion	U-56 & U-77	1200	5/16/14	Friday	4
McPherson	U-56& 27TH Ave.	1015	4/10/14	Thursday	1
McPherson	U-56& 27TH Ave.	1300	4/11/14	Friday	1
McPherson	U-56& 27TH Ave.	0830	4/22/14	Tuesday	1

Segment 3 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		3	6				2			11



Segment 4 U-183 Comanche County to Kinsley

County	Location	Time	Date	Weekday	Placard Count
Comanche	U-183	0930	5/13/14	Tuesday	12
Edwards	U-183 MP-73	0815	4/30/14	Wednesday	3
Kiowa	U-54/183 junction	1015	6/11/14	Wednesday	14

Segment 4 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		15	14							29



Segment 5 US 50 from Kinsley to the Intersection of US 50 and US 281

County	Location	Time	Date	Weekday	Placard Count
Stafford	U-50 & NW 70th Ave	0800	6/11/14	Tuesday	3
Stafford	U-50 & U-281 intersection	0915	6/11/14	Tuesday	4
Edwards	U-50/183 JCT	1430	4/10/14	Thursday	10
Edwards	U-50/183 JCT	1000	4/11/14	Friday	6
Edwards	U-50/56	1230	4/23/14	Wednesday	15
Edwards	U-50/56 junction	0910	4/16/14	Wednesday	7

Segment 5 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		19	25			1				45



Segment 6 from the intersection of U-50 and U-281 to the Intersection of U-50 and Highway 61

County	Location	Time	Date	Weekday	Placard Count
Stafford	U-50 & NW 70th Ave	0800	6/11/14	Wednesday	3
Reno	U-50 & Partridge Rd	0938	5/28/14	Wednesday	9
Stafford	U-50 & U-281 intersection	0915	6/11/14	Wednesday	4

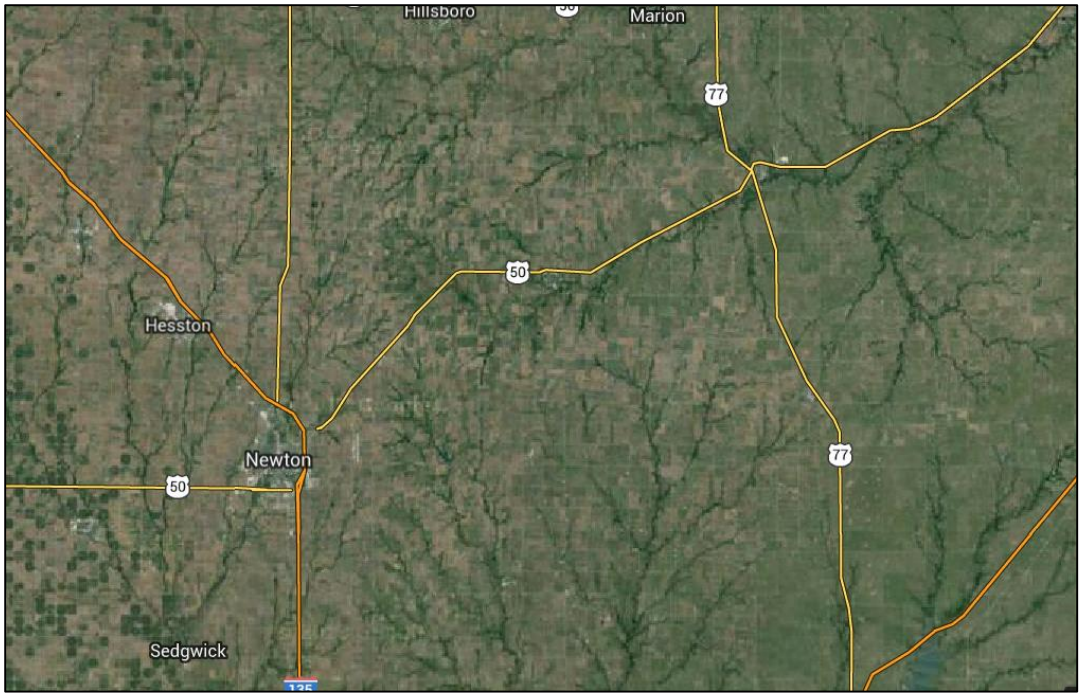
Segment 6 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		6	7				1	2		16



Segment 7 U-50 from Hutchinson to Newton

County	Location	Time	Date	Weekday	Placard Count
Reno	U-50 & Partridge Rd	0938	5/28/14	Wednesday	9
Harvey	U-50 at Burrton	0920	6/10/14	Tuesday	5
Harvey	U-50 at Walton	1600	6/9/14	Monday	1

Segment 7 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		9	3				1	2		15



Segment 8 U-50 from Newton to Florence

County	Location	Time	Date	Weekday	Placard Count
Marion	U-50 & Old Mill Road	1200	4/18/14	Friday	1
Marion	U-50 & Old Mill Road	1930	4/21/14	Monday	2
Harvey	U-50 at Burrton	0920	6/10/14	Tuesday	5
Harvey	U-50 at Walton	1600	6/9/14	Monday	1

Segment 8 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		5	2				2			9



Segment 9 U-281 from Oklahoma border to Great Bend

County	Location	Time	Date	Weekday	Placard Count
Barber	U-281 & 1st Street	1100	6/10/14	Tuesday	3
Barton	K-281/ N. of Arkansas Bridge	1000	6/11/14	Wednesday	5
Pratt	U-Hwy 54 & U-281 junction	0950	4/30/14	Wednesday	23
Stafford	U-281 & K19 intersection	1200	6/11/14	Wednesday	7

Segment 9 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		19	14		1		1	2	1	38



Segment 10 U-281 from Great Bend to Hoisington

County	Location	Time	Date	Weekday	Placard Count
Barton	K-281 & K-4	0830	6/11/14	Wednesday	10

Segment 10 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count			8	1				1		10



Segment 11 U-54/400 from Greensburg to Pratt

County	Location	Time	Date	Weekday	Placard Count
Kiowa	U-400/ at Mullinville	1518	6/15/14	Sunday	3
Kiowa	U-54/183 junction	1015	6/11/14	Wednesday	14
Pratt	U-Hwy 54 & K-61 Hwy junction	1330	5/14/14	Wednesday	3
Pratt	U-Hwy 54 & NE 100th Ave		Did not Have this info		
Pratt	U-Hwy 54 & NW 70th Ave	0915	6/3/14	Tuesday	0
Pratt	U-Hwy 54 & U-281 junction	0950	4/30/14	Wednesday	23

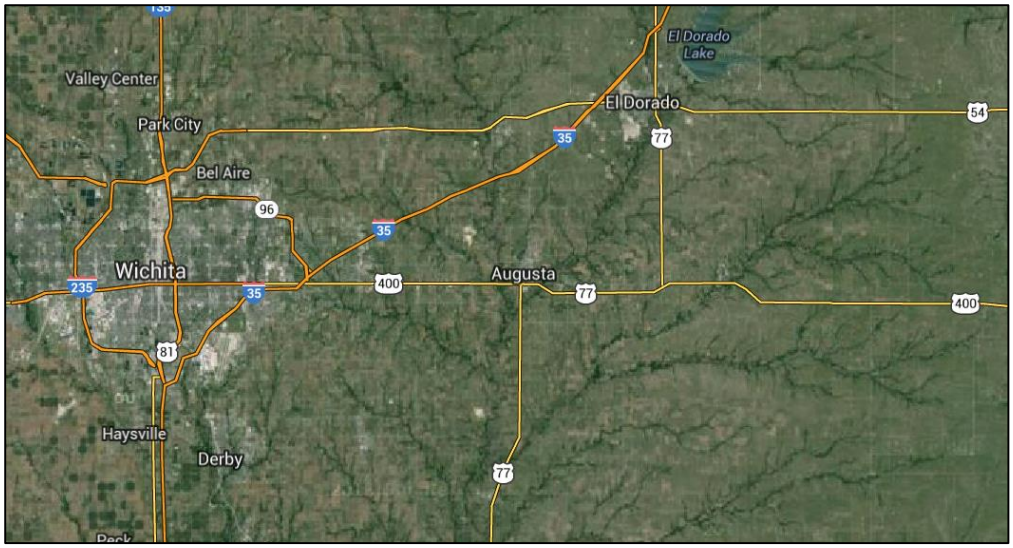
Segment 11 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		30	8		1		1	2	1	43



Segment 12 U-54/400 from Pratt to Wichita

County	Location	Time	Date	Weekday	Placard Count
Pratt	U-Hwy 54 & K-61 Hwy junction	1330	5/14/14	Wednesday	3
Pratt	U-Hwy 54 & NW 70th Ave	0915	6/3/14	Tuesday	0
Pratt	U-Hwy 54 & U-281 junction	0950	4/30/14	Wednesday	23
Kingman	Main Street (Hwy 14) & U-54/400	1230	6/11/14	Wednesday	10
Kingman	U-54/400 at Valley Street	0950	6/11/14	Wednesday	13
Sedgwick	U-54/183RD	1700	5/1/14	Thursday	3
Sedgwick	U-54/183RD	1325	5/14/14	Wednesday	1
Sedgwick	U-54/183RD	1030	5/14/14	Wednesday	2
Sedgwick	U-54/199TH	0910	5/22/14	Thursday	7
Sedgwick	U-54/199TH	1155	5/22/14	Thursday	3
Sedgwick	U-54/199TH	1330	5/22/14	Thursday	3
Sedgwick	U-54/407TH W.	0830	5/1/14	Thursday	2
Sedgwick	U-54/407TH W.	1430	5/1/14	Thursday	2
Sedgwick	U-54/407TH W.	1630	4/28/14	Monday	4
Sedgwick	U-54/407TH W.	1720	4/29/14	Tuesday	5
Sedgwick	U-54/407TH W.	1550	4/30/14	Wednesday	2
Sedgwick	U-54/407TH W.	1645	5/1/14	Thursday	1
Sedgwick	U-54/E of I-135	1238	5/21/14	Wednesday	5

Segment 12 Hazmat Presence											
Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Placard Total**
Count		36	37		1	1		9	4	1	89



Segment 13 U-54/400 from Wichita to Beaumont

County	Location	Time	Date	Weekday	Placard Count
Sedgwick	U-54/183RD	1700	5/1/14	Thursday	3
Sedgwick	U-54/183RD	1325	5/14/14	Wednesday	1
Sedgwick	U-54/183RD	1030	5/14/14	Wednesday	2
Sedgwick	U-54/199TH	0910	5/22/14	Thursday	7
Sedgwick	U-54/199TH	1155	5/22/14	Thursday	3
Sedgwick	U-54/199TH	1330	5/22/14	Thursday	3
Sedgwick	U-54/407TH W.	0830	5/1/14	Thursday	2
Sedgwick	U-54/407TH W.	1430	5/1/14	Thursday	2
Sedgwick	U-54/407TH W.	1630	4/28/14	Monday	4
Sedgwick	U-54/407TH W.	1720	4/29/14	Tuesday	5
Sedgwick	U-54/407TH W.	1550	4/30/14	Wednesday	2
Sedgwick	U-54/407TH W.	1645	5/1/14	Thursday	1
Sedgwick	U-54/E of I-135	1238	5/21/14	Wednesday	5
Butler	Hwy 77 & Hwy 400	0700	4/10/14	Thursday	3
Butler	Hwy 77 & Hwy 400	0700	4/8/14	Tuesday	3
Butler	Hwy 54 & Hwy 77	1100	4/7/14	Monday	11
Butler	Hwy 54 & Hwy 77	1100	4/11/14	Friday	13

Segment 13 Hazmat Presence											
Class	**1**	**2**	**3**	**4**	**6**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count	1	20	39		2			6	2		70



Segment 14 U-160 from Coldwater to Medicine Lodge

County	Location	Time	Date	Weekday	Placard Count
Comanche	U-160/183 junction	1051	5/16/14	Friday	3
Comanche	U-160/183 junction	0840	5/12/14	Mon	5
Barber	U-160 at Sharon	0930	6/10/14	Tuesday	4

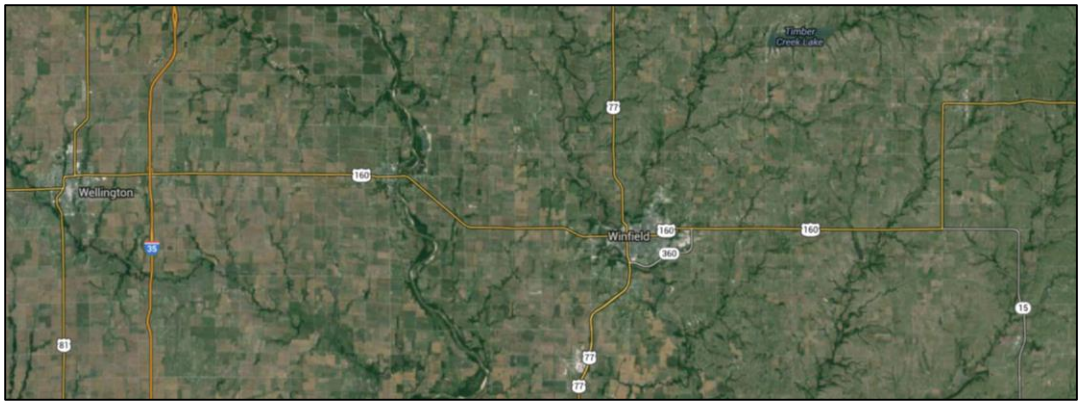
Segment 14 Hazmat Presence											
Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Placard Total**
Count			11			1					12



Segment 15 U-160 from Medicine Lodge to Wellington

County	Location	Time	Date	Weekday	Placard Count
Barber	U-160 at Sharon	0930	6/10/14	Tuesday	4
Harper	U-160 & NW 60 Rd	1100	5/18/14	Sunday	3
Harper	US 160, K-14, & K-2 junction	1000	5/15/14	Thursday	1
Sumner	Hwy. 160 & Hwy. 49	1045	3/20/14	Thursday	1
Sumner	Hwy. 160 & Oliver Road	1100	3/19/14	Wednesday	4

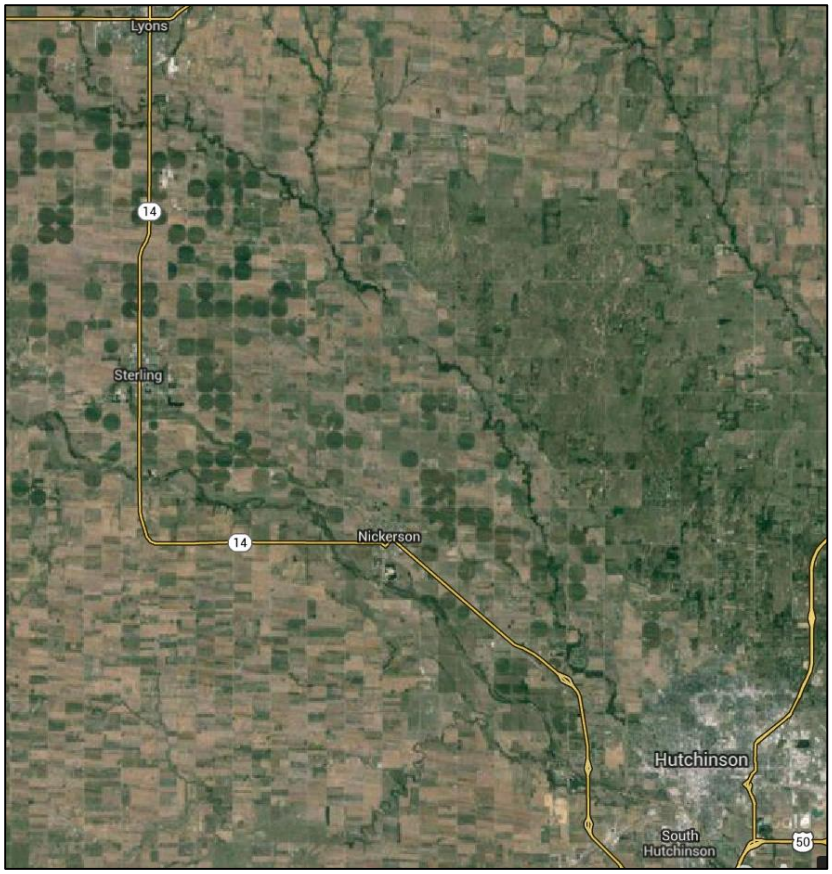
Segment 15 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		8	5							13



Segment 16 U-160 from Wellington to K-15

County	Location	Time	Date	Weekday	Placard Count
Sumner	Hwy. 160 & Hwy. 49	1045	3/20/14	Thursday	1
Sumner	Hwy. 160 & Oliver Road	1100	3/19/14	Wednesday	4
Cowley	U-160/K-15 Intersection	1400	4/7/14	Monday	2
Cowley	U-160/K-15 Intersection	1000	4/12/14	Saturday	0
Cowley	U-160/21st Road	1400	4/7/14	Monday	1
Cowley	U-160/21st Road	1000	4/30/14	Wednesday	2

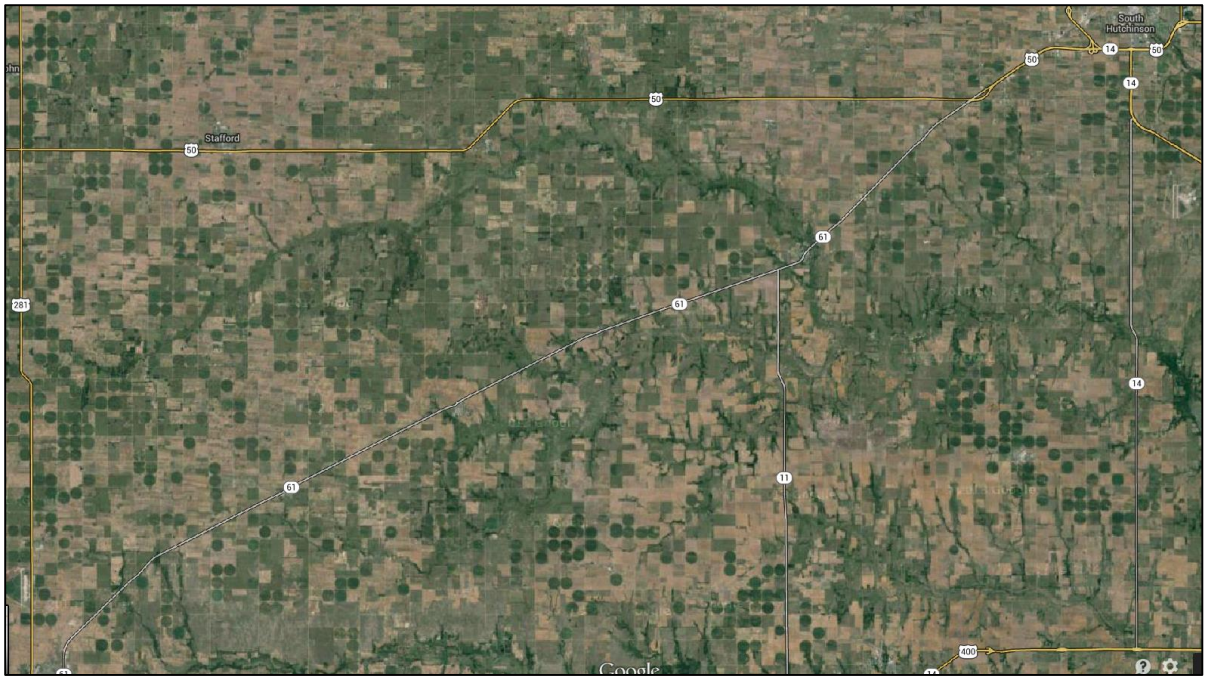
Segment 16 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		5	3				1			9



Segment 17 K-96/14 from Lyons to Hutchinson

County	Location	Time	Date	Weekday	Placard Count
Reno	K-96 & Worthington Rd	0845	5/29/14	Thursday	7
Rice	K-14 & Ave U	1100	5/16/14	Friday	5

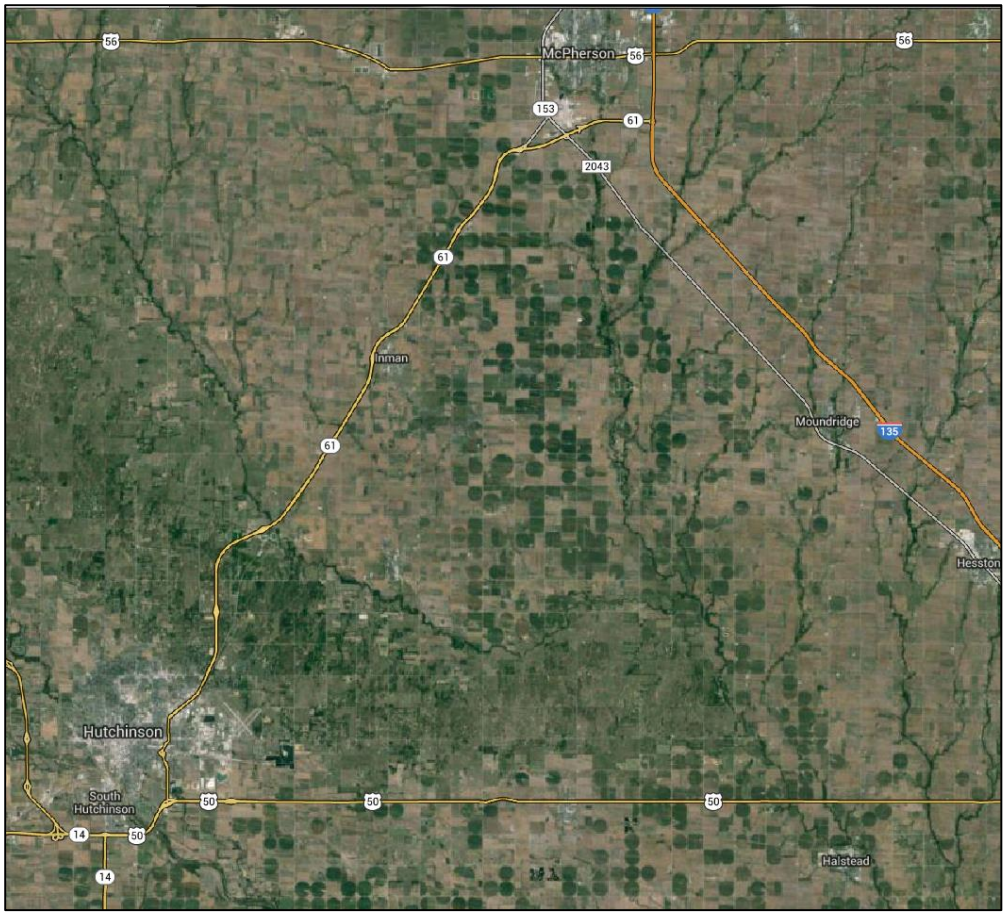
Segment 17 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		6	4				2			12



Segment 18 K-61 from Pratt to Hutchinson

County	Location	Time	Date	Weekday	Placard Count
Pratt	K-61 Hwy & NE 20th Ave	1345	5/28/14	Wednesday	2
Pratt	K-61 Hwy & NE 30th St	1415	5/15/14	Thursday	0
Reno	K-61 and Brownlee	1100	5/19/14	Monday	2
Reno	K-61 & Eastland/Harold	1000	5/29/14	Thursday	6

Segment 18 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		9	1							10



Segment 19 K-61 from Hutchinson to McPherson

County	Location	Time	Date	Weekday	Placard Count
Reno	K-61 and Brownlee	1100	5/19/14	Monday	2
Reno	K-61 & Eastland/Harold	1000	5/29/14	Thursday	6
McPherson	I-135 & K-61 junction	0930	4/9/14	Wednesday	15
McPherson	I-135 & K-61 junction	1330	4/8/14	Tuesday	18

Segment 19 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		21	15				5			41



Segment 20 K-42 from Sawyer to Wichita

County	Location	Time	Date	Weekday	Placard Count
Kingman	Intersections of Hwy 14 & Hwy K-42	0600	6/11/14	Wednesday	3
Kingman	Intersections of Hwy 14 & Hwy K-42	0700	6/11/14	Wednesday	4
Kingman	Main Street (Hwy 14) & U-54/400	1230	6/11/14	Wednesday	4
Kingman	Main Street (Hwy 14) & U-54/400	1330	6/11/14	Wednesday	6
Sedgwick	K-42/ & 11900 W	0730	4/28/14	Monday	2
Sedgwick	K-42/ & 11900 W	0725	4/29/14	Tuesday	4
Sedgwick	K-42/ & 11900 W	0740	5/1/14	Thursday	2
Sedgwick	K-42/ & 11900 W	0710	5/2/14	Friday	1
Sedgwick	K-42/ & 11900 W	1255	5/2/14	Friday	1
Sedgwick	K-42/135TH West	1630	5/2/14	Friday	1
Sedgwick	K-42/263rd West	0855	5/2/14	Friday	2
Sedgwick	K-42/263rd West	1355	5/2/14	Friday	1
Sedgwick	K-42/263rd West	1530	5/2/14	Friday	1
Sedgwick	K-42/K-49 JCT.	1040	5/22/14	Thursday	1
Sedgwick	K-42/K-49 JCT.	1440	5/22/14	Thursday	4

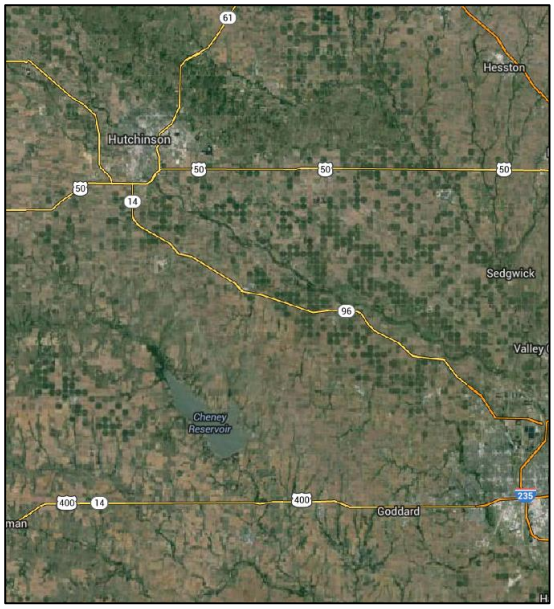
Segment 20 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		14	19				3	1		37



Segment 21 K-179/14 from Kansas border to Kingman

County	Location	Time	Date	Weekday	Placard Count
Harper	K-2, K-44, & K-179	1300	5/15/14	Thursday	5
Harper	US 160, K-14, & K-2 junction	1000	5/15/14	Thursday	1
Kingman	Intersections of Hwy 14 & Hwy K-42	0600	6/11/14	Wednesday	3
Kingman	Intersections of Hwy 14 & Hwy K-42	0700	6/11/14	Wednesday	4
Kingman	Main Street (Hwy 14) & U-54/400	1230	6/11/14	Wednesday	4
Kingman	Main Street (Hwy 14) & U-54/400	1330	6/11/14	Wednesday	6
Harper	K-179 & SW 106 Rd	0800	5/18/14	Sunday	4

Segment 21 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		7	16				3	1		27



Segment 22 K-96 from Hutchinson to Wichita

County	Location	Time	Date	Weekday	Placard Count
Reno	K-96 & Worthington Rd	0845	5/29/14	Thursday	7
Reno	Intersection of U-50/96	1000	5/18/14	Sunday	1
Sedgwick	K-96/151ST W	0925	4/29/14	Tuesday	15
Sedgwick	K-96/295TH W.	1345	5/7/14	Wednesday	6
Sedgwick	K-96/295TH W.	1700	4/29/14	Tuesday	6
Sedgwick	K-96/295TH W.	0810	4/29/14	Tuesday	14
Sedgwick	K-96/311TH St. W	1300	4/28/14	Monday	4
Sedgwick	K-96/311TH St. W	0835	4/29/14	Tuesday	7
Sedgwick	K-96/311TH St. W	1230	4/29/14	Tuesday	5
Sedgwick	K-96/311TH St. W	1305	4/30/14	Wednesday	1
Sedgwick	K-96/311TH St. W	0800	4/30/14	Wednesday	7
Sedgwick	K-96/311TH St. W	0905	5/1/14	Thursday	2
Sedgwick	K-96/311TH St. W	1225	5/1/14	Thursday	5
Sedgwick	K-96/311TH St. W	1205	5/2/14	Friday	5
Sedgwick	K-96/311TH St. W	0820	5/2/14	Friday	4
Sedgwick	K-96/311TH St. W	2000	4/28/14	Monday	3
Sedgwick	K-96/311TH St. W	1545	4/29/14	Tuesday	5
Sedgwick	K-96/311TH St. W	1730	4/30/14	Wednesday	5
Sedgwick	K-96/311TH St. W	1518	5/1/14	Thursday	7
Sedgwick	K-96/MP-300. 2 & 127th	0820	5/15/14	Thursday	5
Sedgwick	K-96/MP-300. 2 & 127th	0950	5/19/14	Monday	4
Sedgwick	K-96/MP-300. 2 & 127th	1300	5/20/14	Tuesday	4

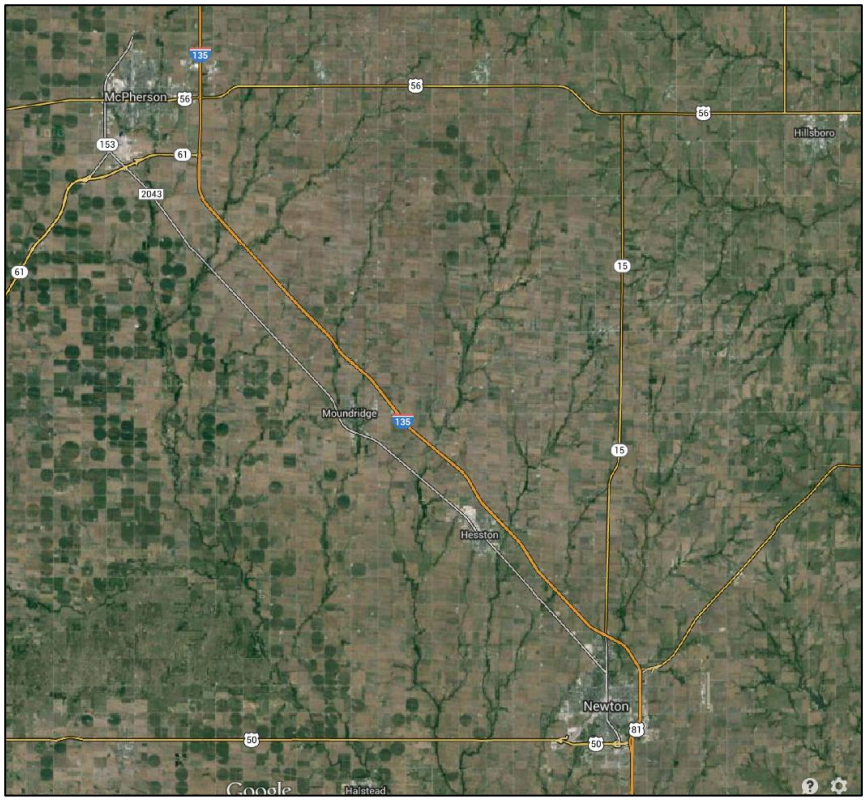
Segment 22 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		96	19				2	5		122



Segment 23 I-135 from Saline County Line to McPherson

County	Location	Time	Date	Weekday	Placard Count
McPherson	Business 81 & Smokey Valley Rd	0900	4/7/2014	Monday	5
McPherson	I-135 & K-61 junction	0930	4/9/14	Wednesday	15
McPherson	I-135 & K-61 junction	1330	4/8/14	Tuesday	9

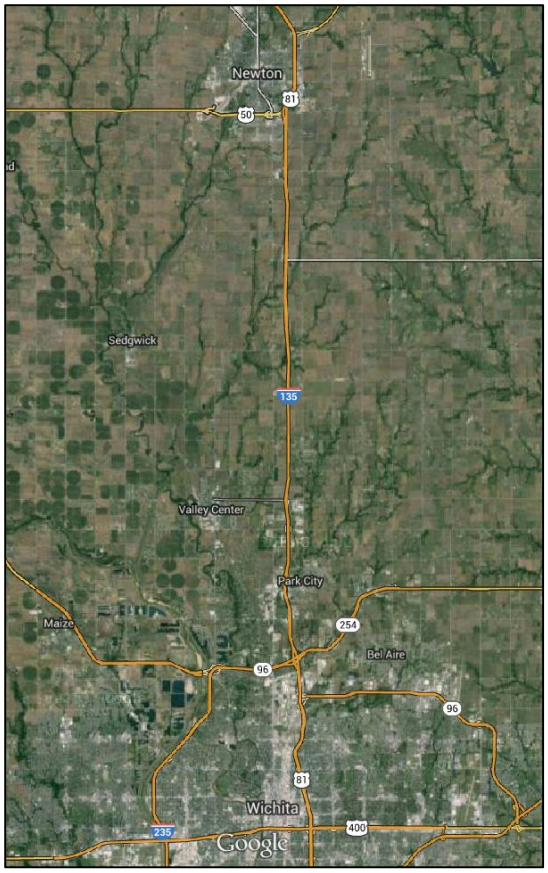
Segment 23 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		14	13				2			29



Segment 24 I-135 from McPherson to Newton

County	Location	Time	Date	Weekday	Placard Count
McPherson	Business 81 & Smokey Valley Rd	0900	4/7/14	Monday	5
McPherson	I-135 & K-61 junction	0930	4/9/14	Wednesday	15
McPherson	I-135 & K-61 junction	1330	4/8/14	Tuesday	9
Harvey	I-135 and U-50 junction	1240	6/10/14	Tuesday	7
Harvey	I-135 Hesston Exit 40	0700	6/10/14	Tuesday	6
Harvey	K-196 & I-135 Exit 25	1500	6/9/14	Monday	5

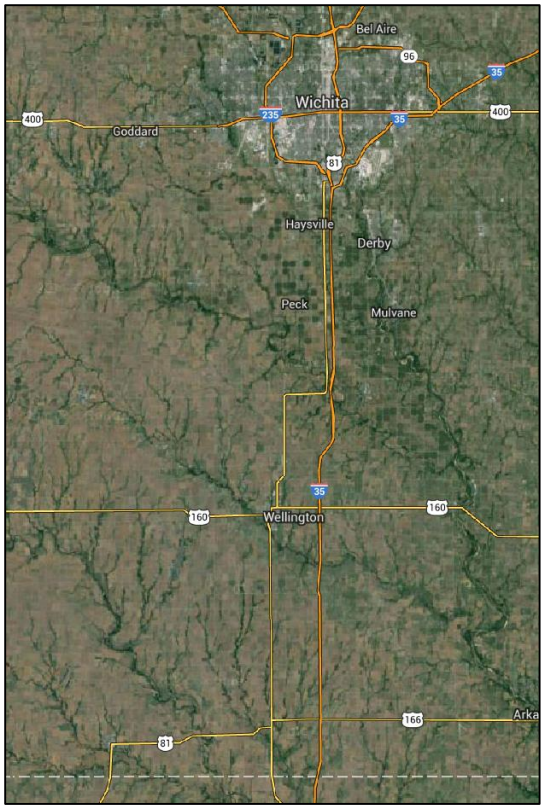
Segment 24 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		22	14				6	5		47



Segment 25 I-135/81 from Newton to Wichita

County	Location	Time	Date	Weekday	Placard Count
Sedgwick	I-135/109TH N.	1345	4/30/14	Wednesday	6
Sedgwick	I-135/125th N.	1618	4/29/14	Tuesday	11
Sedgwick	I135/125TH N.	1000	5/1/14	Thursday	6
Sedgwick	I-135/AT 10500 St. N.	1000	5/2/14	Friday	6
Sedgwick	I-135/AT 10500 St. N.	0830	5/2/14	Friday	7
Sedgwick	I-135/AT 10500 St. N.	0840	5/1/14	Thursday	4
Sedgwick	I-135/AT 10500 St. N.	1030	4/29/14	Tuesday	6
Sedgwick	I-135/At Wassell & Spruce	1400	5/21/14	Wednesday	14
Sedgwick	I-135/At Wassell & Spruce	1425	5/2/14	Friday	6
Sedgwick	I-135/At Wassell & Spruce	1530	5/2/14	Friday	5
Sedgwick	I-135/At Wassell & Spruce	0915	5/3/14	Saturday	7
Sedgwick	I-135/At Wassell & Spruce	1050	5/4/14	Sunday	8
Harvey	I-135 and U-50 junction	1240	6/10/14	Tuesday	7
Harvey	I-135 Hesston Exit 40	0700	6/10/14	Tuesday	6
Harvey	K-196 & I-135 Exit 25	1500	6/9/14	Monday	5

Segment 25 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		41	45		1		7	9	1	104



Segment 26 I-35 from Wichita to Oklahoma border

County	Location	Time	Date	Weekday	Placard Count
Sedgwick	KTA/ I-35 EXIT 45	0920	5/16/14	Friday	7
Sedgwick	KTA/ I-35 EXIT 45	1320	5/19/14	Monday	4
Sedgwick	KTA/ I-35 EXIT 45	1408	5/20/14	Tuesday	5
Sedgwick	KTA/South Wichita Terminal	0812	5/16/14	Friday	18
Sedgwick	KTA/South Wichita Terminal	1046	5/15/14	Thursday	17
Sedgwick	KTA/South Wichita Terminal	1215	5/19/14	Monday	15
Sumner	I-35 and 60th St S	1118	4/18/14	Friday	10

Segment 26 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		49	18				4	5		76



Segment 27 U-166 from intersection of I-35 and U-166 East to the Cowley County line

County	Location	Time	Date	Weekday	Placard Count
Sumner	Hwy. 81 & Hwy. 166	1115	3/21/14	Friday	9
Cowley	U-166/US 77 Intersection	1245	4/1/14	Tuesday	3
Cowley	U-166/US 77 Intersection	0800	4/22/14	Tuesday	2
Cowley	U-166/K-15 Junction	1330	4/2/14	Wednesday	2
Cowley	U-166/K-15 Junction	0745	4/4/14	Friday	1

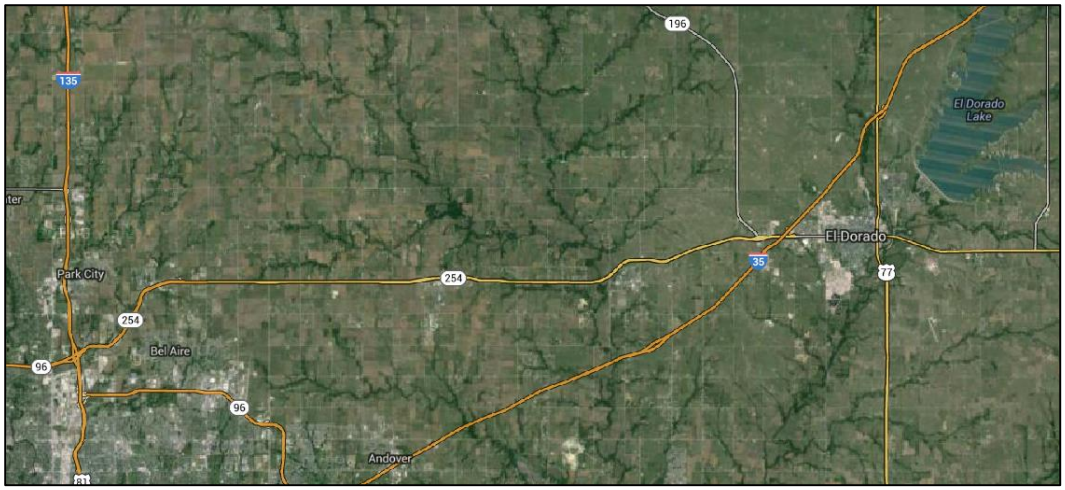
Segment 27 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		14	1	1			1			17



Segment 28 U-77 from State line to Augusta

County	Location	Time	Date	Weekday	Placard Count
Cowley	K-15/U-77 Intersection	1810	4/15/14	Tuesday	2
Cowley	K-15/U-77 Intersection	1500	4/24/14	Thursday	3
Butler	Hwy 77 & Hwy 400	0700	4/10/14	Thursday	3
Butler	Hwy 77 & Hwy 400	0700	4/8/14	Tuesday	3
Butler	Hwy 54 & Hwy 77	1100	4/7/14	Monday	11
Butler	Hwy 54 & Hwy 77	1100	4/11/14	Friday	13

Segment 28 Hazmat Presence											
Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Placard Total**
Count		24	9			1		1			35



Segment 29 K-254 from Wichita to El Dorado

County	Location	Time	Date	Weekday	Placard Count
Butler	Hwy 254 & Haverhill	0700	4/9/14	Wednesday	15
Butler	Hwy 254 & Haverhill	0700	4/11/14	Friday	4
Sedgwick	K-254/15500	0945	4/28/14	Monday	4
Sedgwick	K-254/15500	1230	4/28/14	Monday	5
Sedgwick	K-254/15500	0710	4/29/14	Tuesday	8
Sedgwick	K-254/15500	1030	4/29/14	Tuesday	5
Sedgwick	K-254/15500	1200	4/29/14	Tuesday	7
Sedgwick	K-254/15500	1200	4/30/14	Wednesday	9
Sedgwick	K-254/15500	0945	4/30/14	Wednesday	5
Sedgwick	K-254/15500	0730	5/1/14	Thursday	9
Sedgwick	K-254/15500	1330	5/1/14	Thursday	4

Segment 29 Hazmat Presence										
Class	**1**	**2**	**3**	**4**	**5**	**7**	**8**	**9**	**10**	**Placard Total**
Count		34	36		1		3	1		75



Segment 30 U-77 from Marion County line to Pickrell Comer

County	Location	Time	Date	Weekday	Placard Count
Marion	U-56 & U-77	1300	5/16/14	Friday	3
Marion	U-56 & U-77	1500	5/16/14	Friday	1
Marion	U-56 & U-77	1500	4/11/14	Friday	1
Marion	U-56 & U-77	1500	4/11/14	Friday	1
Marion	U-56 & U-77	1400	4/11/14	Friday	2
Marion	U-77 & 290th Rd	1600	4/22/14	Tuesday	3
Marion	U-77 & 290th Rd	1600	5/15/14	Thursday	1
Butler	Hwy 77 & Hwy 400	0700	4/10/14	Thursday	3
Butler	Hwy 77 & Hwy 400	0700	4/8/14	Tuesday	3
Butler	Hwy 54 & Hwy 77	1100	4/7/14	Monday	11
Butler	Hwy 54 & Hwy 77	1500	4/11/14	Friday	13

Segment 2 Hazmat Presence											
Class	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Placard Total**
Count		26	15					1			42

Regional Road Segment Totals

	Road		Count Points	Number of Counts	Peak Hours	Peak Weekday	Total Placards	Class Types	Most Common Class
Segment 1	Highway 56	Kinsley to Great Bend	5	8	0945-1125	Tuesday	18	2,3,7,8,9	2
Segment 2	Highway 56	Great Bend to McPherson	5	8	0830-1030	Wednesday	17	2,3,8	2
Segment 3	Highway 56	McPherson to Marion	2	5	1200-1500	Friday	11	2,3,8	3
Segment 4	Highway 183	Comanche County line to Kinsley	3	3	0930-1115	Tuesday	29	2,3	2
Segment 5	US-50	Kinsley to US-50/US-281 Junction	5	6	1230-1330	Wednesday	45	2,3,7	3
Segment 6	US-50	US-50/US-281 Junction to US-50/Hwy 61 Junction	3	3	0900-1000	Monday	16	2,3,8,9	3
Segment 7	US-50	Hutchinson to Newton	3	3	0900-1030	Monday	15	2,3,8,9	2
Segment 8	US-50	Newton to Florence	3	4	0900-1000	Tuesday	9	2,3,8	2
Segment 9	U-281	Great Bend to the Oklahoma Border	4	4	0930-1100	Wednesday	38	2,3,5,8,9,10	2
Segment 10	U-281	Great bend to K-4	1	1	0830-0930	Tuesday	10	3,4,9	3
Segment 11	US-54/400	Greensburg to Pratt	6	6	0930-1100	Wednesday	43	2,3,5,8,9,10	2
Segment 12	US-54/400	Pratt to Wichita	8	18	0930-1100	Wednesday	89	2,3,5,6,8,9,10	3
Segment 13	US-54/400	Wichita to Beaumont	6	17	0900-1200	Friday	70	1,2,3,6,8,9	3
Segment 14	US-160	Coldwater to Medicine Lodge	2	3	0830-1100	Monday	12	3,6	3
Segment 15	US-160	Medicine Lodge to Wellington	4	5	0930-1200	Wednesday	13	2,3	2
Segment 16	U-160	Wellington to K-15	4	6	1045-1200	Wednesday	9	2,3,8	2
Segment 17	K-96/14	Lyons to Hutchinson	2	2	0845-1100	Friday	12	2,3,8	2

Segment 18	K-61	Pratt to Hutchinson	4	4	1000-1200	Tuesday	10	2,3	2
Segment 19	K-61	Hutchinson to McPherson	3	4	0930-1430	Tuesday	41	2,3,8	2
Segment 20	K-42	Sawyer to Wichita	5	15	1230-1530	Wednesday	37	2,3,8,9	3
Segment 21	K-179/14	Kingman to Oklahoma border	5	7	1230-1430	Wednesday	27	2,3,8,9	3
Segment 22	K-96	Hutchinson to Wichita	6	22	0800-1030	Tuesday	122	2,3,8,9	2
Segment 23	I-135	McPherson to Saline County Line	3	3	0900-1030	Monday	29	2,3,8	2
Segment 24	I-135	McPherson to Newton	5	6	0700-1030	Tuesday	47	2,3,8,9	2
Segment 25	I-135/81	Newton to Wichita	4	9	1400-1700	Tuesday	104	2,3,5,8,9,10	3
Segment 26	I-35	Wichita to Oklahoma Border	3	7	0800-1315	Friday	76	2,3,8,9	2
Segment 27	U-166	Intersection of I-35/U-166 to Cowley County Line	3	5	1115-1345	Friday	17	2,3,4,8	2
Segment 28	U-77	Augusta to Oklahoma Border	3	6	1100-1200	Friday	35	2,3,6,8	2
Segment 29	K-254	Wichita to El Dorado	2	11	0700-0830	Wednesday	75	2,3,5,8,9	3
Segment 30	U-77	Pickrell Comer to Marion County Line	4	11	1300-1600	Friday	42	2,3,8	2

Major Thoroughfares in the Region

Highway	Count Points	Counts Conducted	Peak Period	Peak Weekday	Total Placard Count	Placards per Count Hour	Recorded Classes	Prominent Class
I-35	3	7	0800-1315	Friday	76	10.86	2,3,8,9	2
K-61	5	5	0930-1430	Tuesday	51	10.2	2,3,8	2
I-135	12	22	0700-1700	Tuesday	180	8.18	2,3,5,8,9,10	2
U-281	6	7	0830-1100	Wednesday	48	6.82	2,3,4,5,8,9,10	2
K-254	2	11	0700-0830	Wednesday	75	6.82	2,3,5,8,9	3
US-54/400	17	40	0930-1100	Wednesday	202	5.05	2,3,5,6,8,9,10	3
K-96	7	25	0800-1030	Tuesday	122	4.88	2,3,8,9	2
K-179	2	2	1230-1430	Wednesday	9	4.5	2,3,8,9	3
K-96/14	3	3	0845-1100	Friday	12	4.00	2,3,8	2
US-50	14	22	1230-1330	Wednesday	85	3.86	2,3,7,8,9	3
U-166	3	5	1115-1345	Friday	17	3.40	2,3,4,8	2
U-77	7	23	1100-1600	Friday	77	3.34	2,3,6,8	2
US-160	8	11	0930-1200	Wednesday	22	2.00	2,3,8	2
K-42	6	21	1230-1530	Wednesday	37	1.76	2,3,8,9	3
U-183	8	18	0930-1115	Tuesday	29	1.61	2,3	2
U- 56	14	57	0830-1125	Tuesday	69	1.21	2,3,7,8,9	2

Vehicle Configuration Count by County

Truck Type: Standard Tank Liquid & Gas	Configuration			
County	Straight	Tractor Trailer	Multi-trailer	Total
Barber	8	5	0	13
Barton	0	15	0	15
Butler	11	64	4	79
Comanche	16	0	0	16
Cowley	4	10	0	14
Edwards	6	38	0	44
Harper	13	0	0	13
Harvey	0	17	0	17
Kingman	12	27	1	40
Kiowa	4	12	0	16
Marion	3	16	0	19
McPherson	6	75	0	81
Pawnee	0	5	0	5
Pratt	0	16	0	16
Reno	4	35	0	39
Rice	0	13	0	13
Sedgwick	24	287	14	325
Stafford	0	14	0	14
Sumner	13	12	0	25
	124	661	19	804
	13%	69%	2%	

Truck Type Vacuum Tank	Configuration		
County	Straight	Tractor Trailer	Total
Barber	0	0	0
Barton	0	0	0
Butler	4	0	4
Comanche	0	0	0
Cowley	0	0	0
Edwards	0	0	0
Harper	0	0	0
Harvey	0	0	0
Kingman	0	0	0
Kiowa	0	2	2
Marion	2	0	2
McPherson	0	1	1
Pawnee	0	0	0
Pratt	0	0	0
Reno	0	0	0
Rice	0	0	0
Sedgwick	2	26	28
Stafford	0	0	0
Sumner	0	0	0
	8	29	37
	1%	3%	

Truck Type Dry-Bulk Tank	Configuration		
County	Straight	Tractor Trailer	Total
Barber	0	0	0
Barton	0	0	0
Butler	0	0	0
Comanche	0	0	0
Cowley	0	0	0
Edwards	0	0	0
Harper	0	0	0
Harvey	0	0	0
Kingman	0	0	0
Kiowa	0	0	0
Marion	0	0	0
McPherson	0	0	0
Pawnee	0	0	0
Pratt	0	1	1
Reno	0	0	0
Rice	0	0	0
Sedgwick	0	1	1
Stafford	0	0	0
Sumner	0	0	0
	0	2	2
	0%	0%	

Truck Type Standard Van	Configuration			
County	Straight	Tractor Trailer	Multi-trailer	Total
Barber	0	0	0	0
Barton	0	0	0	0
Butler	0	0	0	0
Comanche	1	0	0	1
Cowley	2	0	1	3
Edwards	4	3	0	7
Harper	0	0	0	0
Harvey	0	3	0	3
Kingman	0	0	0	0
Kiowa	0	1	0	1
Marion	0	2	0	2
McPherson	0	0	0	0
Pawnee	0	0	0	0
Pratt	1	3	2	6
Reno	1	1	3	5
Rice	1	3	0	4
Sedgwick	0	25	7	32
Stafford	0	0	0	0
Sumner	0	0	0	0
	10	41	13	64
	1%	4%	1%	

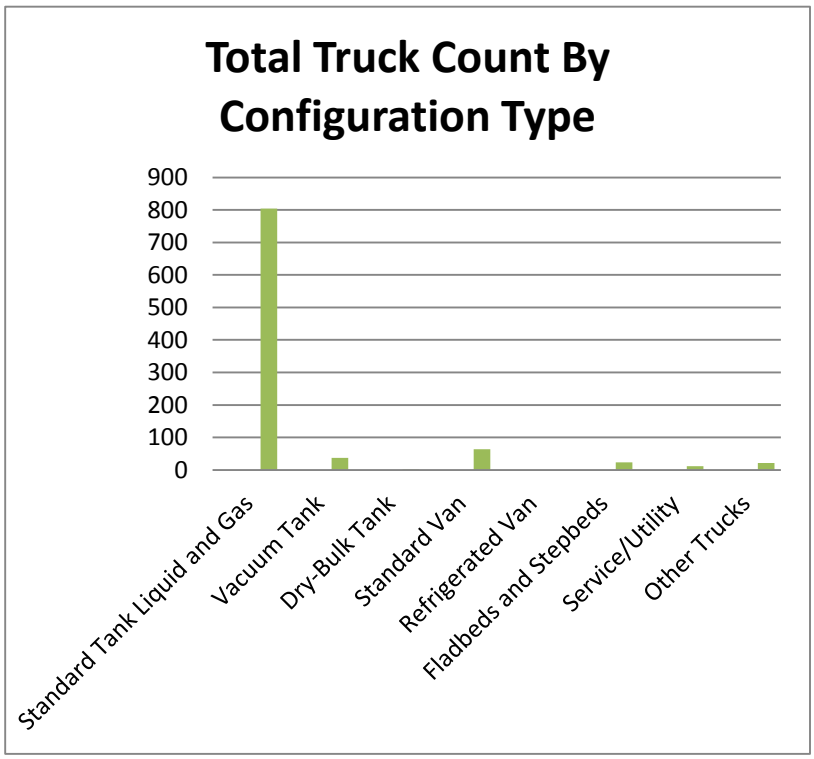
Truck Type Refrigerated Van	Configuration			
County	Straight	Tractor Trailer	Multi-trailer	Total
Barber	0	0	0	0
Barton	0	0	0	0
Butler	0	0	0	0
Comanche	0	0	0	0
Cowley	0	0	0	0
Edwards	0	0	0	0
Harper	0	0	0	0
Harvey	0	0	0	0
Kingman	0	0	0	0
Kiowa	0	0	0	0
Marion	0	0	0	0
McPherson	0	0	0	0
Pawnee	0	0	0	0
Pratt	0	0	0	0
Reno	0	0	0	0
Rice	0	0	0	0
Sedgwick	0	0	0	0
Stafford	0	0	0	0
Sumner	0	0	0	0
	0	0	0	0
	0%	0%	0%	

Truck Type Fladbeds & Stepbeds	Configuration			
County	Straight	Tractor Trailer	Multi-trailer	Total
Barber	0	0	0	0
Barton	2	0	0	2
Butler	0	0	0	0
Comanche	0	0	0	0
Cowley	0	0	0	0
Edwards	3	0	0	3
Harper	0	0	0	0
Harvey	0	0	0	0
Kingman	0	0	0	0
Kiowa	0	0	0	0
Marion	0	0	0	0
McPherson	2	0	0	2
Pawnee	0	0	0	0
Pratt	3	0	0	3
Reno	3	3	0	6
Rice	0	0	0	0
Sedgwick	3	3	1	7
Stafford	0	0	0	0
Sumner	0	0	0	0
	16	6	1	23
	2%	1%	0%	

Truck Type Service/Utility	Configuration		
County	Straight	Tractor Trailer	Total
Barber	0	0	0
Barton	0	0	0
Butler	0	0	0
Comanche	0	0	0
Cowley	1	0	1
Edwards	2	0	2
Harper	0	0	0
Harvey	4	0	4
Kingman	0	0	0
Kiowa	1	0	1
Marion	0	0	0
McPherson	1	0	1
Pawnee	0	0	0
Pratt	1	0	1
Reno	0	0	0
Rice	0	0	0
Sedgwick	2	0	2
Stafford	0	0	0
Sumner	0	0	0
	12	0	12
	1%	0%	

Truck Type Other Trucks	Configuration		
County	Straight	Tractor Trailer	Total
Barber	0	0	0
Barton	3	0	3
Butler	0	1	1
Comanche	4	0	4
Cowley	0	0	0
Edwards	0	0	0
Harper	0	0	0
Harvey	0	0	0
Kingman	0	0	0
Kiowa	0	0	0
Marion	0	0	0
McPherson	0	0	0
Pawnee	0	0	0
Pratt	2	0	2
Reno	5	0	5
Rice	0	0	0
Sedgwick	5	1	6
Stafford	0	0	0
Sumner	0	0	0
	19	2	21
	2%	0%	

	Regional Total
County	Total vehicle count
Barber	13
Barton	20
Butler	84
Comanche	21
Cowley	18
Edwards	56
Harper	13
Harvey	24
Kingman	40
Kiowa	20
Marion	23
McPherson	85
Pawnee	5
Pratt	29
Reno	55
Rice	17
Sedgwick	401
Stafford	14
Sumner	25
	963



Top 30 Road Transported Hazardous Materials

An analysis based on the placard counts for each of the counties identified the below 30 commodities as the most frequently transported hazardous materials.

Gasoline	Petroleum Crude Oil	Alcohols NOS	Petroleum Gases	Combustible Liquids
Ammonia, Anhydrous	Elevated Temperature Liquid NOS	Carbon Dioxide	Elevated Temperature Liquid Flammable NOS	Petroleum Distillates NOS
Hexaldehyde	Xylenes	Nitrogen Refrigerated Liquids	Hydrochloric Acid	Sodium Hydroxide Solution
Pentanes	Dinitrogen Tetroxide	Oxygen Refrigerated Liquid	Argon Refrigerated Liquid	Helium Refrigerated Liquid
Flammable Liquids Toxic NOS	Heptanes	Compound Cleaning Liquids	Accumulators Pressurized Pneumatic or Hydraulic	Ammonia Solutions
Flammable Liquids Corrosive NOS	Organophosphorus Pesticides Liquid Toxic Flammable	Hazardous Waste Liquids NOS	Hydrocarbons Liquids NOS	Air Compressed

Phase V: Data Analysis and Documentation

This phase of the project involved verification and documentation of the data sources, and validation with local officials. EMFusion staff attended LEPC meetings in each of the nineteen (19) counties, and meetings of the SC KEMA Region and the SC RHSC to, and provided a report on the progress of the project. EMFusion staff interviewed response officials at LEPC meetings to identify areas of concern.

In addition, EMFusion staff maintained contact with each participating county and appropriate response agencies to collect data, provide support, and validate information.

This phase also included the dissemination of various online survey tools to local emergency response officials.

Figure 7: Analysis and Documentation

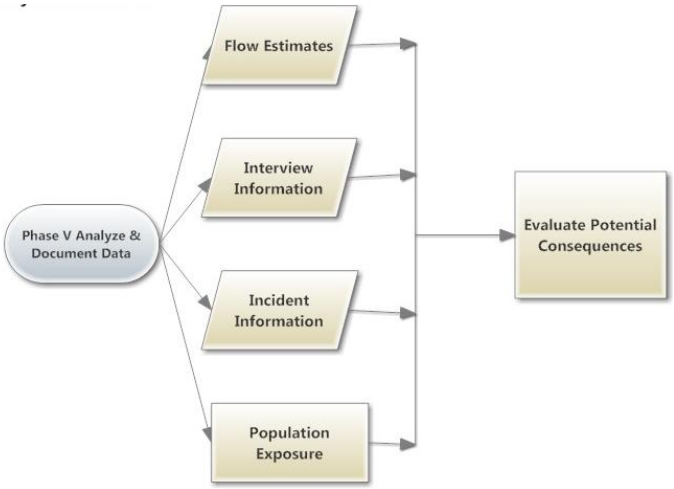
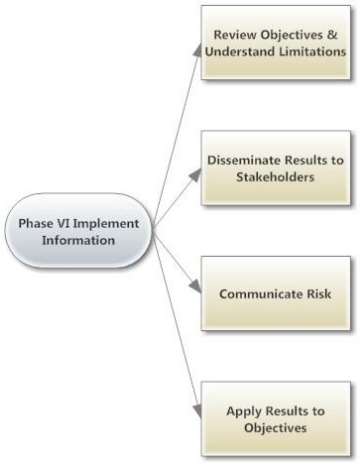


Figure 8: Report Development and Validation

Phase VI: Report Development and Validation

This phase included the assembling of data from various federal, state and local sources. The purpose was to identify the scope of the data collected, and compare against reported information. This process also included the development of reports based on information from the private sector which defined the HazMat transported through the region.



As to CI, the process was adapted to include the mapping efforts conducted by the Adjutant General's Department. This means that not all CI categories identified by counties are plotted in the maps included in the report.

Local Participation, Grant Requirements

The conditions of the grant stipulated the participation of all nineteen counties in the planning area. The project scope was approved and funding allocation made based on that premise. If a single county failed to participate, the entire scope of the project was to be re-drafted and the funds reduced accordingly.

The participation of LEPCs in this project was required. To fulfill this requirement, EMFusion tailored the process to include a formal designation of a County Project Coordinator by the LEPC. Guidelines for selecting the County Project Leader were drafted and distributed by EMFusion to all LEPCs, with the recommendation to designate a representative from response organizations other than Emergency Management Officials. The time of County Project Leaders dedicated to project meetings, document review, reporting to the LEPC about the project, etc. was documented for local share and federal verification.

All participating LEPCs designate a single **regional** contact for data collection from state agencies – to reduce time and ensure uniformity. This was done by each LEPC through a formal document, which were submitted by the Regional Project Coordinator to KDEM.

Brian Stone (the Regional Project Coordinator) submitted a formal MOU to KDEM, to document this designation. As Regional Project Coordinator, Mr. Stone was actively involved with discussions about the entire scope of the project, along with KDEM staff that provided feedback as the final report was developed.

Utilization of the Regional Report

1. Participating LEPCs can use the individual county reports to enhance their HazMat awareness, preparedness and response strategies. County reports include data on worse possible scenarios (WPS), training, equipment, planning gaps and more.

2. As a region, participating LEPCs can use the report to address areas of common interest, in particular intergovernmental collaboration with state agencies, and the Kansas Commission on Planning and Response (CEPR).

3. The Regional Councils, specifically the Regional Homeland Security Council, can utilize the report in regional capacity building efforts, and prioritization of federal homeland security funds for all hazards.

4. The report offers the SC KEMA Region decision making information to help identify future priorities for regional HazMat planning grants to continue to address common preparedness issues, and promote regional collaboration.

Regulations and Laws Specific to HazMat

The project included research of existing regulations and laws that govern HazMat planning, response, licensing, reporting and more. A compendium of those is included as **Attachment 1 of this Regional Report.**

The State of Kansas integrated the EPCRA planning requirements into the planning requirements of the County (also known as Local) Emergency Operations Plans (CEOPs or LEOPs) to streamline the planning process, requiring the developing of one comprehensive plan, instead of two. The CEOPs or LEOPs are required to include a chapter called Emergency Support Function (ESF) 10, Hazardous Materials. This Chapter must meet specific requirements contained in the EPCRA, and make reference to key information found elsewhere in the document.

Emergency Plans, Standards

KDEM has published the **Kansas Planning Standards**, a guide designed to help local officials achieve compliance with state and federal requirements. Hazardous Materials, ESF #10 Chapter of the standards is online at http://www.kansastag.gov/AdvHTML_doc_upload/ESF%2010-%20Oil%20and%20Hazardous%20Materials.pdf.

HazMat specific required elements of a community emergency response plan

- *Each emergency plan must include facilities and transportation routes related to specific chemicals.*
- *Response procedures of facilities, and local emergency and medical personnel.*
- *The names of community and facility emergency coordinators.*
- *Procedures for notifying officials and the public in the event of a release.*
- *Methods for detecting a release and identifying areas and populations at risk.*
- *A description of emergency equipment and facilities in the community and at specified fixed facilities.*
- *Evacuation and shelter-in-place plans.*
- *Training programs.*
- *Schedules for exercising the emergency plan.*

National Response Team, Hazardous Materials Planning Guide, July 2001

Compliance

County Emergency Response Plans

Status of County Plans

Table 1 CEOP status in for counties in the Planning Region[7]

county	date_approved	expire_date	notes	valid
Reno	8/26/09	8/26/14		A
Sedgwick	2/16/10	2/16/15		A
McPherson	6/8/10	6/8/15		A
Harvey	8/2/10	8/2/15		A
Kingman	8/2/10	8/2/15		A
Edwards	9/10/10	9/10/15		A
Rice	9/10/10	9/10/15		A
Barber	9/24/10	9/24/15		A
Butler	8/29/11	8/29/16		A
Barton	12/6/13	12/6/18	APA 12/5/2013	A
Pawnee	12/6/13	12/6/18	APA 12/5/2013	A
Stafford	12/10/13	12/10/18	APA 12/9/2013	A
Cowley	1/24/14	1/24/19	APA 1/23/2014	A
Comanche		1/1/00		E
Sumner	3/17/09	3/17/14		E
Pratt	7/9/08	7/9/13	5/8/2014	S
Harper	7/29/08	7/29/13	12/24/2013	U
Kiowa	6/17/08	6/17/13	2/17/2014	U
Marion	6/25/08	6/25/13	12/31/2013	U

Table Key
A= Approved
E= Expired
S= Submitted *(to KDEM for approval)*
U= Reviewed by KDEM and sent back to county for corrections.
APA= Approved pending adoption

Italics denote commentary.

Based on the data on Table 1 CEOP status in for counties in the Planning Region (above), 14 counties are in compliance with federal and state requirements, 3 counties are actively engaged in the plan update process and progressing toward compliance, and 2 counties are out of compliance.

Planning requirements, at a glance:

- Facilities and transportation routes related to specific chemicals.
- Response procedures of facilities, and local emergency and medical personnel.
- The names of community and facility emergency coordinators.
- Procedures for notifying officials and the public in the event of a release.
- Methods for detecting a release and identifying areas and populations at risk.
- A description of emergency equipment and facilities in the community and at specified fixed facilities.
- Evacuation and shelter-in-place plans.
- Training programs.
- Schedules for exercising the emergency plan.

LEPC Record Retention Schedule

- This R-CFS included a survey of record maintenance directed to LEPC leadership.
- Table 1 below provides an overview of the record management requirements of LEPCs, to assure compliance with state and federal regulations.

[7] Source: Kansas Division of Emergency Management, Planning Section, Updated: 5/29/2014.

Table 2 Record maintenance timeline[8]

RECORD	Length of Maintenance	Disposition
Local emergency management plans and pertinent annexes	Keep until superseded	May destroy after superseded.
Safety Data Sheets (SDS, previously known as Material Safety Data Sheets or MSDS) or information on where to obtain them	Keep until superseded	May destroy after superseded.
Initial and follow-up hazardous chemical spill release reports	Keep for 5 years	May destroy after 5 years.
LEPC bylaws	Keep until superseded	May destroy after superseded.
Minutes of LEPC and committee meetings	Keep until no longer useful	Recommend permanent storage (may be electronically stored)
Kansas Tier II reports for covered facilities	Keep for 2 years	May destroy after 2 years.
LEPC membership list	Keep for one year	May destroy after one year

Incident Reporting by Municipalities

For the purpose of this R-CFS, data from multiple reporting databases was evaluated. The sources were federal and state agencies with authority to issue reporting requirements. No local incident reporting databases were evaluated. The survey of Emergency Managers highlighted the wide variance in data management systems across the region, the majority of which is done manually.

The project scope required the review of non HazMat specific data on transportation accidents. The process recognizes that locations along transportation systems where accidents are recurring pose a higher risk for HazMat carriers, regardless of the modality.

- Incident reporting by municipalities includes spill reports, and accident (rail, ground and airplane) reports.
- Municipalities are limited to submission of spill reports received by local officials from industry, or from incidents where government agencies are the spiller.

Regional Profile

The Planning Area, or Planning Region, for this study is comprised of nineteen counties in South Central Kansas:

Barber	Edwards	Marion	Rice
Barton	Harper	McPherson	Sedgwick
Butler	Harvey	Pawnee	Stafford
Comanche	Kingman	Pratt	Sumner
Cowley	Kiowa	Reno	

[8] LEPC Record Retention Schedule, KDEM, online at http://www.kansastag.gov/AdvHTML_doc_upload/LEPC%20RECORD%20RETENTION%20SCHEDULE.pdf accessed July 7, 2014

The Planning Region has the same geographic boundaries for the Regional Homeland Security Council, the SC KEMA Region, and the SC Kansas Health Care Coalition.

Topography[9]

*"**Relief*** --The region discussed in this report lies west of the Flint Hills and is included in the Great Bend Prairie physiographic province of Moore (1940). It is characterized by the extreme flatness of large areas and low topographic relief in parts of the area. The belt of sand dunes trending northwest-southeast along the northeast side of the Arkansas River valley, the scarps formed by Cretaceous sandstones in the northwestern and northeastern parts of the area, and the rough area underlain by Ninnescah shale along the Ninnescah River provide the only prominent relief to an otherwise nearly featureless plain.

The lowest points in the area, about 1,280 feet above sea level, occur along the Smoky Hill and Arkansas rivers where these streams flow out of the area. The highest points occur south of Sharps Creek about 3 miles north of Windom, McPherson County, and are about 1,700 feet above sea level.

The wide, flat, poorly drained valley plain of the Arkansas River, and the wide, flat to gently rolling surface of the ancient McPherson Valley comprise most of the area here discussed. Low terraces occur along the Arkansas and Smoky Hill rivers, but are not prominent topographic forms.

Drainage --Most of the area covered by this report is drained by the Arkansas River and its tributaries. The northwestern part of the area is drained by the Smoky Hill River, a part of the Kansas River system, and the northeastern part is drained by the headwaters of Cottonwood River, a part of the Neosho River system. A few square miles southeast of Newton are drained by small tributaries of Walnut River, which joins the Arkansas River at Arkansas City. The central part of the area is drained by the Little Arkansas River which joins the Arkansas at Wichita. The southwestern part is drained by the north fork of the Ninnescah River which joins the Arkansas River near Oxford in Sumner County. The more important tributaries to the Little Arkansas River are Kisiwa, Emma, Turkey, and Black Kettle creeks; the tributaries to the Smoky Hill River are Sharps, Paint, Indian, and Gypsum creeks."

Climate and Weather

"Climate--The climate of this part of central Kansas is characterized by moderate precipitation, a wide range of temperature variations, moderately high average wind velocity, and comparatively rapid evaporation. The summer days generally are hot, especially during July and August. The winters are moderately cold but generally are free from excessive snowfall. [10]"

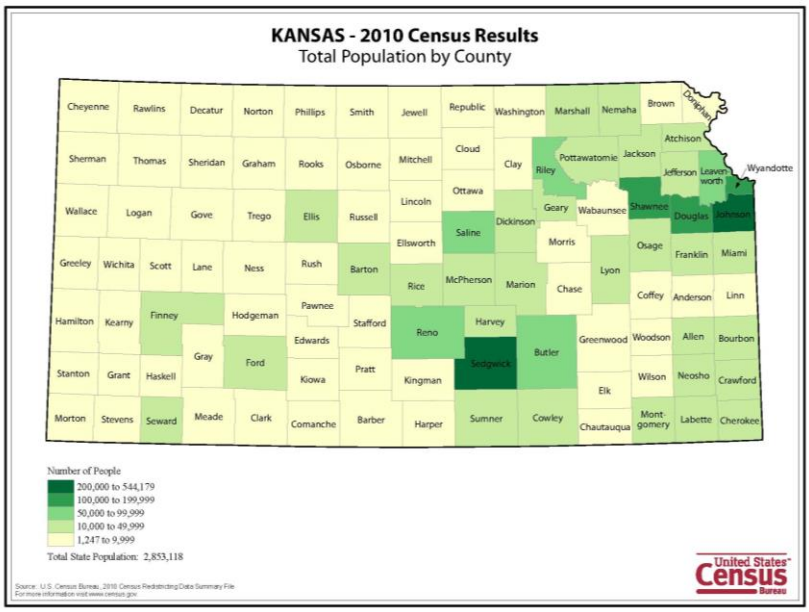
Regional Demographics

Population in the region

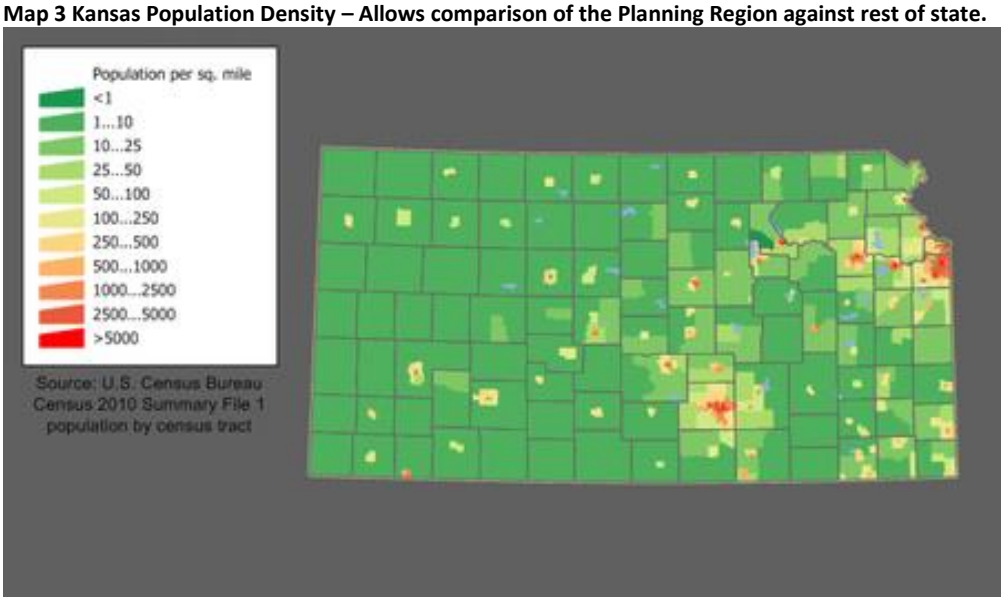
[9] Source: Kansas Geological Survey, online at http://www.kgs.ku.edu/Publications/Bulletins/79/04_geog.html accessed July 12, 2014.

[10] Source: Kansas Geological Survey, online at http://www.kgs.ku.edu/Publications/Bulletins/79/04_geog.html accessed July 12, 2014.

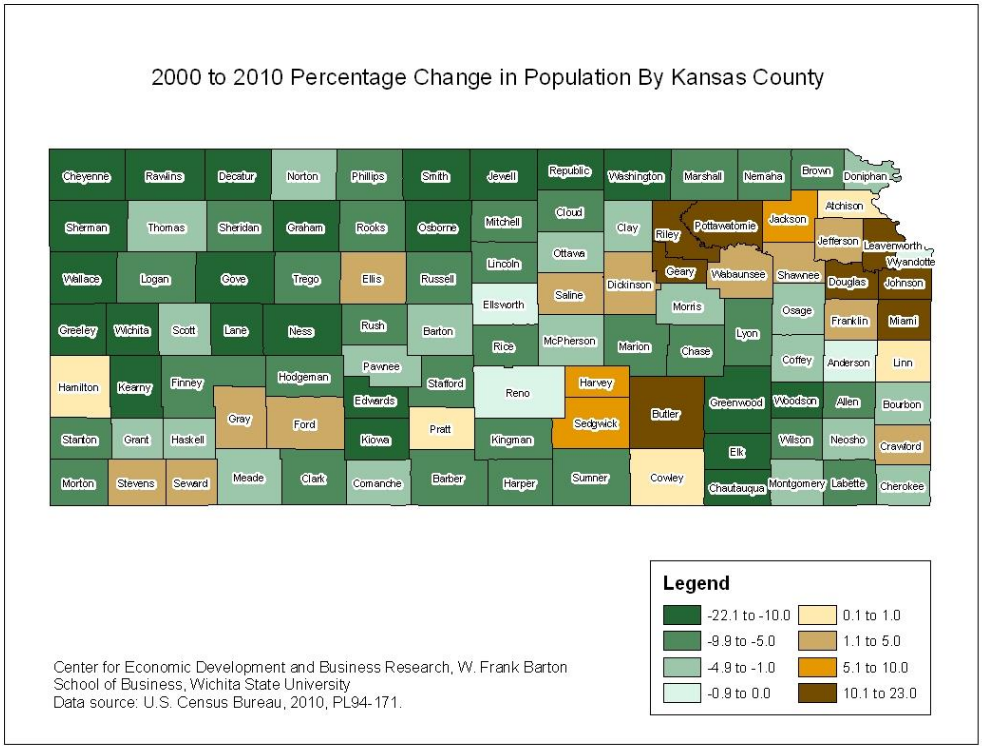
Map 2 2010 Census, Planning Region



Map 3 Kansas Population Density – Allows comparison of the Planning Region against rest of state.



Map 4 Population changes, by County



Regional Industry and Development Profile

Only four (4) counties in the Planning Region are completely covered by building permit systems[11]. This fact enhances the ability of local officials to preclude development near high risk areas. Those counties are:

- Harper County.
- Harvey County.
- Pawnee County.
- Sedgwick County.

County Business Patterns (CBP) ZIP Code Business Patterns (ZBP)[12]

CBP is an annual series by the U.S. Census Bureau that provides subnational economic data by industry. This series includes two factors of relevance to this R-CFS:

- The number of establishments.
- Annual payroll.

This data is useful for studying the economic activity of small areas; analyzing economic changes over time; and as a benchmark for other statistical series, surveys, and databases between economic censuses. Businesses use the data for analyzing market potential, measuring the effectiveness of sales and advertising programs, setting sales quotas, and developing budgets. Government agencies use the data for administration and planning.

For the purpose of this R-CFS, EMFusion recommends the use of this data to determine large scale employers which should be considered as CI.

ZIP Code Business Patterns data is available shortly after the release of County Business Patterns. It provides the number of establishments by employment-size classes, by detailed industry in the U.S. Data for 2012, released in May 2014.

For the purpose of this R-CFS, Table 3 Counties Ranked by Number of Businesses, Least to Most shows the number of businesses with 20 or more employees, reported in each county. Highlighted cells are the number of businesses, based on employee size alone, recommended for consideration as addition to the counties CI inventory.

Note: A further analysis is of the number of companies not highlighted would need to be conducted to identify those that manufacture critical components or fall into other CI categories.

[11] Source: Source: US Census, 2013 Building Permits Surveys, Counties and Independent Cities with All Land Areas Covered by Building Permit Systems.
[12] Source: United States Census Bureau, online at http://www.census.gov/, accessed July 13, 2014

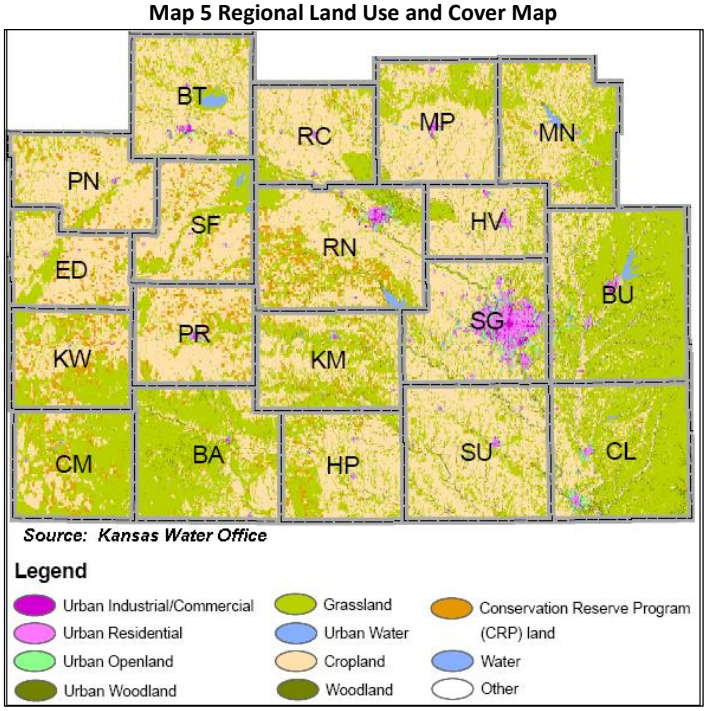
Table 3 Counties Ranked by Number of Businesses, Least to Most

				Number of Employees per Business						Number of Businesses per County
FIPS Code	County	Annual Payroll ($1,000)	Total Establishments	20-49	50-99	100-249	250-499	500-999	1000+	
33	Comanche	8,694	82	2	2	0	0	0	0	
97	Kiowa	24,274	96	7	2	0	0	0	0	
47	Edwards	20,571	97	3	4	0	0	0	0	
185	Stafford	17,601	130	4	1	0	0	0	0	
145	Pawnee	69,603	167	12	3	1	0	1	0	
95	Kingman	62,128	214	13	4	5	0	0	0	
77	Harper	62,233	217	8	4	3	0	0	0	
7	Barber	49,786	225	11	3	1	0	0	0	
159	Rice	74,680	266	18	5	2	1	0	0	
115	Marion	66,089	304	17	1	3	1	0	0	
151	Pratt	120,854	378	32	5	2	1	0	0	
191	Sumner	141,850	493	27	6	8	0	0	0	
35	Cowley	351,339	767	54	16	12	4	3	0	
79	Harvey	445,328	796	59	19	11	6	1	2	
113	McPherson	546,349	916	66	19	18	8	1	1	
9	Barton	400,123	975	87	16	11	3	1	0	
15	Butler	418,611	1,291	83	25	13	6	0	0	
155	Reno	846,202	1,634	123	50	31	8	1	2	
173	Sedgwick	9,072,211	11,834	1,202	470	255	55	16	6	
	Regional Total	**$12,798,526**	**20,882**	**1,828**	**655**	**376**	**93**	**24**	**11**	

The highlighted areas identify the general numbers of businesses that can be considered CI for the municipalities, based on employment numbers alone.

Map 5 Regional Land Use and Cover Map, below shows the Planning Region's land use prevalence. Grass and cropland are a critical component in land use in the area. Outside of Sedgwick, Reno, McPherson, Butler, Cowley and Sumner, there are few small urban industrial and commercial areas, making these counties as the most susceptible to human exposure to long or short term HazMat effects, while the other counties are at greater risk for HazMat impacts in agricultural production.

Map 5 Regional Land Use and Cover Map



Oil and Gas Production in Kansas and the Planning Region

Kansas' total oil production for 2013 was 46,813,249 barrels. The production from the top ten counties (21,155,078 barrels) amounts to about 45% of the state's total, about the same as 2012. Three counties from the Planning Region are included in the Top Ten Production Counties.

Table 4 Top 10 Oil Production Counties, 2013

County	bbl	% of total	2011 Rank	% Change from 2012 volume
1. Ellis	3,539,834	7.6	1	-.1
2. **Barber**	2,356,247	5.0	2	+4.6
3. **Barton**	2,201,435	4.7	3	0.0
4. Ness	2,117,288	4.5	5	-0.5
5. Russell	2,044,281	4.4	4	-4.2
6. Haskell	1,987,121	4.2	7	+20.0
7. Rooks	1,970,725	4.2	6	-2.7
8. Finney	1,757,348	3.8	8	+15.0
9. **Harper**	1,733,297	3.7	new	+98.5
10. Graham	1,447,502	3.1	9	-2.8
State Total	46,813,249			+7.2

Kansas' total production for 2013 was 294,875,032 mcf (thousand cubic feet). The production from the top ten counties (211,777,261 mcf) amounted to 72% of the state's total, about the same as in 2012.

Table 5 Kansas Top Ten Counties for Gas Production, 2013

County	mcf	% of total	2011 Rank	% Change from 2012 volume
1. Stevens	38,068,206	12.9	1	-5.8
2. Grant	29,339,937	9.9	2	-4.2
3. **Barber**	28,477,529	9.7	4	+9.0
4. Kearny	25,782,412	8.7	3	-6.3
5. Haskell	18,123,274	6.1	5	-8.4
6. Finney	16,734,833	5.7	6	-8.3
7. Morton	16,021,319	5.4	7	-10.0
8. **Harper**	13,559,391	4.6	new	+84.3
9. Seward	13,266,024	4.5	8	-7.5
10. **Comanche**	12,404,336	4.2	new	+59.0
State Total	294,875,032			-1.5

The following maps (5-10) give an overall picture of gas and oil production and changes, statewide. Map 12: Oil, Gas and Oil/Gas Production Density in the Planning Region shows the oil and gas industry is concentrated in the southern half of Kansas, including the Planning Region.

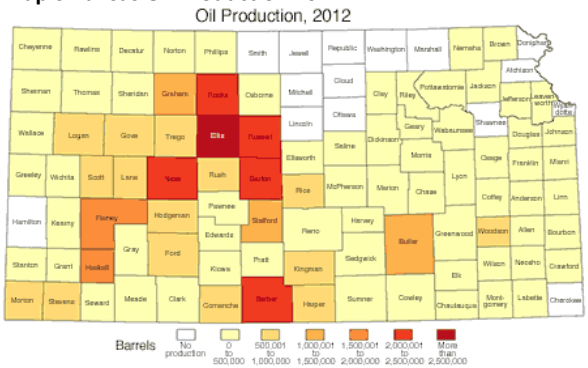
Impact of Energy Development on Roadways



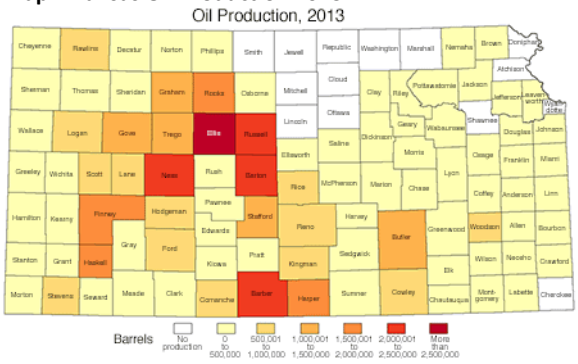
Energy development and production necessitates use of the transportation system, and the level at which that activity uses state highway system varies dramatically depending upon the energy source. The oil and gas energy boom that is occurring in South Central Kansas substantially increases truck traffic. The state highways that have been identified as corridors key to energy development, in particular for the oil and gas industry, which leads to increased truck traffic. These increases led to congestion at some locations and degradation of pavement conditions on infrastructure that was not designed to weather the wear and tear associated with heavy vehicles. Anecdotes about the impacts of energy development on the state's roads are widespread.

Roadways are the most visible form of transportation of hazardous materials. Although by comparison the amounts present at one particular location are limited by the container size, the sheer volume of containers alone increases the risk of an incident coupled with the volume of motor vehicle traffic and increased speeds. The unregulated traffic of commercial motor carriers will also be impacted by the 2014 legislative changes in exempting vehicles under 26,000 lbs. from safety requirements.

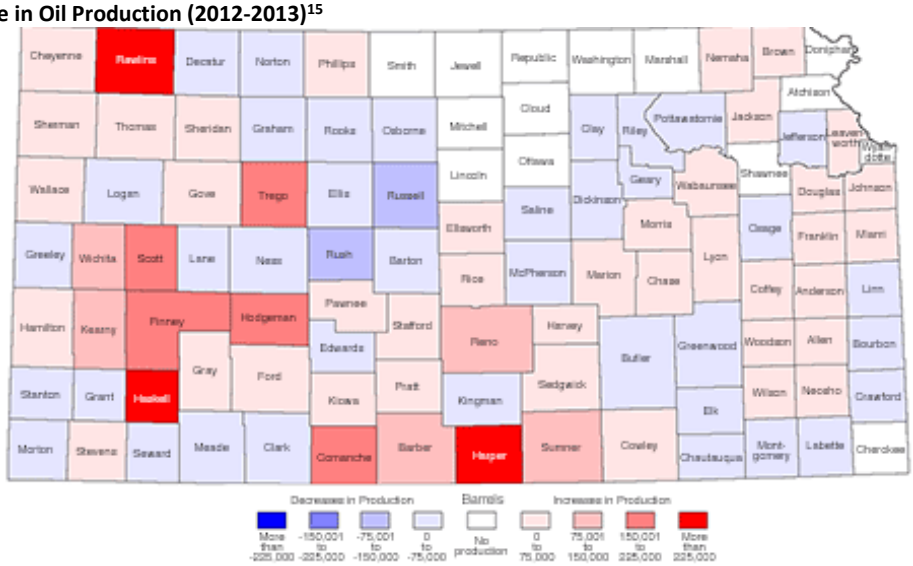
Map 6 Kansas Oil Production 2012[13]



Map 7 Kansas Oil Production 2013[14]

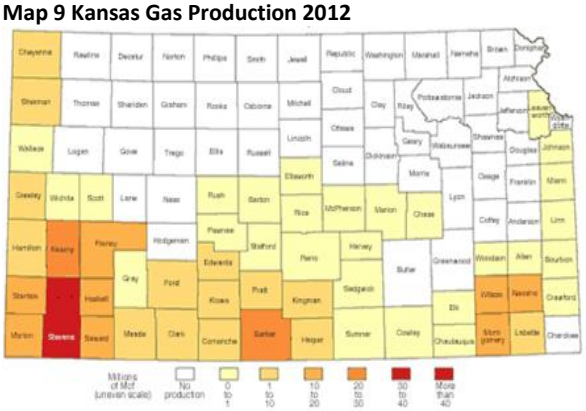


Map 8 Difference in Oil Production (2012-2013)[15]

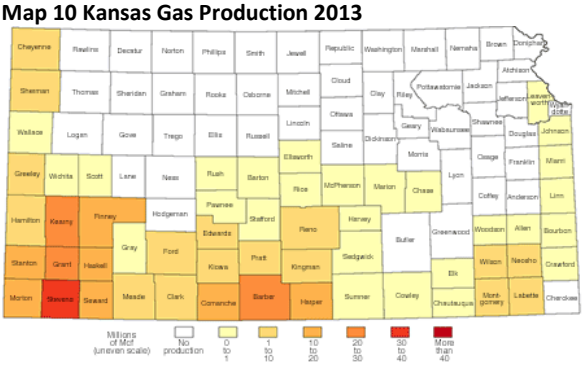


[13] Kansas Geological Survey, online at http://www.kgs.ku.edu/PRS/petro/gifs/county_oil_total_12.gif, accessed May 3, 2013.
[14] Kansas Geological Survey, online at http://www.kgs.ku.edu/PRS/petro/gifs/county_oil_total.png, accessed May 8, 2014.
[15] Source: Kansas Geological Survey, online at http://www.kgs.ku.edu/PRS/petro/gifs/county_change_in_oil.png, accessed, May 3, 2014.

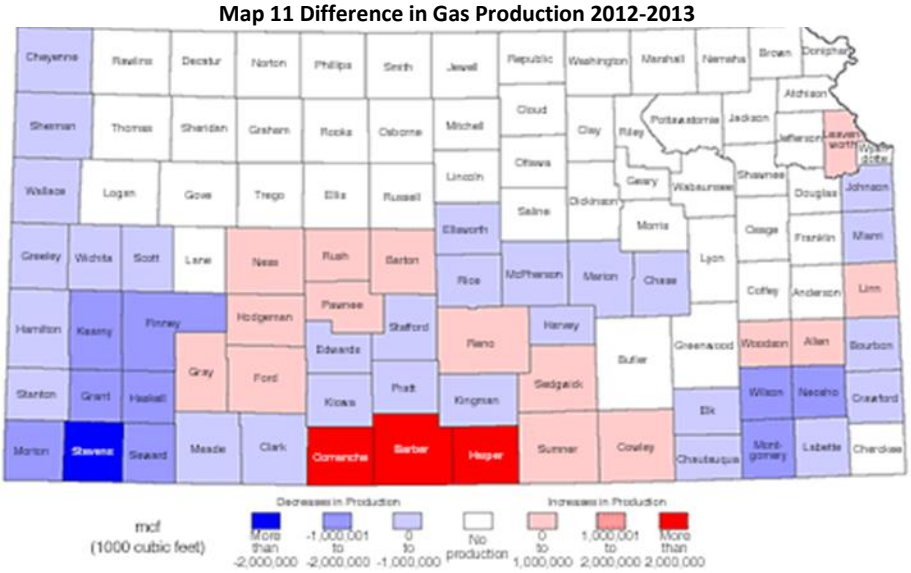
Map 9 Kansas Gas Production 2012



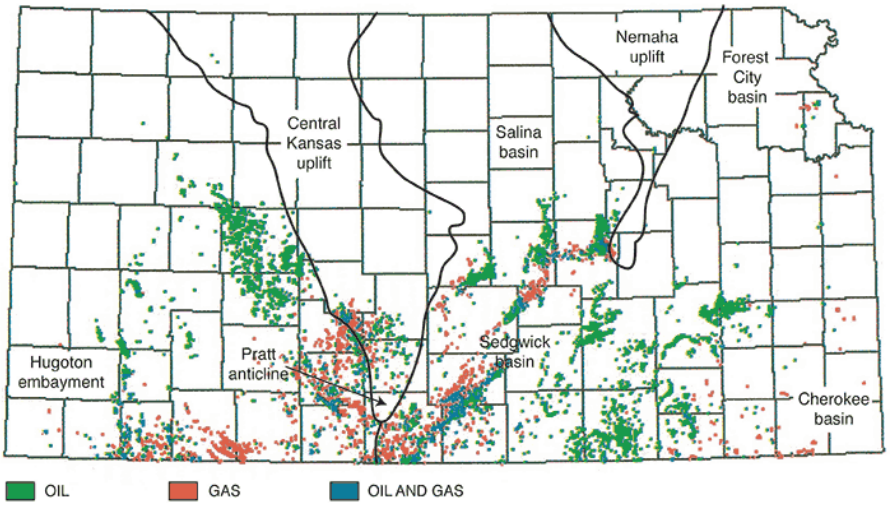
Map 10 Kansas Gas Production 2013



Map 11 Difference in Gas Production 2012-2013



Map 12: Oil, Gas and Oil/Gas Production Density in the Planning Region[16]



Renewable Fuel

According to a report[17] published by Fuel America, the Renewable Fuel Standard (RFS) creates competition in our nation's transportation fuel sector, ensuring market access for cheaper, clean, low carbon alternatives to oil, creating choice for consumers at the pump. The biofuel sector has invested billions of dollars since 2007 to bring these fuels to market, driving economic activity throughout the United States.

According to the report, the renewable fuel sector in Kansas - including conventional and cellulosic ethanol, biodiesel, and advanced biofuels and their suppliers - generates $4.1 billion of total economic output annually in Kansas. The sector supports 16,620 jobs and generates $1.0 billion in wages annually, contributing $200.4 million in Federal taxes and $123.3 million in Kansas' taxes each year.

There is no specific data available on biofuel revenues for the Planning Region.

Chemical Industry

According to the American Chemistry Council, "the economic contributions of the chemical industry are numerous, though often overlooked in traditional analyses that consider only the direct jobs and output of the industry. As discussed more thoroughly in the 2014 Guide to the Business of Chemistry, the business of chemistry directly creates hundreds of thousands of jobs. In addition to the jobs created directly by the industry, additional jobs are supported by the purchases of the chemical industry and by the subsequent expenditure-induced activity. The chemical industry paid its employees' wages and salaries and purchased supplies and services (including transportation, contract workers, warehousing, maintenance, accounting, etc.). These supplier businesses, in turn, made purchases and paid their employees, thus generating several rounds of economic spending and re-spending generated by the chemical industry."

[16] Source: Kansas Geological Survey, online at http://www.kgs.ku.edu/Publications/PIC/33gifs/fig4.gif, accessed July 11, 2014.
[17] Renewable Fuel Drives Economic Growth in Kansas, online at http://fuelsamerica.guerrillaeconomics.net/ accessed July 15, 2014.

Regional Transportation Infrastructure Profile

For the purpose of this profile, the findings of the American Society of Civil Engineers (ASCE) infrastructure assessment are included in this Regional Report.

> *"Infrastructure is the backbone of the state's economic and social activity… elements such as reliable power, efficient transportation, and safe schools provide quality of life and drive our economic engines as they attract business and allow it to prosper. The central location of the state of Kansas gives our infrastructure a unique importance as the crossroads of several interstate highways and rail systems intersect in our state."*
>
> 2013 Report Card for Kansas Infrastructure
> American Society of Civil Engineers

The 2013 Report Card for Kansas Infrastructure is based on the assessment of nine different categories of infrastructure, which were separately evaluated and graded by the ASCE. Overall, the infrastructure for the state of Kansas receives a C- grade. See Table 6: Kansas Infrastructure, by Category and Grade, below.

Table 6: Kansas Infrastructure, by Category and Grade

Infrastructure Type	Grade
Aviation	C
Bridges	D+
Dams	D
Drinking Water	C
Energy	C
Levees	C
Railroads	C
Roads	C+
Schools	C+
Overall	C

Map 13 Map of Transportation Infrastructure in SC KS, Excluding Pipelines

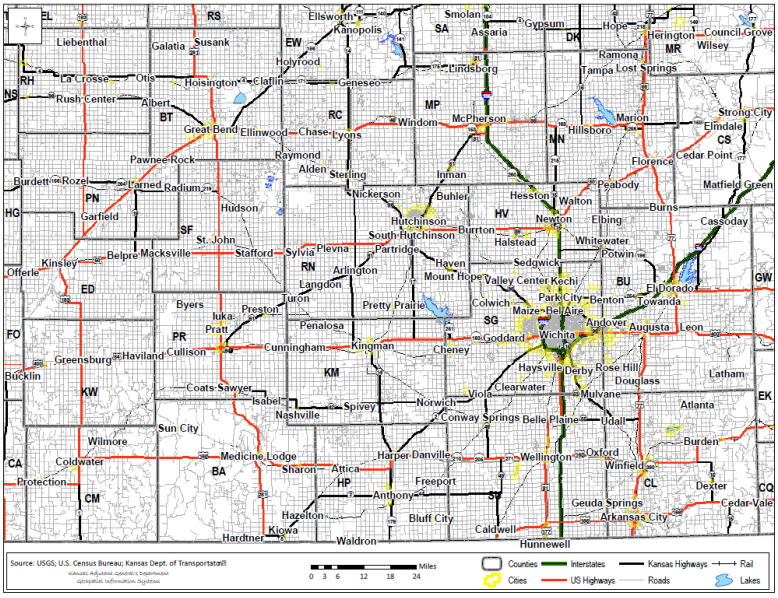


Table 7: Estimates are based on data from the 2007 Commodity Flow Survey[18]. Because of rounding, estimates may not be additive.

Mode of transportation	Value		Tons		Ton-mls (1)		Av. Mls./ shpt.	Value		Tons		Ton-mls		Av. Mls. per shpt . CV
	2007 (million $)	% of total	2007 (thousands)	% of total	2007 (millions)	% of total		CV (2)	Standard Error of %	CV	Standard Error of %	CV	Standard Error of %	
All modes	149,210	100	178,327	100	41,690	100	570	10.5	-	10.4	-	12	-	13.2
Single modes	126,851	85	173,009	97	37,471	89.9	233	12.2	2.6	10.4	0.5	12.8	2.6	14.8
Truck (3)	105,121	70.5	148,320	83.2	22,681	54.4	218	11.4	3.2	10	1.9	8.1	4.8	15.2
For-hire truck	67,710	45.4	95,135	53.3	18,175	43.6	398	14.8	2.8	13.5	2.5	8.7	4.4	12
Private truck	37,411	25.1	53,186	29.8	4,506	10.8	103	11.1	2.7	7.7	2.1	10.9	0.7	19.7
Rail	7,362	4.9	20,229	11.3	14,628	35.1	678	24.4	0.9	25.9	2	29.5	5.2	10.7
Air (incl. truck and air)	11,722	7.9	S	S	85	0.2	984	35.5	2.4	S	S	47.2	0.1	6.3
Pipeline (4)	2,646	1.8	4,381	2.5	S	S	S	29.2	1	20.7	1.8	S	S	S
Multiple modes	18,114	12.1	4,320	2.4	4,028	9.7	819	10.9	1.4	22.5	0.5	26	2.5	7.9

[18] SOURCE: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics and U.S. Department of Commerce, U.S. Census Bureau, 2007 Economic Census: Transportation Commodity Flow Survey, December 2009.

Mode of transportation	Value		Tons		Ton-mls (1)		Av. Mls./ shpt.	Value		Tons		Ton-mls		Av. Mls. per shpt. CV
	2007 (million $)	% of total	2007 (thousands)	% of total	2007 (millions)	% of total		CV (2)	Standard Error of %	CV	Standard Error of %	CV	Standard Error of %	
Parcel, U.S.P.S. or courier	15,158	10.2	466	0.3	314	0.8	818	12.8	1.2	25.3	0.1	22	0.2	8
Truck and rail	2,779	1.9	3,840	2.2	3,670	8.8	1,272	16.4	0.4	24	0.5	29.1	2.6	7.6
Truck and water	S	S	S	S	26	0.1	3,261	S	S	S	S	31.3	-	38.1
Rail and water	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Other multiple modes	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Other and unknown modes	S	S	998	0.6	191	0.5	S	S	S	39.3	0.2	27.7	0.1	S

KEY:
S = Estimate does not meet publication standards because of high sampling variability or poor response quality.
- = Zero or Less than half the unit shown; thus, it has been rounded to zero.
Mls. = miles
Shpt. = shipment
CV = coefficients of variation

(1) Ton-miles estimates are based on estimated distances traveled along a modeled transportation network.
(2) Coefficient of Variation.
(3) "Truck" as a single mode includes shipments that were made by only private truck, only for-hire truck, or a combination of private truck and for-hire truck.
(4) Estimates for pipeline exclude shipments of crude petroleum.
NOTES: Rows are not shown if all cells for that particular row have no values. For example, specific state by mode rows is not shown in this table because there are no data for those rows. Value-of-shipment estimates are reported in current prices. Estimated measures of sampling variability for each estimate known as CV are also provided in these tables. [19]

Roads and Highways

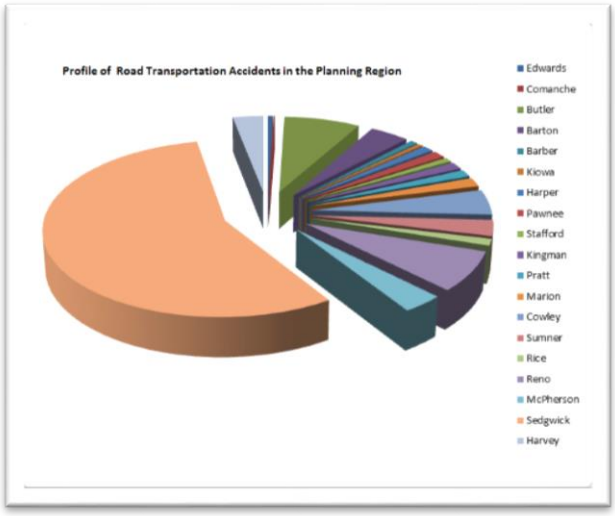
Kansas ranks among the top states in the nation for the number of highways per square mile, and the condition of the surface road infrastructure is rated above average among states.

Figure 9: Transportation Accidents - Roads, using KDOT data

[19] More information on sampling error, confidentiality protection, non-sampling error, sample design, and definitions may be found at http://www.bts.gov/cfs.

The "2013 Report Card for America's Infrastructure" explains that the state has over 140,000 miles of public roads, with are traveled for nearly 82 million miles by drivers. Of these public roads, 7.58% (or 10,300) are state highways maintained by KDOT, but they represent 51% of the daily miles traveled in Kansas. KDOT has developed a transportation resilience program and procedures to maintain safety and mobility in an emergency, including:

- Kansas 511: Road condition information (e.g. crash reports, weather conditions, construction detours).
- Intelligent Transportation System: AMBER Alert, detour information, incident management, emergency notification.



The Kansas Turnpike Authority (KTA) owns and maintains 236 miles of tollway throughout the state, some of which transects the Planning Region (I-35 from Emporia to the Kansas/Oklahoma border). KTA follows a pavement-resurfacing schedule, but does not track payment conditions. However, the KTA estimates its tollways meet or exceed the performance measure thresholds for interstates.

Kansas' Key Facts from the 2013 Report Card for America's Infrastructure:

- Driving on roads in need of repair **costs Kansas motorists $646 million** a year in extra vehicle repairs and operating costs – **$319 per motorist**.
- **62%** of Kansas's roads are in poor or mediocre condition.
- Kansas has **140,609** public road miles.
- Kansas's highway vehicle-miles traveled in 2009 was approximately **10,458 per capita**, ranking it **21st** in the nation.
- Kansas's gas tax of **25** cents per gallon has not been increased in **9** years.

High prices of propane and fuel oil are pushing some businesses to convert to natural gas, **currently** seeing a production boom in the United States. Businesses using bulk amounts of fuel see a sizable drop in their costs after they switch; their major hurdle is getting access to natural gas if there is no pipeline system nearby.
One answer is a Portable Pipeline, sometimes called a Virtual Pipeline. Trucks are used to take compressed natural gas (CNG) and liquefied natural gas (LNG) from supply sites to storage and decompression or vaporization sites, after which they can be used by business and industry.

A new type of transport truck is very concerning to first responders. The trucks have four 38-foot DOT Type IV long cylinders, but they are covered with walls and from the outside look like a regular tractor trailer box truck. Though the truck is correctly placarded, at first glance the truck might not be identified as a Hazardous Material-hauling vehicle. Other considerations on Portable Pipelines for first responders:

- These trucks can carry 355,000+ standard cubic feet of pressurized gas.

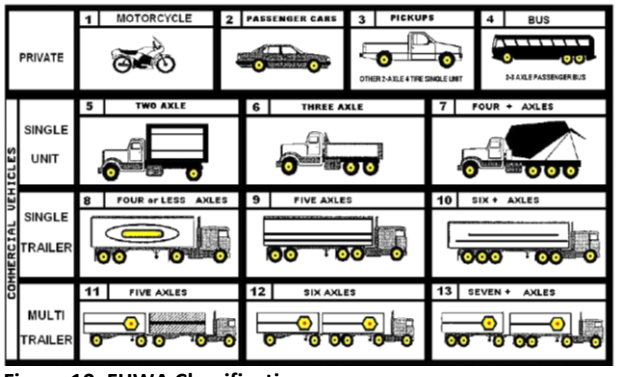


Figure 10: FHWA Classifications

- During an activation of the module safety system, all four cylinders will vent simultaneously from vent piping at the top rear of the trailer.
- Venting cannot be stopped and can take 45-60 minutes to vent completely.

Bridges

The National Bridge Inventory System (NBIS) of the Federal Highway Administration (FHWA) ranks Kansas 4th in the nation for the total number of bridges, with a total of 25,233. The number of bridges under KDOT's inventory includes 2,426 national highway system (NHS) bridges, a number which is above the national average for state's department of transportation.

While Kansas has a relatively low percentage of NHS' bridges considered functionally obsolete, the number of functionally obsolete bridges in Kansas is above the national average. A functionally obsolete bridge has older design features and, although it is not unsafe for vehicles, it cannot safely accommodate current traffic volumes or vehicles of certain size and weight.

The FHWA has determined that Kansas was out of compliance with the 2007 and 2008 NBIS, including documentation of fracture-critical bridge inspections. A bridge is considered fracture-critical when it has a member whose failure might cause a portion or the entire bridge to collapse.

The 2013 Report Card for Kansas Infrastructure points out that in spite of KDOT's record of continues bridge condition improvement, its Long Range Transportation Plan projects a gap of $700 m, jeopardizing the continued maintenance and improvement efforts.

A 2013 news local news article[20] mentions that "*According to Federal Highway Administration statistics from last year, Kansas had 347 bridges — out of more than 25,000 statewide — that were both rated in poor condition and lack the structural redundancies needed to guard against collapse. That compares with 302 in California and 189 in Illinois. But most of those 347 bridges in Kansas are aging, county-owned spans. They are a reflection of an aging rural population that doesn't have the financial clout to keep the little-used roadways open*". The article goes on to quote KDOT's chief bridge engineer explaining that "most of the structurally deficient and fracture critical bridges in the state are in rural areas and not under state supervision", inferring that those bridges belong to municipalities.

Kansas' Key Facts from the 2013 Report Card for America's Infrastructure:

- 2,658 of the 25,176 bridges in Kansas (10.6%) are considered structurally deficient.
- 1,959 of the 25,176 bridges in Kansas (7.8%) are considered functionally obsolete.
- Kansas received $43.1 million from the Federal Highway Bridge Fund in FY 2011.

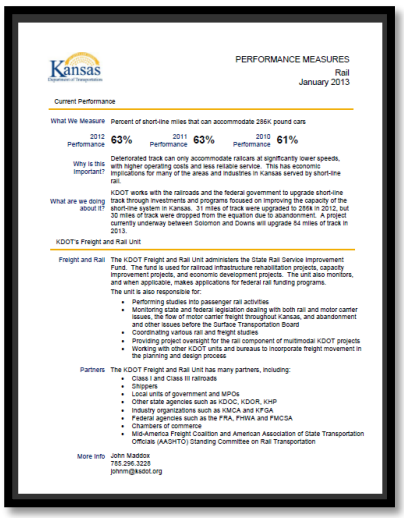
[20] Article: Future bleak for aging county bridges in Kansas, Sept 15, 2013; Capital Journal online at http://cjonline.com/news/2013-09-15/future-bleak-aging-county-bridges-kansas accessed July 22, 2014.

Rail Transportation

Kansas' Key Facts from the 2013 Report Card for America's Infrastructure:

- Kansas as a whole has **14 freight railroads** covering **4,891 miles** across the state, ranking it **6th** in the nation by mileage.

Railroad carriers in the region, including BNSF, UP, K&O, SK&O, and V&S provided substantial information on the number and types of hazardous materials carried through area. Some of those were identified as being potentially the most dangerous: military loads (actual commodity not identified), alcohols, liquefied petroleum gases, sodium hydroxide, chlorine, acrylonitrile and sulfuric acid.



Kansas

PERFORMANCE MEASURES
Rail
January 2013

Current Performance

What We Measure: Percent of short-line miles that can accommodate 286K pound cars

2012 Performance: 63%
2011 Performance: 63%
2010 Performance: 61%

Why is this important? Deteriorated track can only accommodate railcars at significantly lower speeds, with higher operating costs and less reliable service. This has economic implications for many of the areas and industries in Kansas served by short-line rail.

What are we doing about it? KDOT works with the railroads and the federal government to upgrade short-line track through investments and programs focused on improving the capacity of the short-line system in Kansas. 31 miles of track were upgraded to 286k in 2012, but 30 miles of track were dropped from the equation due to abandonment. A project currently underway between Solomon and Downs will upgrade 64 miles of track in 2013.

KDOT's Freight and Rail Unit

Freight and Rail: The KDOT Freight and Rail Unit administers the State Rail Service Improvement Fund. The fund is used for railroad infrastructure rehabilitation projects, capacity improvement projects, and economic development projects. The unit also monitors, and when applicable, makes applications for federal rail funding programs.
The unit is also responsible for:
- Performing studies into passenger rail activities
- Monitoring state and federal legislation dealing with both rail and motor carrier issues, the flow of motor carrier freight throughout Kansas, and abandonment and other issues before the Surface Transportation Board
- Coordinating various rail and freight studies
- Providing project oversight for the rail component of multimodal KDOT projects
- Working with other KDOT units and bureaus to incorporate freight movement in the planning and design process

Partners: The KDOT Freight and Rail Unit has many partners, including:
- Class I and Class III railroads
- Shippers
- Local units of government and MPOs
- Other state agencies such as KDOC, KDOR, KHP
- Industry organizations such as KMCA and KFGA
- Federal agencies such as the FRA, FHWA and FMCSA
- Chambers of commerce
- Mid-America Freight Coalition and American Association of State Transportation Officials (AASHTO) Standing Committee on Rail Transportation

More Info: John Maddox
785.296.3228
johnm@ksdot.org

Figure 11: Rail Transportation System Performance, KDOT

For security reasons the railroads will not divulge times, dates or any specific information about their shipments. The information they have provided is based upon car load shipments of a specific type of chemical through an area in a years' time.

Maps and charts were made for every county that had an active railroad that carried HazMat. County reports contain the HazMat quantity and type, railroad name, and lines in used, moving through their county on a yearly basis.

KDOT has oversight of a program [21] for mitigation of railroad hazards at highway/railroad grade crossings on public roads. The department has established a state rail crossing inventory and formula to prioritize all 5950 at-grade public crossings in Kansas. KDOT uses the priority formula "hazard index" (which is based on highway traffic, train traffic, and a warning device factor) to rate the relative hazard potential for all crossings.

On-site rail crossing, reviews are shared with local government agencies responsible for highway or roadway.

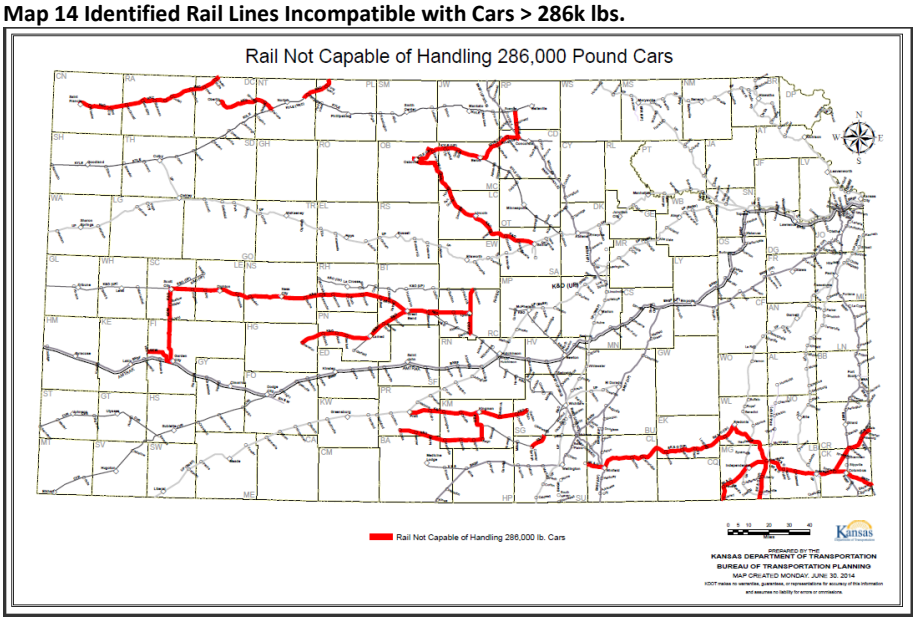
Rail transportation of HazMat in the U.S. is recognized as the safest method of moving large quantities of chemicals over long distances. Recent statistics show that the rail industry's safety performance, as a whole, is improving. In particular, the vast majority of hazardous materials shipped by rail tank car every year arrive safely and without incident, and railroads generally have an outstanding record in moving shipments of hazardous materials safely.

The Kansas rail system consists of 21 railroads of which five are identified in the South-Central Kansas Region. A comprehensive rail network comprising a total of 4,721 route miles of tracks serves Kansas. The Class I railroad network is a 2,790 mile spine which provides long haul service for both in- and out-bound products. The major Class I railroads currently operating in Kansas are Burlington Northern Santa Fe (BNSF) Railway and the Union Pacific (UP) Railroad. BNSF operates 1,237 miles of track in Kansas and UP operates 1,535 miles. Short line, or Class III railroads, own or operated over an additional 1,931 miles of track.

The following maps were obtained from KDOT, and depict information about the rail infrastructure of the state and the Planning Region.

[21] Section 130 of the 1973 Federal-Aid Highway Act.

Map 14 Identified Rail Lines Incompatible with Cars > 286k lbs.



Map 15 Kansas Map of Lower Rail Weights and over 5,000 Carloads/year

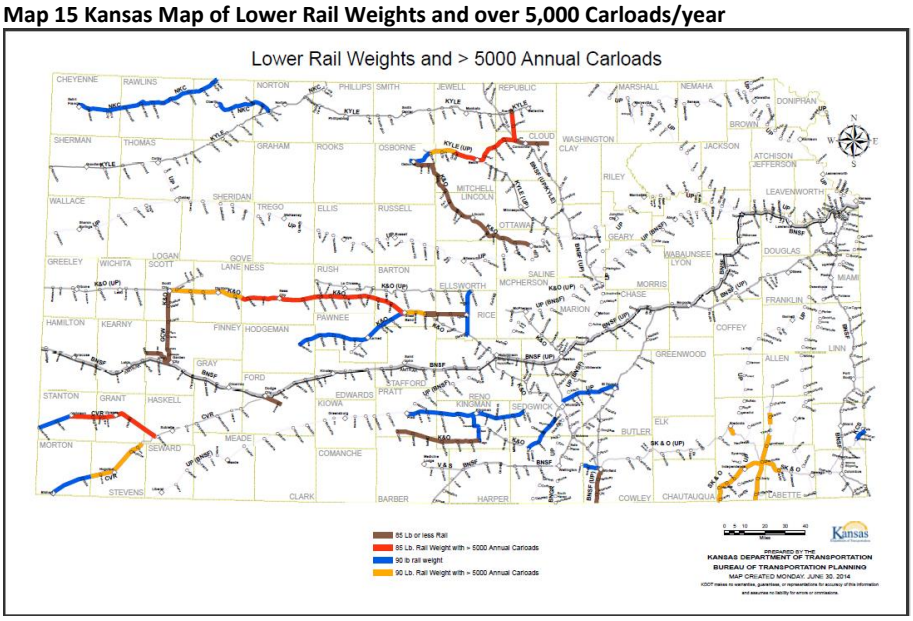


Table 8: Kansas Rail Traffic Directional Flow

Traffic Type	Tons (million)	Percent	Carloads/Units	Percent
Interstate Inbound	29.1	8.5%	459,603	7.9%
Interstate Outbound	20.7	6.0%	377,604	6.5%
Intrastate	1.2	0.3%	12,679	0.2%
Through Freight	293.4	85.2%	4,983,097	85.4%
Total=	344.5	100.0%	5,832,983	100.0%

The table below shows the types of chemicals and the RR companies that transport them. The table includes 18 of 19 counties, because there are no active rail lines through Comanche County.

Table 9: Top 12 High Risk Chemicals transported through the Planning Region

STCC DESCRIPTION	RAILROAD	COUNTIES TRAVERSED	CLASS CODE	RESIDUE CAR COUNT	LOADED CAR COUNT	RESIDUE INTER-MODAL	LOADED INTER-MODAL	TOTAL LOADED COUNT
TOTALS				3708	3236	4	347	3583
AMMONIA, ANHYDROUS	BNSF, UP, SKO	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	2.2	1585	1415	0	10	1425
BORON TRIFLUORIDE DIETHYL ETHERATE	BNSF	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	8	0	0	0	2	2
CARBON DISULFIDE	BNSF, UP	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	3	0	1	0	1	2
CHLORINE	BNSF, UP, SKO	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	2.3	14	27	0	2	29
ETHYLENE OXIDE	UP	BU, CL, HV, KW, MN, MP, PR, RN, SG, SU	2.3	2	3	0	1	4
FORMALDEHYDE SOLUTIONS	BNSF, UP, SKO	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	8	0	0	0	33	33
HYDROGEN CHLORIDE, ANHYDROUS	BNSF	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	2.3	0	0	0	2	2
HYDROGEN SULFIDE	BNSF	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	2.3	0	0	0	1	1
NITRIC ACID	BNSF, UP	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	8	3	4	0	150	154
PHOSPHORUS TRICHLORIDE	BNSF	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	6.1	0	0	0	1	1
SULFUR DIOXIDE	BNSF	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	2.3	58	19	0	0	19
SULFURIC ACID	BNSF, UP, SKO	BA, BU, CL, ED, HP, HV, KW, MN, MP, PR, RN, SG, SF, SU	8	2046	1767	4	144	1911

Top 30 Materials Transported by Rail

A comparison was done of the railroads identified carrying hazardous materials through the region in a year's period. The following 30 commodities were identified as the most numerous based upon rail companies reported car loads.

Figure 12 Top 30 Most Transported Hazmat Materials through the Region

ADHESIVES

AEROSOLS

AIR BAG INFLATORS

ALCOHOLS, N.O.S.

AMMONIA, ANHYDROUS

BATTERIES, WET, FILLED WITH ACID

CARBON DIOXIDE

COMPRESSED GAS, N.O.S.

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

CORROSIVE LIQUIDS, N.O.S.

ELEVATED TEMPERATURE LIQUID, N.O.S.

ENGINES, FUEL CELL

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

ETHANOL

EXTRACTS, FLAVORING, LIQUID

FAK-HAZARDOUS MATERIALS

FIRE EXTINGUISHERS

FIREWORKS

FLAMMABLE LIQUID, N.O.S.
GAS OIL
ISOPROPANOL
LIGHTER REFILLS
LIQUEFIED PETROLEUM GAS
PAINT
PETROLEUM CRUDE OIL
PRIMERS, CAP TYPE
RESIN SOLUTION
SMOKELESS POWDER FOR SMALL ARMS
SULFER
SULFURIC ACID
WASTE POLYCHLORINATED BIPHENYLS, SOLID

Data on railroad transportation incidents that included a HazMat release are contained in individual county profiles.

Dams and Levees

In Kansas, the Dam Safety Program in the Division of Water Resources is lead for safety activities related to water structures, including the review and approval of plans for constructing new dams and for modifying existing dams, ensuring quality control during construction, and monitoring dams that, if they failed, could cause loss of life, or interrupt public utilities or services. The Division regulates the construction, operation, and maintenance of all dams or other water obstructions, with the exception of federal reservoirs.

For projects with several independent elements (dams, spillways, powerhouse, low level outlet, etc.), the overall Project hazard potential classification will be that assigned to the highest rated project element. Size classification is based on either structural height, or reservoir storage capacity, whichever gives the higher classification. See Table 10 Kansas Dam Hazard Classification.

A dam regulate by DWR is defined as any artificial barrier, including its appurtenant works, with the ability to impound water wastewater or other liquids that has either:

- A height of 25 feet or more
- A height of 6 feet or more and also the capacity to impound 50 or more acre-feet.

Height and/or storage capacity are used by many states to legislatively define State Dam Safety office jurisdictional or non-jurisdictional dams. In some states, very high or large storage dams are automatically assigned High Hazard Potential. The size classification is also used to define dams listed in the US Army Corps of Engineers National Inventory of Dams.

The Hazard Potential and Size classifications of a project depend on the legislative authority, rules, and regulations of the project regulatory authority, and can vary significantly between state and federal agencies.

Table 10 Kansas Dam Hazard Classification

Class A	Class B	Class C
Low	Significant - Must have emergency action plan	High - Must have emergency action plan

Kansas uses the same hazard classification as the NID's, which consists of dams meeting at least one of the following criteria:

1) High hazard classification - loss of one human life is likely if the dam fails.

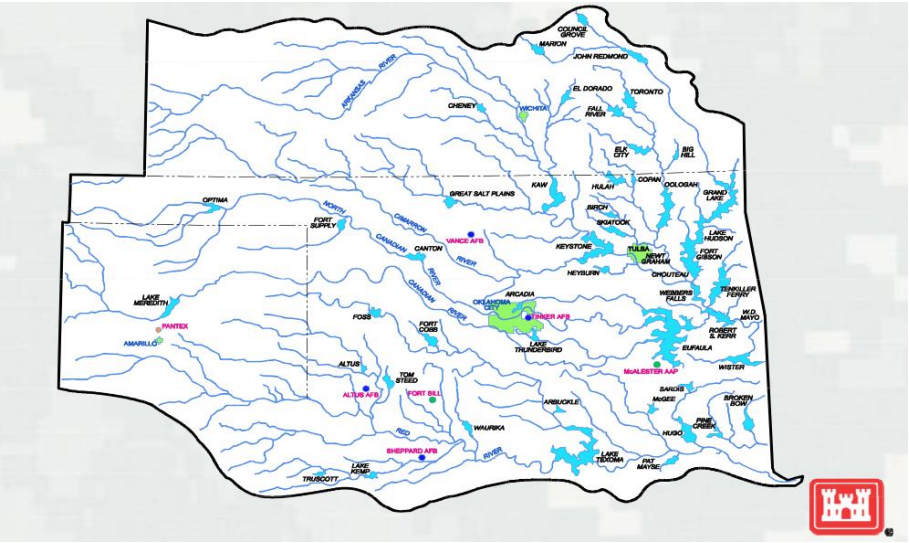
2) Significant hazard classification - possible loss of human life and likely significant property or environmental destruction.
3) Equal or exceed 25 feet in height and exceed 15 acre-feet in storage.
4) Equal or exceed 50 acre-feet storage and exceed 6 feet in height.

All counties in the Planning Region have identified existing high hazard dams within their jurisdiction, within their Multi-Jurisdictional Hazard Mitigation Plans. Many of these Hazard Mitigation Plans are available online.

EMFusion requested data from the Division of Water Resources, of the Kansas Department of Agriculture, related to the possible impact of high hazard dams on transportation.

Status of Dams under the Jurisdiction of the Tulsa District Corps of Engineers

The U.S. Corps of Engineers (USACE), Tulsa District has made available information on the safety status of dams under their oversight. See Map 16 Tulsa District Civil Works Boundaries below.



In Kansas, the Tulsa District is responsible for:

- The John Redmond Dam (Coffey County).
- The **Marion Dam (Marion County)***.
- The Council Grove Dam (Morris County)
- The **El Dorado Dam (Butler County)*.**
- **T**he Elk City Dam (Montgomery County).
- The Big Hill Dam (Labette County).
- The Fall River Dam (Greenwood County).
- The Toronto Dam (Woodson County).

In addition, the Tulsa District has jurisdiction over:

- The Hartford Levee (Lyon County)
- Caney Levee (Montgomery County),
- Lake City Levee (Montgomery County).

***The Marion Dam and the El Dorado Dam are in the Planning Region.**

Kansas' Key Facts from the 2013 Report Card for America's Infrastructure:

- Kansas's dam safety program has 9.18 full-time employees, each responsible for an average of 668.0 state regulated dams.
- Kansas has 230 high hazard dams.
- 81% of the state regulated dams in Kansas have an Emergency Action Plan.
- Kansas's state dam safety program has an annual budget of $368,066.
- Kansas has approximately 772 miles of levees according to the current FEMA Midterm Levee Inventory.

Air Transportation

For this R-CFS, air transportation in the area was limited to two commercial and one military airport, all located in Sedgwick County. In addition, the analysis for this project also looked at the potential of smaller airports where crop duster activity might occur. It was determined that there was insufficient amount of chemicals stored at these locations to be of a significant risk to the communities in close proximity.

Kansas' Key Facts from the 2013 Report Card for America's Infrastructure, there are **141** public-use airports in Kansas.

Pipeline Transportation

Pipelines in the Regional Area were identified by county and location, as well as their contact information. The pipelines were mapped by county. Each pipeline was charted to contain emergency call back numbers and what commodities were listed as being pushed through the lines. All of this information is found in the individual county reports.

Oil and gas production for the region was also identified and charted for a 14 year period for each county. This included the number of active wells and the total production from each of the wells. The regional rollup for Oil and Gas Production for the year 2014 is:

- 10,046 active oil wells.
- 4,633 active gas wells.

Oil companies have been leasing mineral rights on thousands of acres in south-central Kansas, where they have begun drilling wells using horizontal hydraulic fracturing, or "fracking," a technique that has drawn scrutiny from the Environmental Protection Agency and other states.

Table 11 News article on fracking in Kansas

Kansas State Rep. Vince Wetta, whose district is in the area, organized a recent meeting in Wellington with about 500 area residents and officials from SandRidge Energy, Chesapeake Energy and Shell Oil Co. Wetta said the flurry of leasing activity is an extension of oil drilling in neighboring Oklahoma.

The new Kansas drilling will involve fracking, which was pioneered in Kansas in the 1940s and involves pumping water, sand and chemicals into the well to open cracks and help oil and gas flow to the surface. The method has been used for decades, but has been developed over the years to such an extent that it can now be used in the Kansas formation, said Ed Cross, president of the Kansas Independent Oil and Gas Association, a trade group.

"Horizontal drilling and hydraulic fracturing technology that's now available can go into these unconventional formations," Cross said. "We've known for years about these source rocks (in Kansas) ... but they're in tight formations ... and you couldn't get to them."

As fracking increases around the country, it has drawn attention from environmental groups questioning whether the method contaminates groundwater. Oil and gas companies that use fracking have said the method is safe.

The Environmental Protection Agency said last week it found a possible link between hydraulic fracturing and groundwater pollution in a central Wyoming town. The EPA said the findings from that study, however, are specific to that town, Pavillion, Wyo. Calgary, Alberta-based Encana, which owns that Wyoming gas field also said the compounds could have had other origins not related to gas development.

Other states also have raised concerns about fracking. Colorado regulators this month moved to require energy companies to disclose the concentrations of all chemicals they use in hydraulic fracturing. Companies in Texas will also have to begin listing their fracking fluid chemicals in February.

Kansas does not require companies to disclose the chemicals they use in hydraulic fracturing, according to the Kansas Corporation Commission, which regulates the $6 billion oil and gas industry in Kansas. KCC data also show that the state has about 5,000 intent-to-drill notices so far this year, compared with 2,800 such notices in 2009.

The number of intent-to-drill notices is also up in the south-central region. SandRidge, which filed no intent-to-drill notices in south-central Kansas in 2009, has filed 21 in the last six months alone. Shell, which also didn't file any drilling notices in south-central Kansas in 2009, filed seven in the last six months, and Chesapeake filed 10 intent-to-drill notices in the last six months in south-central Kansas, up from two in 2009.

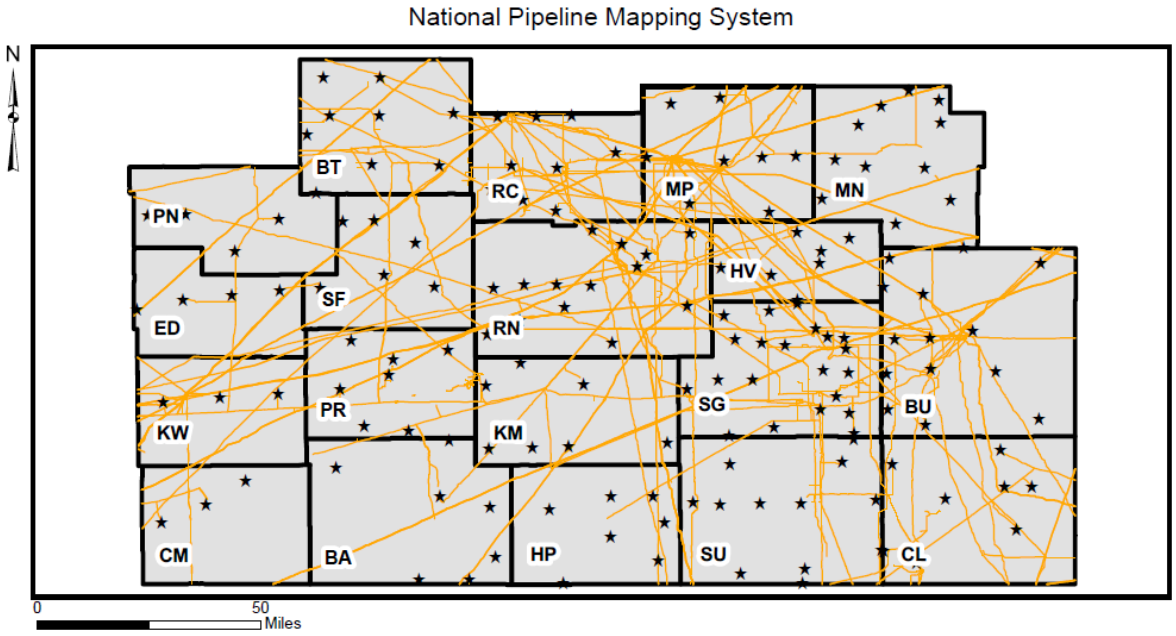
James Roller, of Chesapeake Energy, said his company bought mineral leases to about 400,000 acres in four counties in south-central Kansas recently. He said the company has drilled three oil and gas wells using horizontal hydraulic fracturing in the area, and that Chesapeake is evaluating results from those wells. He would not say how much the company has spent on those leases.

The boost in potential drilling could be a "game changer" in Kansas, said Cross of KIOGA. But he said it's unclear how productive any drilling in the region will be and the costs of horizontal fracking, which he estimates at about $3.5 million per well, is too costly for smaller members.

"It's an unconventional play, and no one's really saying what they'd expect the reserves to be," Cross said. "This is coming up into our state, and there's a lot of apprehension, a lot of anxiety. You have to be careful about overstating stuff because there are areas of the country that it didn't pan out."
The Sierra Club has said it's concerned that the pace of development in south-central Kansas may be too much for Kansas regulators.

"Our concern is that the state doesn't have the regulations they need to deal with the kind of volume the industry is beginning to see in the state," said Yvonne Cather, chair of the Kansas chapter of the Sierra Club. "I don't believe the regulations that are current are going to address the problems that have happened in other states."
KOMU 8 online at http://www.komu.com/news/oil-companies-explore-south-and-central-kansas/

Map 17: Pipelines across the Planning Region



These data sets are for the purpose of tracking all natural gas transmission pipelines, hazardous liquid trunklines, and LNG facilities in the United States. The data will be used to support the assessment risk associated with the Nation's liquid and gas pipeline infrastructure. Distribution of NPMS data is handled for the OPS by the NPMS National Repository. Neither the United States Government nor any party involved in the creation and compilation of NPMS data and maps guarantees the accuracy or completeness of the products. NPMS data has a target accuracy of ±500 feet and resides in geographic coordinates. NPMS data must never be used as a substitute for contacting the appropriate local one-call center prior to digging.

The U.S. Department of Transportation (USDOT), Research and Special Projects Administration (RSPA), Office of Pipeline Safety (OPS) is working with other federal and state agencies and the pipeline industry to create a National Pipeline Mapping System (NPMS). The NPMS is a full-featured geographic information system (GIS) containing the location and selected attributes of the major natural gas transmission lines and hazardous liquid trunklines, and liquefied natural gas (LNG) facilities operating in the United States and other offshore entities. Michael Baker Jr., Inc. (Baker), as the primary contractor, assumes all responsibility of the NPMS National Repository. Source data is contributed by pipeline operators to the National Repository. This metadata is for the entire national dataset. Additional metadata for individual pipeline systems are also available.

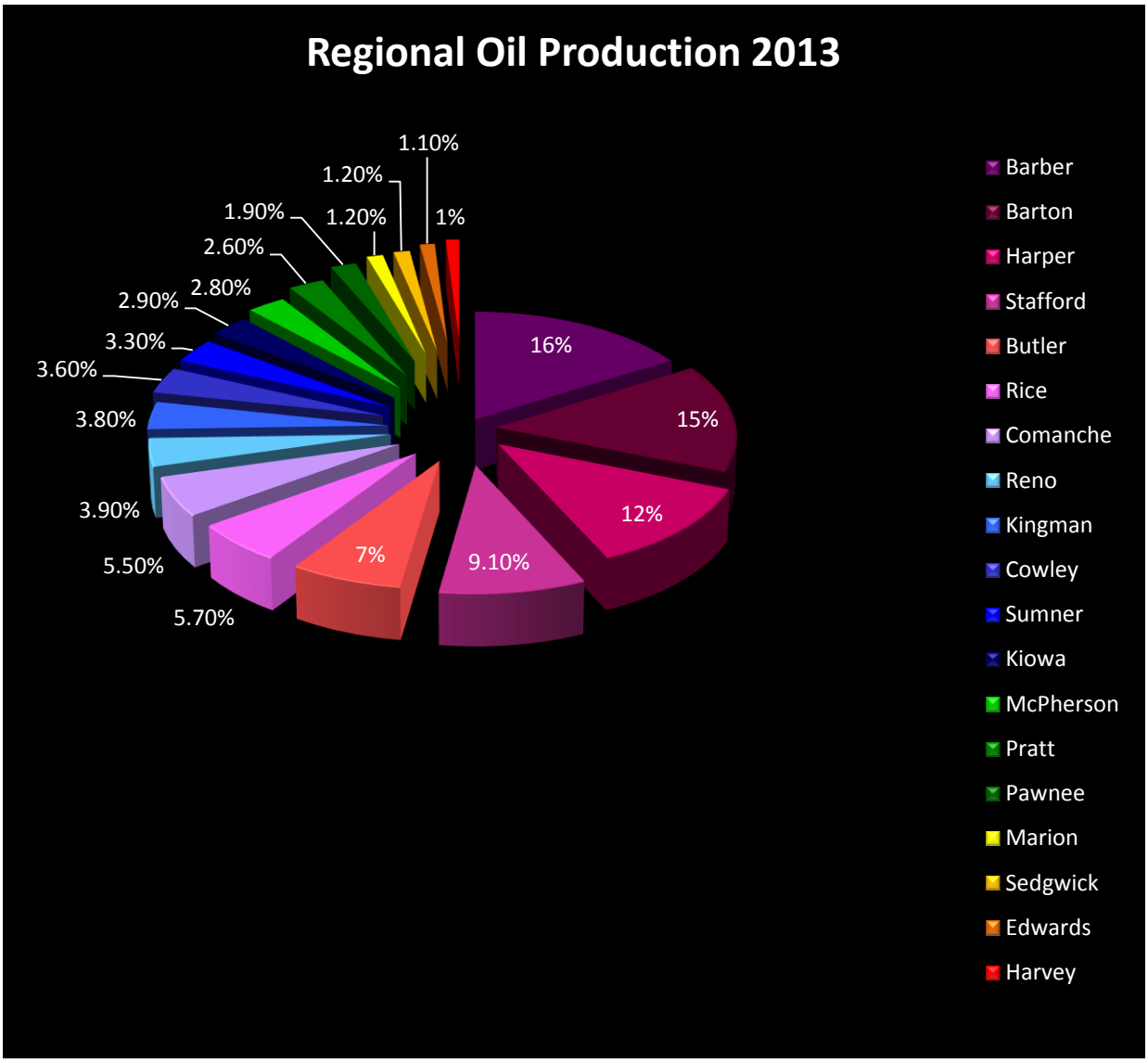


Figure 13: Regional Oil Production for 2013

Natural Hazard Risk to the Regional Transportation Infrastructure

Blizzards

According to the National Climatic Data Center (NCDC)[22] data, 12 blizzard events were reported in the Region between 03/01/2010 and 03/31/2014 (1492 days).

Table 12 Blizzard events reported in the Region

Number of County/Zone areas affected:	12
Number of Days with Event:	3
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	0
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

Dense Fog

According to the NCDC[23] data, 2 dense fog events were reported in the Region between 03/01/2010 and 03/31/2014 (1492 days).

Table 13 Dense fog events reported in the Region

Number of County/Zone areas affected:	2
Number of Days with Event:	2
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	2
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

Dense Smoke

According to the NCDC[24] data, **0** dense smoke events were reported in the Region between 03/01/2010 and 03/31/2014 (1492 days).

[22]NCDC, Blizzard Reports, SC Region, online at http://www.ncdc.noaa.gov/, Accessed July 1, 2014
[23]NCDC, Blizzard Reports, SC Region, online at http://www.ncdc.noaa.gov/, Accessed July 1, 2014
[24]NCDC, Blizzard Reports, SC Region, online at http://www.ncdc.noaa.gov/, Accessed July 1, 2014

Drought

Drought affects all of Kansas, and it can also impact transportation infrastructures. The Kansas State Climate Office published a report in June 2014, which explained the drought conditions of the state, and notes the current drought levels in South Central Kansas.

Drought conditions persist across the state[25].

Only a tiny sliver of extreme Northeastern KS is in near normal conditions. However, the area of extreme drought has been reduced, particularly in Central and South Central KS. There was a small increase in extreme drought in extreme Southwestern KS, where rainfall was more limited. Nearly 45 percent of the state is now in extreme drought conditions and an additional 29 percent of the state is in severe drought. The wet June, and the neutral outlook for July, gives some hope that conditions will continue to improve. The El Niño/Southern Oscillation (ENSO) is expected to switch to an El Niño event by late summer, but remains to be seen what impact will be felt. The July temperature outlook is neutral state-wide, with an increased chance of cooler than normal temperatures in the desert Southwest through Colorado. The precipitation outlook is also neutral, with equal chances of above or below normal precipitation for July. This does not indicate how that moisture might be distributed, and means heavy rains or extended dry periods are both possible.

June 2014
Mary Knapp
State Climatologist

The effects of drought are not limited to its direct impact to transportation infrastructure or agriculture. Droughts also have a direct impact on emergency response agencies. Rural fire departments depend on ponds and lakes for emergency water supplies to respond to fires. The continued drought conditions in the Region have negatively impacted these resources, and were noted as an increased risk by participating agencies.

Flash Flood Events

According to the NCDC[26] data, 31 flash flood events were reported between 03/01/2010 and 03/31/2014 (1492 days).

Table 14 Flash flood events affecting the Region

Number of County/Zone areas affected:	9
Number of Days with Event:	10
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	7
Number of Days with Event and Crop Damage:	7
Number of Event Types reported:	1

Flood Events

According to the NCDC[27] data, 71 events were reported between 03/01/2010 and 03/31/2014 (1492 days).

[25]Source: Kansas State Climate Office: http://www.ksre.ksu.edu/wdl/
[26]NCDC, Blizzard Reports, SC Region, online at http://www.ncdc.noaa.gov/, Accessed July 1, 2014
[27]NCDC, Blizzard Reports, SC Region, online at http://www.ncdc.noaa.gov/, Accessed July 1, 2014

Table 15 Flood events reported in the Region

Number of County/Zone areas affected:	18
Number of Days with Event:	31
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	11
Number of Days with Event and Crop Damage:	9
Number of Event Types reported:	1

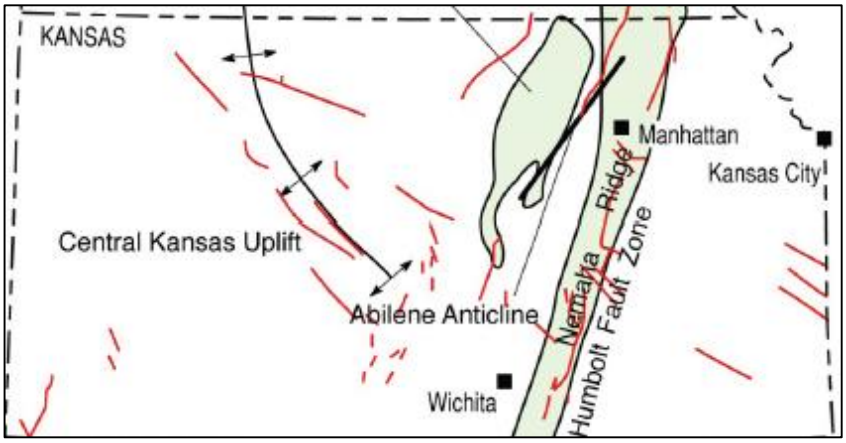
Earthquakes

In the United States, Kansas is not perceived as a center of seismic activity. However, Kansas does have its share of earthquakes, including micro quakes, which occur on almost a daily basis, and can occur anywhere in the state, but are more prevalent in the Region.

Three major tectonic areas contribute to earthquake activity in Kansas. Those are:

1) The Nemaha Ridge/Humboldt Fault (NRHF).
2) The Mid–Continent Rift.
3) The Central Kansas Uplift. The three provide Kansas with the potential for a lot of geologic interaction. Of those three, the NRHF area has the 2nd most potential for earthquake damage in the Midwest. Only the New Madrid fault in southeast Missouri/southwest Illinois has a higher potential for activity and damage.

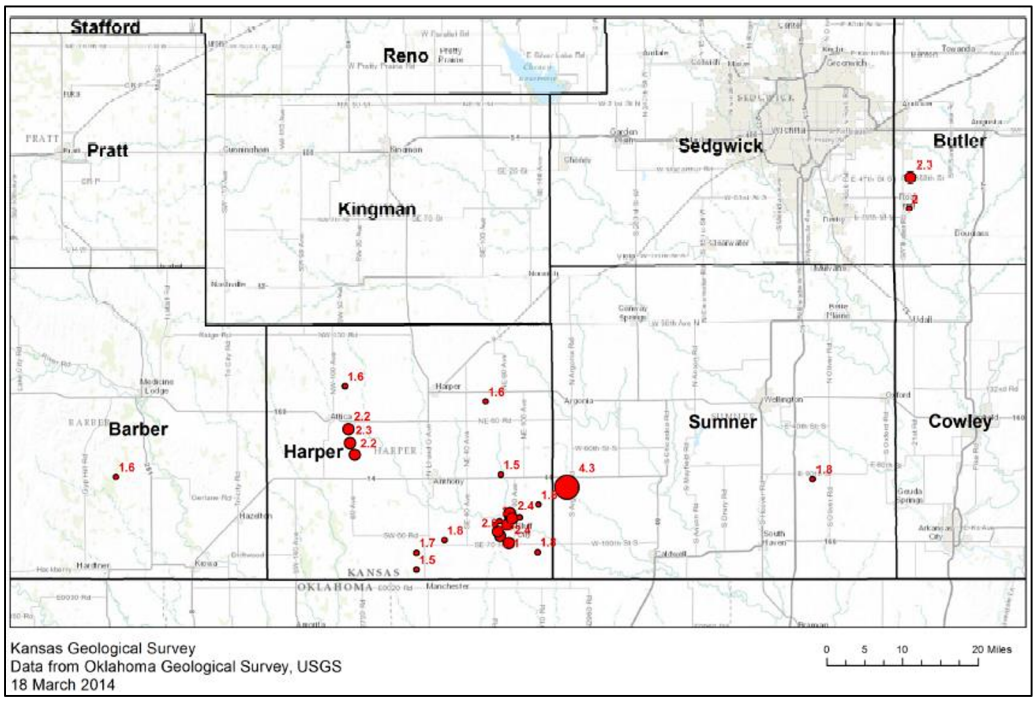
Map 18 - Tectonic areas in Kansas



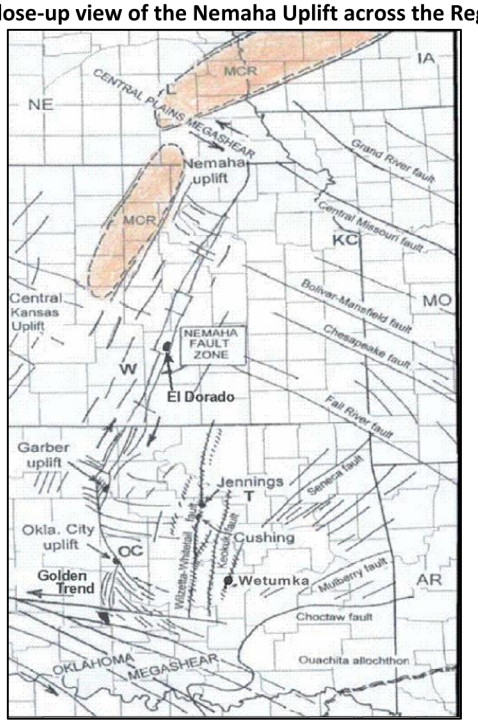
Other smaller and less well-known faults can contribute to the geographic instability of the region, and have the potential to cause minor earthquakes.

To transportation structure in particular, such as pipelines, oil and gas wells, rail lines and road transportation networks, and other critical infrastructure like major dams and power plants, even a low-probability earthquake has to be taken seriously.

Map 19: Earthquake activity, South Central KS, 2013 (Preliminary)



Map 20 Close-up view of the Nemaha Uplift across the Region



Fracking Link to Induced Seismic Activity

A lengthy debate has ensued across the nation, and the world, among industry representatives, regulatory agencies and scientists about defining a link between fracking activities as the cause of induced seismic activity.

> Induced or Triggered Seismic Activity is defined as seismic events attributable to human activities.
> *National Research Council, 2012*

In early 2014, the KGS provided testimony[28] to the Kansas Legislature about the issue of induced seismic activity in Kansas. In that testimony, the KGS indicated that "it has long been known that earthquakes can be triggered by fluid injection." The testimony quoted the USGS, "We know that the Earth's crust is pervasively fractured at depth by faults. These faults can sustain high stresses without slipping because natural 'tectonic' stress and the weight of the overlying rock pushes the opposing sides of the fault together, increasing the frictional resistance to fault slip. The injected wastewater in deep wells can counteract the frictional forces on faults, causing an earthquake" (D. J. Hayes, 2012).

Are Seismicity Rate Changes in the Midcontinent Natural or Manmade?
ELLSWORTH, W. L., US Geological Survey, Menlo Park, CA; HICKMAN, S. H., US Geological Survey, Menlo Park, CA; LLEONS, A. L., US Geological Survey, Menlo Park, CA; MCGARR, A., US Geological Survey, Menlo Park, CA; MICHAEL, A. J., US Geological Survey, Menlo Park, CA; RUBINSTEIN, J. L., US Geological Survey, Menlo Park, CA
A remarkable increase in the rate of M 3 and greater earthquakes is currently in progress in the US midcontinent. The average number of M >= 3 earthquakes/year increased starting in 2001, culminating in a six-fold increase over 20th century levels in 2011. Is this increase natural or manmade? To address this question, we take a regional approach to explore changes in the rate of earthquake occurrence in the midcontinent (defined here as 85° to 108° West, 25° to 50° North) using the USGS Preliminary Determination of Epicenters and National Seismic Hazard Map catalogs. These catalogs appear to be complete for M >= 3 since 1970. From 1970 through 2000, the rate of M >= 3 events averaged 21 +- 7.6/year in the entire region. This rate increased to 29 +- 3.5 from 2001 through 2008. In 2009, 2010 and 2011, 50, 87 and 134 events occurred, respectively. The modest increase that began in 2001 is due to increased seismicity in the coal bed methane field of the Raton Basin along the Colorado-New Mexico border west of Trinidad, CO. The acceleration in activity that began in 2009 appears to involve a combination of source regions of oil and gas production, including the Guy, Arkansas region, and in central and southern Oklahoma. Horton, et al. (2012) provided strong evidence linking the Guy, AR activity to deep waste water injection wells. In Oklahoma, the rate of M >= 3 events abruptly increased in 2009 from 1.2/year in the previous half-century to over 25/year. This rate increase is exclusive of the November 2011 M 5.6 earthquake and its aftershocks. A naturally-occurring rate change of this magnitude is unprecedented outside of volcanic settings or in the absence of a main shock, of which there were neither in this region. While the seismicity rate changes described here are almost certainly manmade, it remains to be determined how they are related to either changes in extraction methodologies or the rate of oil and gas production.
Source: SSA 2012 Conference, online at http://www2.seismosoc.org

The testimony alludes to the possibility that induced seismic activity, related to industrial production (Class III well) occurred in Kansas in 1989. However, the testimony falls short of asserting a direct link between recent seismic activity in Kansas and the fraking practices in the area. Instead, the KGS indicates a need for further studies, explaining that "significantly better background information about the rate and location of seismic activity of magnitudes 3 and lower would help us better understand which earthquakes are natural and which are manmade." In addition, the agency noted that its monitoring capabilities have been significantly reduced, because federally the funded seismic network it operated until 1989, no longer exists. In lieu of collecting its own data, the KGS relies on the USGS, who operates only two seismic stations in Kansas, and on the Oklahoma Geological Survey.

The KGS Jan 21 testimony closely resembles the agency's 2013 statement on the same issue, but leaves out one item the earlier statement made clear: "The conclusion is that there is no evidence of felt earthquake activity related to hydraulic fracturing in Kansas. Some induced seismicity in the midcontinent may be related to waste fluid disposal.

[28] Testimony on Induced Seismicity, Rex Buchanan, Interim Director KGS, Jan 21, 2014.

There has been one documented instance of a possible association between disposal wells and low-to moderate of level seismic activity in Kansas."[29]

On both documents, the KGS makes reference to KDHE's position on induced seismic activities: "The KDHE has noted that gravity injection allows only the amount of fluid to be injected that the formation can naturally accept, thereby limiting pressure build-up in the disposal formation and reducing the potential of rock movement at a fault. Any pressure increases that do occur from injection are limited to the vicinity of the well, which also decreases the likelihood that injection fluids would travel far enough from the well to encounter a fault and cause earthquakes."

In the meantime, other states have taken a preemptive approach to induced seismic activities, after asserting a clear connection to hydraulic fracturing. See article below.

> ***COLUMBUS.*** *State regulators for the first time have linked earthquake activity in eastern Ohio to hydraulic fracturing, confirming the suspicions of activists pushing unsuccessfully for a drilling ban.*
>
> *State Oil & Gas Chief Rick Simmers told The Associated Press on Friday that the state has halted drilling indefinitely at the site near Youngstown where five minor tremors occurred in March following investigative findings of a probable link to fracking.*
>
> *A deep-injection well for fracking wastewater was tied to earthquakes in the region in 2012.*
>
> *Simmers says Ohio will require sensitive seismic monitoring as a condition of all new drilling permits within three miles of a known fault or existing seismic activity of 2.0 or greater. Drilling will pause for evaluation with any tremor of 1.0 magnitude and will be halted if a link is found.*
>
> Ohio regulators link seismic activity to fracking
> Cincinati.com, April 11, 2014,

On July 24, 2014, a building collapsed in the City of Kingman. No one was in the building when the collapse happened, and no one was hurt. No surroundings buildings were damaged. However, the debris collapsed onto a major traffic way in the area – Main Street (Hwy 14) is transited by HazMat vehicles, and was included in the field data collection effort of this R-CFS. Two field data counts were conducted along this highway.

The block was closed due to safety concerns. In a local news article, the Kingman City Manager Emily Graf said, "We got it barricaded right away. Our top concern was the safety of our citizens and it will stay up until we have time to access the situation and to make sure that no one will be in danger. "[30]



Picture 1: Building collapse, City of Kingman

[29] "Hydraulic Fracturing and Induced Seismicity in Kansas", 3 April 2013, Kansas Geological Survey, online at http://www.kcc.state.ks.us/conservation/kgs_induced_seismicity_040313.pdf, accessed July 25, 2014.
[30] News article "UPDATE: Building collapses in downtown Kingman", KAKE.com online at http://www.kake.com/home/headlines/Building-collapses-in-Kingman-268509712.html accessed July 28, 2014.

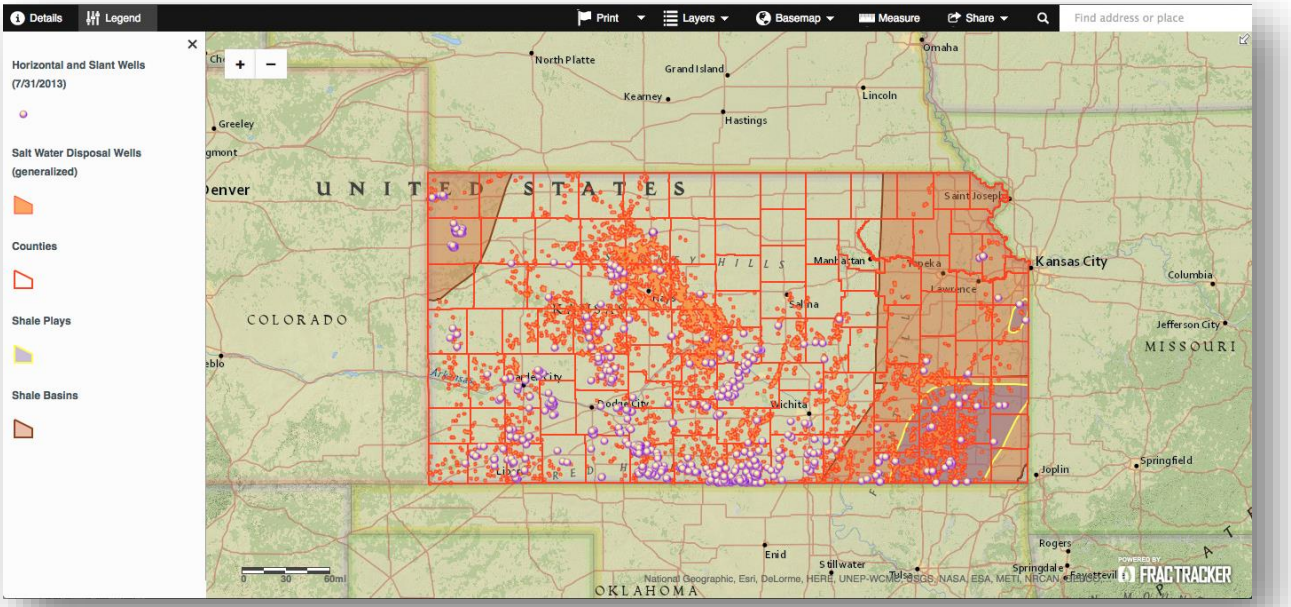
Residents asked the city to inspect the conditions of other old downtown buildings. The week before, an earthquake had been felt in that location, and responders question whether or not it had impacted the aging structure sufficiently to cause it collapse. The Kingman County Emergency Manager contacted the KGS, who was unaware of the recent earthquake activity in the area. The last data available to them was 2012.

The greater implication of this issue is that damage to visible structures in a downtown area are noted by media and sometimes followed up on by emergency managers, depending on the scope of the event. Currently, there is no formal requirement for reporting seismic activity damage to structures, to aid the KGS in monitoring activities.
In addition, damage to transportation infrastructure is less obvious and may go unchecked until an incident occurs.

Kansas fracking facts:

- Current Oil Production:
  - 35.7 m. Barrels annually.
  - 97,800 barrels per day.
- Kansas ranks 8th among the nation's 31 oil-producing states.
- Oil and natural gas is the Kansas' second largest industry, generating more than $6 billion each year and over 28,000 jobs.
- Over $360 million annual revenue from oil and natural gas production funds roads, schools, and other public projects.

Map 21: Fracking sites in Kansas[31]



[31] Map of Kansas, online at Fracktracker.org accessed June 24, 2014, 21:54 hrs.
http://maps.fractracker.org/latest/?appid=f00c8b4d2f0a448b8f4646fadf35b21f

HYDRAULIC FRACTURING AND INDUCED SEISMICITY IN KANSAS

For some time the public has asked questions about seismic activity related to hydraulic fracturing and other oil-field related activities. In particular, there is concern that the energy that goes into the subsurface during hydraulic fracturing is sufficient to cause felt earthquakes. The following is a response to those questions.

1) Seismic activity that is related to human activities is generally referred to as "induced seismicity" or "triggered seismicity." Induced seismicity is defined as "seismic events attributable to human activities" (National Research Council, 2012). The term "triggered seismicity" is also used to describe situations in which human activities "could potentially 'trigger' large and potentially damaging earthquakes" (Shemeta et al., 2012). The following discussion uses only the term "induced seismicity" to refer to seismic activity in which human activity plays a role.

2) Because it uses energy to fracture rocks to release oil or natural gas, hydraulic fracturing does create microseismic events (of a magnitude less than 2.0). Felt earthquake activity (generally greater than a magnitude 3.0) resulting from hydraulic fracturing has been confirmed from only one location in the world (National Research Council, 2012). In the midcontinent, the U.S. Geological Survey (USGS) has stated that there is "no evidence to suggest that hydraulic fracturing itself is the cause of the increased rate of earthquakes" (Hayes, 2012). As noted by Stanford University geophysicist Mark Zoback, "the pressurization during hydraulic fracturing affects only limited volumes of rock (typically several hundred meters in extent) and pressurization typically lasts only a few hours" (Zoback, 2012).

3) It has long been known that earthquakes can be triggered by fluid injection. As Zoback noted, "The first well-studied cases were earthquakes triggered by waste disposal at the Rocky Mountain arsenal near Denver in the early 1960s and by water injection at the Rangely oilfield in western Colorado in the late 60s and early 70s" (Zoback, 2012). The USGS and other studies have found that "at some locations the increase in seismicity coincides with the injection of wastewater in deep disposal wells" (Hayes, 2012). As the USGS notes, "We know that the Earth's crust is pervasively fractured at depth by faults. These faults can sustain high stresses without slipping because natural 'tectonic' stress and the weight of the overlying rock pushes the opposing sides of the fault together, increasing the frictional resistance to fault slip. The injected wastewater in deep wells can counteract the frictional forces on faults, causing an earthquake" (Hayes, 2012). In other words, fluids injected near a fault can, in effect, act as a friction-reducing agent, allowing a fault to move.

4) Significant amounts of saltwater are produced along with oil and natural gas in the United States, including Kansas. This saltwater is generally injected back into the deep surface. Nationally, the USGS estimates that there are 150,000 injection wells (called Class II wells by the U.S. Environmental Protection Agency), of which 40,000 are used to dispose of the waste fluids from oil and gas operations. Hydraulic fracturing also produces non-potable water that requires disposal under State permits. There are approximately 16,000 Class II wells in Kansas. They are regulated by the Kansas Corporation Commission (KCC). There are 47 Class I disposal wells in Kansas, used to dispose of hazardous or non-hazardous industrial waste. These are regulated by the Kansas Department of Health and Environment (KDHE). In general, waste fluids from oil and gas production in Kansas are injected back into deep subsurface formations that take those fluids "under gravity." That is, because of the ability of these formations to accept substantial amounts of fluid, fluids are not injected under additional pressure, but simply allowed to flow into these rock formations under the force of gravity. The KDHE has noted that gravity injection allows only the amount of fluid to be injected that the formation can naturally accept, thereby limiting pressure build-up in the disposal formation and reducing the potential of rock movement at a fault. Any pressure increases that do occur from injection are limited to the vicinity of the well, which also decreases the likelihood that injection fluids would travel far enough from the well to encounter a fault and cause earthquakes.

5) An example of induced seismicity, related to a Class II well, may have occurred in Kansas in 1989. A series of small earthquakes, strong enough to feel, occurred in the Marcotte oil field in Rooks County. Studies of that seismicity noted that "one disposal well lies directly above the western, most active part of the zone of seismicity" (Armbruster et al., 1989). That well may also have been in proximity to a deeply buried fault zone. "The coincidence of a disposal well, recent pore pressure history, extended swarmy nature of the seismicity, and low level of prior earthquake occurrence in this area allow for the possibility that this seismicity could have been induced." The authors also concluded that "comparing the size of this zone of seismicity with others in the Eastern U.S. suggests that it would not generate events of magnitude greater than (about) 5" (Armbruster et al., 1989).

The conclusion is that there is no evidence of felt earthquake activity related to hydraulic fracturing in Kansas. Some induced seismicity in the midcontinent may be related to waste fluid disposal. There has been one documented instance of a possible association between disposal wells and low-level seismic activity in Kansas.

Rex Buchanan, Interim Director, April 2013

Fracking regulations in Kansas

The KCC has issued state regulations to protect surface, ground water, and correlative rights. The Commission's Conservation Division manages enforcement with a staff of 85 full-time employees (geologists, engineers, technical staff, attorneys, and field inspectors). The enforcement actions include: witnessing, inspecting, and permitting drilling, well completion, and production.

The regulations enacted by the Kansas Corporation Commission include:

- Surface pipe regulations.
- Production casing regulations.
- Well-cementing requirements.
- Intent-to-drill process.
- Well spacing requirements.
- Pit permitting process.
- Well completion reporting requirements.

KCC offers fracking regulatory information on its website at http://www.kcc.state.ks.us/regs/index.htm. A recent report on Kansas' fracking regulations was published by the Center for Energy Economics and Policy[32]. The links for state regulations at the frackfocus.org site do not work, although they are referenced as a data source in news articles as recent as the October 2013 article of the Capitol Journal[33].

Ice Storms

According to the NCDC data, 9 ice storm events were reported between 03/01/2010 and 03/31/2014 (1492 days).

Table 16: Ice storm events reported in the Region

Number of County/Zone areas affected:	9
Number of Days with Event:	1
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	0
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

Landslides

According to the NCDC[34] data, 0 landslide events were reported between 03/01/2010 and 03/31/2014 (1492 days).

Sleet

[32] The State of State Shale Gas Regulation: State-by-State Tables, Center for Energy Economics and Policy, 6/21/2013 (Regulatory data current as of 3/1/2013, accessed online at http://www.rff.org, on June 25, 2014.

[33] New fracking regulations spell out what companies must disclose. Kansas Corporation Commission rules allow trade secrets exemption. October 24, 2013. Capital Journal online at http://cjonline.com/news/business/2013-10-24/new-fracking-regulations-spell-out-what-companies-must-disclose. Accessed June 25, 2014.

[34] NCDC, Blizzard Reports, SC Region, online at http://www.ncdc.noaa.gov/, Accessed July 1, 2014

According to the NCDC35 data, 0 sleet events were reported between 03/01/2010 and 03/31/2014 (1492 days). This does not mean that sleet is not a risk in the Planning Region. It only means that "sleet events" per say were not reported to the NCDC.

Tornadoes

According to the NCDC[36] data, 104 tornadic events were reported between 03/01/2010 and 03/31/2014 (1492 days).

Table 17: Tornadoes reported in the Planning Region

Number of County/Zone areas affected:	18
Number of Days with Event:	20
Number of Days with Event and Death:	1
Number of Days with Event and Death or Injury:	2
Number of Days with Event and Property Damage:	7
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

Wildfire

According to the NCDC[37] data, 3 wildfire events were reported between 03/01/2010 and 03/31/2014 (1492 days).

Table 18: Wildfire events reported for the Region

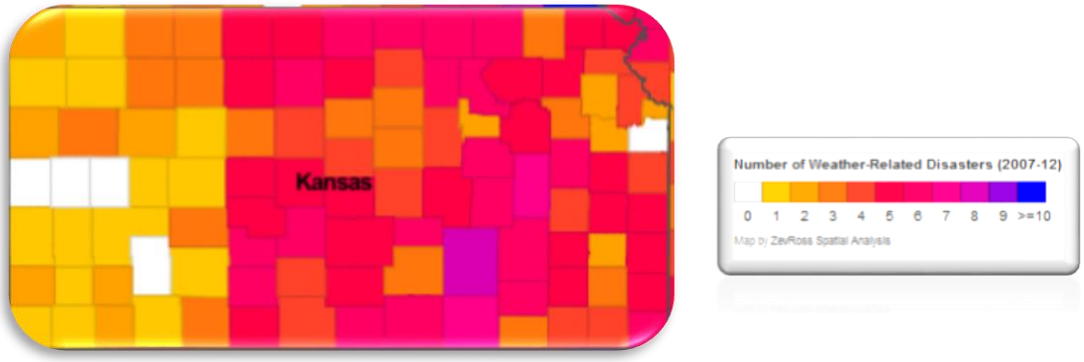
Number of County/Zone areas affected:	3
Number of Days with Event:	3
Number of Days with Event and Death:	0
Number of Days with Event and Death or Injury:	0
Number of Days with Event and Property Damage:	1
Number of Days with Event and Crop Damage:	0
Number of Event Types reported:	1

[35]NCDC, Blizzard Reports, SC Region, online at http://www.ncdc.noaa.gov/, Accessed July 1, 2014
[36]NCDC, Blizzard Reports, SC Region, online at http://www.ncdc.noaa.gov/, Accessed July 1, 2014
[37]NCDC, Blizzard Reports, SC Region, online at http://www.ncdc.noaa.gov/, Accessed July 1, 2014

History of Disasters in the Planning Area

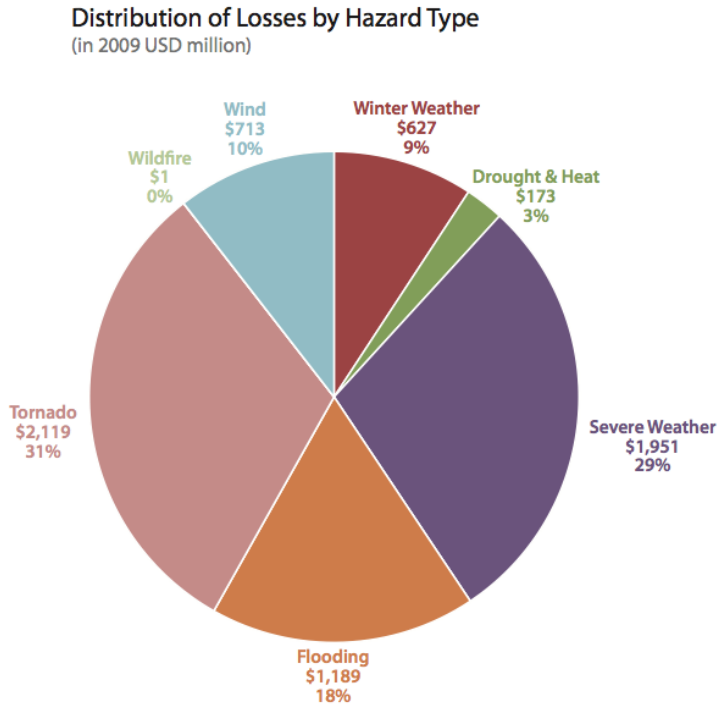
Federal Declared Disasters in the State and Planning Area[38]

Map 22: Map of weather-related disasters since 2007.



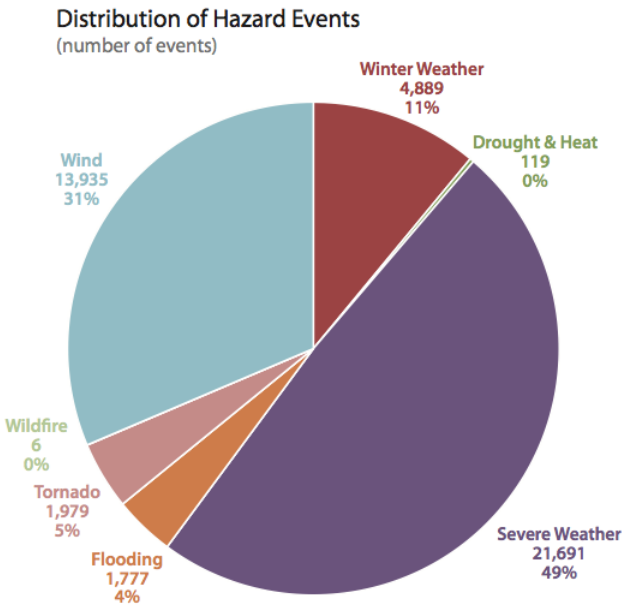
Overall Impact of Hazards in Kansas

Figure 14: Estimated $ Losses 1960-2009

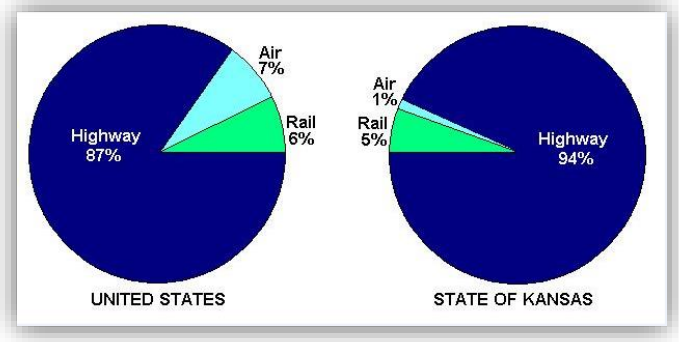


[38] Source: Environment America, Research and Policy Center, online at http://www.environmentamericacenter.org/page/ame/map-recent-weather-related-disasters-kansas, accessed July 23, 2014

Figure 15: Cause associated with estimated losses 1960-2009



Technological Incident History – Kansas compared to the United States



Incident Data Collected from Federal Sources – by Transportation Mode

The table below shows a Regional profile of HazMat incidents reported to the USDOT[39] from Jan 1, 2010 to July 15, 2014. The search resulted in 1310 records for Kansas. In the region, the number of records is 209.

Table 19: Data from accidents reported to the PHMSA database
https://hazmatonline.phmsa.dot.gov/IncidentReportsSearch

Number of Counties	11 of 19
Total incidents reported	209

[39] Source: Hazmat Intelligence Portal, U.S. Department of Transportation. Data as of 7/22/2014.

Transportation mode	Air: 11	Highway: 191	Rail: 8	Unreported: 1
Spill	No: 14	Yes: 195		
Fatalities	1			
Injuries	5			
Evacuations	113			

Table 20: Freight data for Kansas

Shipments Within, From, and To U.S. States - Value by Domestic Mode: 2007, and 2012

Data from the Freight Analysis Framework Version 3.5

Unit of measure is million U.S. dollars (constant 2007$)

From: from all other states (not including Within)

To: to all other states (not including Within)

			Within		From		To	
State	Trade	Mode	2007	2012	2007	2012	2007	2012
Kansas	Domestic	Truck	$71,168	78,545	$63,733	67,874	$55,179	57,418
		Rail	$459	479	$6,625	6,944	$3,465	3,772
		Water			$16	18	$50	56
		Air (include truck-air)	$12	14	$9,255	9,690	$1,331	1,426
		Multiple modes & mail	$2,144	2,365	$14,251	15,834	$14,564	15,258
		Pipeline	$3,561	3,851	$4,298	4,759	$6,935	7,655
		Other and unknown	$2,400	2,641	$1,789	1,961	$995	1,081
	Total		$79,744	87,894	$99,967	107,078	$82,519	86,666
	Imports	Truck	$184	161			$3,974	3,971
		Rail					$487	539
		Air (include truck-air)					$253	290
		Multiple modes & mail					$401	408
		Pipeline					$1,015	939
		Other and unknown	$2	2			$158	166
	Total		$187	163			$6,288	6,314
	Exports	Truck			$3,099	3,627		
		Rail			$2,321	2,911		
		Water			$102	129		
		Air (include truck-air)			$266	258		
		Multiple modes & mail			$1,009	1,294		
		Other and unknown	$121	123	$542	583	$0	0
	Total		$121	123	$7,339	8,802	$0	0

Table 21: Kansas Roadside Inspections, HazMat Violations (2013 - Calendar)

Analysis & Information
Federal Motor Carrier Safety Administration

Data Source: FMCSA Motor Carrier Management Information System (MCMIS) data snapshot as of 5/30/2014, including current year-to-date information for 2014.

The data presented below are accurate as of the date listed, but are subject to update as new or additional information may be reported to MCMIS following the snapshot date.

Report Filters:

	Report Domicile:	United States
	Vehicle Type:	All Vehicles

Total number of Hazmat Inspections in CY 2013: 3,873

Total number of Hazmat Violations in CY 2013: 651

Total number of Hazmat Out-of-Service (OOS) Violations in CY 2013: 203

Violation Code	Violation Description	Inspections	Violations	OOS Violations
177.834A	Package Not Secure In Vehicle	112	116	114
177.817A	No Shipping Papers (Carrier)	73	81	52
177.817E	Shipping Paper Accessibility	42	42	0

Analysis & Information Federal Motor Carrier Safety Administration				
107.620B	No Copy Of Us Dot Hazardous Materials Registration Number	39	39	0
172.516C6	Placard Damaged, Deteriorated, Or Obscured	35	35	0
177.823A	No Placards/Markings When Required	27	32	9
172.202B	Failing To Enter Basic Description Of Hm In Proper Sequence	29	29	0
172.600C	Emergency Response (Er) Information Not Available	28	28	0
172.504A	Vehicle Not Placarded As Required	22	22	10
177.801	Accepting/Transporting Hm Not Prepared Properly	12	20	6
172.400A	Package/Containment Not Labeled As Required	17	18	0
172.602A	Emergency Response Information Missing	15	15	0
172.602C1	Maintenance/Accessibility Of Emergency Response Information	15	15	0
180.415B	Cargo Tank Test Or Inspection Markings - Hm	14	14	0
172.502A1	Failing To Provide Carrier Required Placards	14	14	2
172.202A5	Failing To Enter Total Qty. Of Hm On Shipping Paper	12	12	0
107.601	Failing To Register With Phmsa Prior To Transporting Hazardous Materials Requiring Hm Registration.	10	10	0
172.201A1	Failing To Enter Hm Descrip. On Ship. Paper In Manner Required	9	9	0
172.200A	Offering A Hm Without Preparing A Shipping Paper. (None At All)	6	6	2
172.201D	Failing To Enter Emergency Response Phone # On Shipping Paper	5	5	0
172.202A4	Failing To Enter Packing Group On Shipping Paper	5	5	0
172.202A1	Failing To Enter Proper Shipping Name On Shipping Paper	5	5	0
172.516C1	Placard Not Securely Affixed Or Attached	5	5	0
172.502A2	Placard/Device Could Be Confused/Conflict With Dot Placard	5	5	0
171.2A	Failure To Comply With Hm Regulations	3	4	0
172.516C5	Placard Not Reading Horizontally	4	4	0
173.24B1	Release Of Hm From Package	3	4	4
173.24F1	Closures For Pkgs Must Not Be Open Or Leaking	3	3	2
172.203K	Failing To Enter The Technical Name In Assoc. With Description	3	3	0
172.304A1	Package Marking Not Durable, English, Or Print	2	3	0
397.13	Smoking Within 25 Feet Of Hm Vehicle	3	3	0
178.3455D	Dot406/407/412 Manhole Securement	2	2	0
172.203C2	Failing To Enter 'Rq' On Shipping Paper For Hazardous Substance	2	2	0
172.202A2	Failing To Enter Identification Number On Shipping Paper	2	2	0
172.406A1	Label Placement Not As Required	2	2	0
178.34010B	Mc306/307/312 Metal Certification Plate Missing	2	2	0
172.301A1	No Proper Shipping Name And/Or Id# Marking On Non-Bulk	2	2	0
172.516A	Placard Not Visible From Direction It Faces	2	2	0
177.817B	Shipper Certification Missing (When Required)	2	2	0
397.3	State/Local Laws Ordinances Regulations	2	2	0
172.201A3	Using An Unauthorized Code/Abbreviation On An Hm Shipping Paper	2	2	0
172.202A3	Wrong Or No Id Number	2	2	0
171.2G	Cargo Tank Does Not Comply With Hm Regulations	1	1	0
173.33A	Cargo Tank General Requirements	1	1	0
178.3455E	Dot406/407/412 Manhole Marking	1	1	0
178.3458A5	Dot406/407/412 Minimum Road Clearance	1	1	0

Analysis & Information Federal Motor Carrier Safety Administration				
178.3458C	Dot406/407/412 Rollover Damage Protection	1	1	0
178.34514C	Dot406/407/412 Specification Plate	1	1	0
397.5C	Failing To Attend Hm Vehicle On Public Street/Highway/Shoulder	1	1	0
172.201A2	Failing To Enter Hm Description Legibly In English	1	1	0
173.24B	Filed To Meet General Package Requirements	1	1	1
397.15	Hm Vehicle Fueling Violation	1	1	0
178.3379C	Marking Inlets/Outlets Mc331	1	1	0
172.304A4	Marking Not Away From Other Marking	1	1	0
178.3415A2	Mc306 Remote Control Shutoff	1	1	0
178.3408D2	Mc306/307/312 Minimum Road Clearance	1	1	0
172.302A	No Id Number (Portable And Cargo Tank)	1	1	1
172.324	Non-Bulk Hazardous Substance Not Marked	1	1	0
177.834B	Pkg Not Loaded According To Orientation Marks	1	1	0
172.519	Placard Does Not Meet Specifications	1	1	0
172.506A1	Placards Not Affixed To Vehicle	1	1	0
172.303A	Prohibited Hm Marking On Package	1	1	0
172.312B	Prohibited Use Of Orientation Arrows	1	1	0
172.332	Required Id Markings Displayed	1	1	0
173.24C	Unauthorized Packaging	1	1	0

National Response Center (NRC)

The National Response Center (NRC) is the federal government's national communications center, which is staffed 24 hours a day by U.S. Coast Guard officers and marine science technicians. The primary function of the NRC is to serve as the sole national point of contact for reporting (all oil, gas, and natural gas) discharges into the environment, which trigger federal notification requirements under several laws.

EMFusion staff reviewed that information and extracted the data for the 19 counties in the planning area of this study. The following table shows 331 events from the South Central Region reported to the NRC since January 1, 2013 to July 23, 2014[40].

County	# of Incidents
Barber	0
Barton	1
Butler	184
Comanche	0
Cowley	2
Edwards	0
Harvey	0
Harper	0
Kingman	0
Kiowa	0
Marion	0
McPherson	59

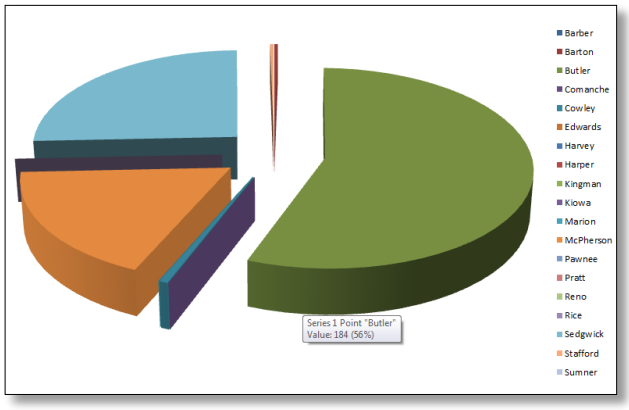


Figure 16: HazMat incidents reported for the Region, NRC

[40] Source: National Response Center, online at Http://cgmix.uscg.mil/NRC/ accessed on July 23, 2014.

Pawnee	0
Pratt	0
Reno	0
Rice	0
Sedgwick	84
Stafford	1
Sumner	0
Regional Total:	331

Analysis of hazmat spill reporting

Based upon the inconsistency in reporting form the counties and the reported data not matching in the NRC, Form A's and the interactive map it would be extremely difficult for emergency managers to do an accurate assessment of the potential risk for their communities.

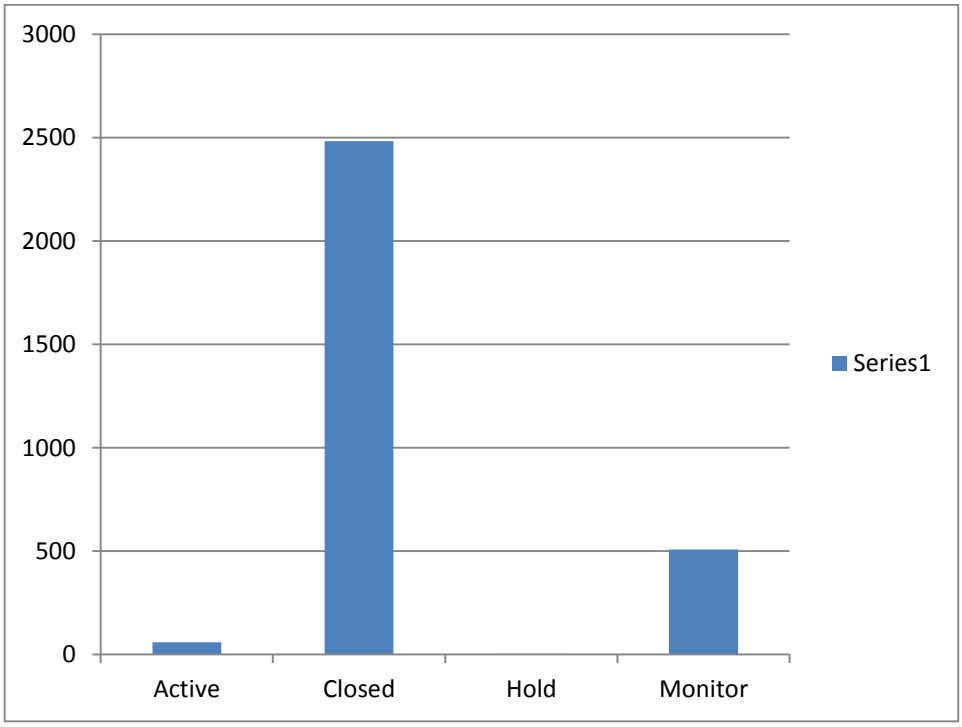
In an interview with KDHE program staff, the research team was informed of concerns about an apparent lack of monitoring and reporting on leased oil wells on the part of the owners/industry and regulatory authorities. This could be attributed to the potential of penalties and associated costs that could be incurred if the reporting criteria are followed.

Spill Data – Above Ground and Underground Storage Tanks

The following data is a Regional composite of the data provided by KDHE. The reporting time is Sept 28, 1978 to May 22, 2014.

Table 22 Regional incidents at licensed above and underground tanks

Planning Region	
Total incidents	3055
Active	60
Closed	2483
Hold	4
Monitor	508



2014 reported Spills

The NRC reports that 22 spills we recorded from the 19 counties so far this year. Of those 22 reports 7 were from Butler County, 3 from McPherson County and 12 from Sedgwick County.

KDEM provided 49 spill reports for 2014.

- Barber 1
- Barton 2
- Butler 9
- Cowley 6
- Kingman 2
- Kiowa 3
- Marion 4
- McPherson 7
- Pratt 6
- Rice 3
- Sedgwick 4
- Stafford 2

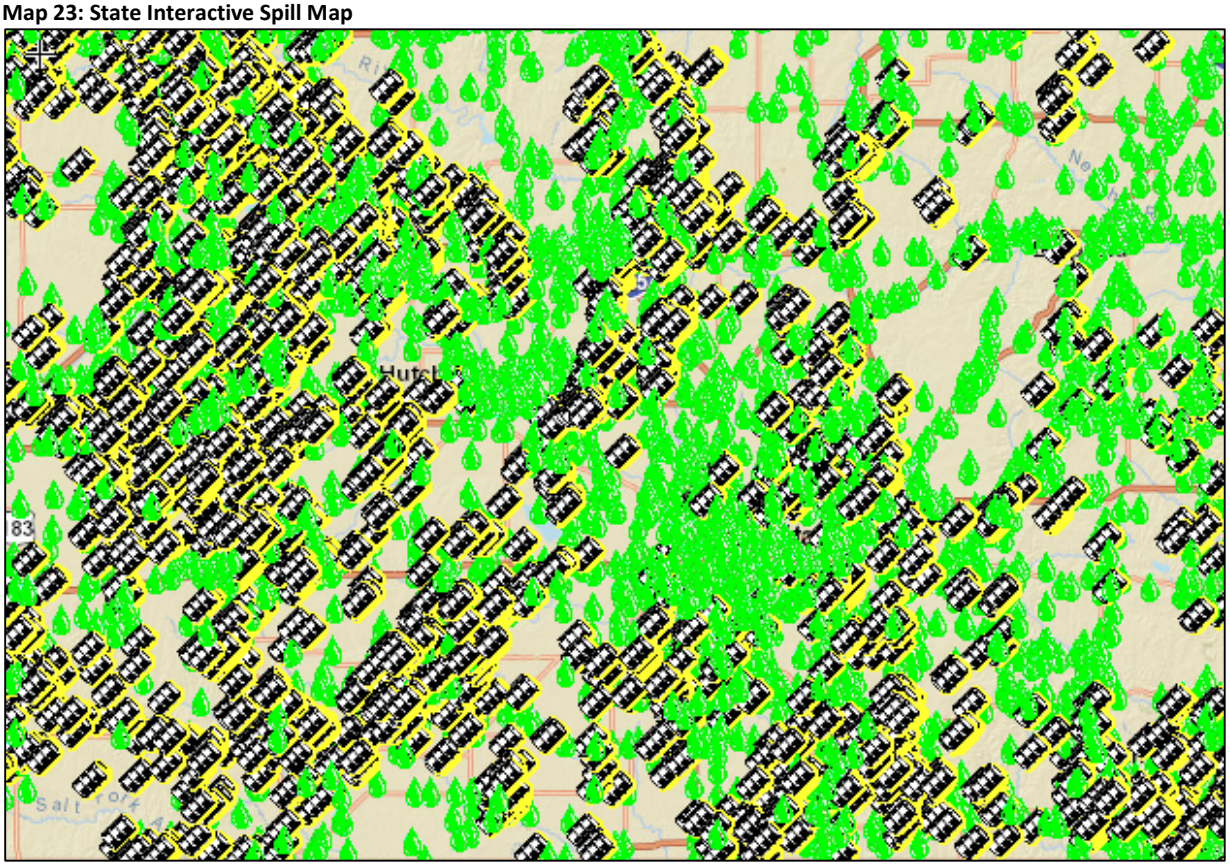
The following counties filled no Form A's for 2014 to date.

- Comanche
- Edwards
- Harper
- Harvey
- Pawnee
- Reno
- Sumner

During the data collection process, EMFusion staff accessed the state's Interactive Spill Map[41], a joint initiative of KDHE and KCC. The usability of the map was a concern of the research team, because it is populated with a continuous listing of spills. The search features are limited: the user is unable to search by year, material type or quantity of spill. A screenshot of the Map 23: State Interactive Spill Map, is below. The image is quite busy, and resulted of little value in the process. The concern about its usability for local planners is validated by that image.

[41] The Interactive Spill Map is accessible online via KDHE's website, at http://maps.kdhe.state.ks.us/ksberspill/.

Map 23: State Interactive Spill Map



Aviation Accidents in the Region[42]

The National Transportation Safety Board (NTSB) Aviation Accident Database shows 104 aircraft accidents in the planning area, between September 2000 and April 2014 resulting in 28 fatalities.

[42] Source: National Transportation Safety Board.

County	# Incidents	Tot Fatalities
Barber County	0	0
Barton County	5	5
Butler County	24	3
Comanche County	2	0
Cowley County	6	3
Edwards County	0	0
Harper County	1	0
Harvey County	8	0
Kingman County	3	0
Kiowa County	1	0
Marion County	1	1
McPherson County	1	1
Pawnee County	2	2
Pratt County	2	0
Reno County	9	1
Rice County	5	1
Sedgwick County	24	8
Stafford County	2	1
Sumner County	8	2
	104	28

Further research identified a different aviation incident database: The FAA Accident/Incident Data System (AIDS) database contains incident data records for all categories of civil aviation. **Incidents are events that do not meet the aircraft damage or personal injury thresholds contained in the National Transportation Safety Board (NTSB) definition of an accident** (e.g. the database contains reports of collisions between aircraft and birds while on approach to or departure from an airport. While such a collision may not have resulted in sufficient aircraft damage to reach the damage threshold of an NTSB accident, the fact that the collision occurred is valuable safety information). For the purpose of this R-CFS, such data is important because it highlights the overall vulnerability of the air transportation system in the Region.

The FAA issues a separate report for each aircraft involved in an aviation incident. The FAA Accident/Incident Data System (AIDS) database contains incidents that occurred between 1978 and the present. The current system is being revised to reflect the full narrative on all incident reports with an active event date of January 1, 1995 or greater. This will apply to approximately 10,000 reports.

According to the AIDS database, there were no civil aviation incidents in one county: Barber. The data shows 1 incident in Edwards and 2 in Comanche counties. Those last two counties would have no aviation incident data to show had the study excluded the AIDS system.

Table 23: Regional incidents reported to the AIDS Dabase

Incident area	# of incidents
Total civil aviation incidents reported in the AIDS database for the region	630
Barber	NA
Barton	9
Butler	65
Comanche	1
Cowley	16
Edwards	2
Harper	2
Harvey	19
Kingman	3
Kiowa	2
Marion	4
McPherson	12
Pawnee	2
Pratt	5
Reno	49
Rice	4
Sedgwick	425
Sedgwick/Sumner	2
Stafford	2
Sumner	6

Local Official Surveys

Emergency Management Agencies

All Emergency managers in the participating counties were sent surveys to determine the method and systems used for notification of local agencies when a spill has occurred

Fire Districts

Fire Chiefs in the counties were sent surveys to inquire their worst possible scenarios (WPS) involving HazMat spills and their capability and training to respond to these events.

County Clerks

County Clerks in each of the 19 counties were sent surveys to determine their involvement in record keeping of events and reimbursement requests from spillers.

Local Emergency Planning Commissions

This project included a survey of LEPC members for all participating counties. The intent of the survey was to define data management, delegation of requirements, and more.

The U.S. EPA has conducted two national surveys of LEPCs, one in 1999 and one in 2008[43]. The 2008 report highlights the following findings:

- 33.3% of the respondents listed a dedicated membership is the greatest single factor contributing to an LEPC's success
- 15.9% report that regularly scheduled meetings contribute most to their success as an organization.
- 64.9% of responding LEPCs report that the LEPC on which they serve has had a positive impact on chemical safety in their community.
- 90% of the responding LEPCs met at least once in the past year — three quarters of those LEPCs met at least quarterly.
- Close to 60% of responding LEPCs reviewed and updated their emergency plan in the past 12 months.
- Three out of four responding LEPCs indicate that the majority of their membership is familiar with their emergency response plan.
- Over 75% of responding LEPCs exercised their emergency response plan in the past year with nearly seven of ten conducting full-scale exercises.
- The most active LEPCs are those that had at least one accident in the past five years.
- While three out of four LEPCs did not receive any technical assistance or guidance from the Federal government in the past five years, of those that did, 58.6% report that the assistance came from EPA. Close to 80% of those LEPCs indicate that EPA's support plays a significant role in guiding their LEPC activity.
- Nearly 70% of responding LEPCs that receive EPCRA Tier I and Tier II data receive it in the paper format.
- Over half of responding LEPCs use CAMEO.
- Two out of five responding LEPCs have an operating budget of which 35.9% is direct funding.
- Over half of responding LEPCs receive in-kind funding with the most frequent form being meeting space.
- Since the last LEPC survey in 1999, the percentage of LEPCs that incorporate homeland security into their emergency response plans nearly doubled (from 40.3% in 1999 to 77.5% today).
- Since 9/11, nearly half of responding LEPCs reported increasing their overall activity level. Only 4.0% said the overall activity level of their LEPC decreased since the events of 9/11.

Public Works / Road and Bridge Departments

County Public Works were sent surveys to determine their role in hazmat spills as well as to see if they considered themselves as first responders.

Regional Stakeholders

[43] The 2008 Nationwide Survey of Local Emergency Planning Committees, U.S. EPA, online at http://www2.epa.gov/sites/production/files/2013-08/documents/2008_lepcsurv.pdf, accessed July 7, 2014

Regional HazMat Teams

There are 11 Regional HazMat Teams in Kansas, which exist through contracts between individual local fire departments and the OSFM. Local fire departments provide team members and regional response outside their local jurisdiction and the OSFM provides training and equipment at no cost to the department. The OSFM reimburses all costs associated with actual HazMat responses.

Membership in the HazMat Team requires nationally accredited hazardous materials technician certification. The OSFM ensures members are fully equipped to enter the area immediately surrounding the hazardous material in order to monitor the environment and mitigate the incident.

With HazMat teams located in Coffeyville, Colby, Emporia, Ford County, Manhattan, Overland Park, Salina, Sedgwick County, Seward County, Topeka, and Wellington, the OSFM estimates that "These teams can respond to most areas in Kansas within an hour or less in order to address haz-mat incidents and accidents as well as terrorist events involving chemical, biological, radiological, or nuclear (CBRN) products."[44] This timeframe is dissimilar to the estimates of local Fire Chiefs on the ETA of Regional HazMat Teams to their jurisdiction.

Statistics from the KFMO indicate that Regional HazMat Teams have responded to 174 incidents between 11/2002 – 8/2013. Data for the number of response events in the Planning Region was not available.

SC Kansas Health Care Coalition[45]

The federal government defines Health Care Coalitions (HCCs) as sub-state regional healthcare system of emergency preparedness activities involving the member organizations. Based on this definition, KDHE asserted that the existing seven (7) hospital preparedness regions would become the regional HCCs for the grant purposes in Kansas.

The SC KS HCCS includes the same counties in the planning area of this study: Barber, Barton, Butler, Comanche, Cowley, Edwards, Harper, Harvey, Kingman, Kiowa, Marion, McPherson, Pawnee, Pratt, Reno, Rice, Sedgwick, Stafford, and Sumner Counties

The medical care providers who are members of the SC HCCS include:

1. Anthony Medical Center.
2. Clara Barton Hospital.
3. Comanche County Hospital.
4. Edwards Co. Hospital.
5. Ellinwood Dist. Hospital.
6. Galichia Heart Hospital.
7. Great Bend Regional Hospital.
8. Harper Hospital District #5.
9. Hillsboro Community Hospital.
10. Hospital District #1 of Rice County.
11. Hutchinson RMC.
12. Kiowa County Memorial Hospital.
13. Kiowa District Hospital & Manor
14. Lindsborg Community Hospital.
15. McPherson Hospital Inc.

[44] KFMO Website at http://firemarshal.ks.gov/division/hazmat, accessed July 31, 2014.
[45] Source: October 2012

16. Medicine Lodge Memorial Hospital.
17. Newton Medical Center
18. Ninnescah Valley Health System.
19. Pawnee V alley Community Hospital.
20. Pratt RMC.
21. Saint Luke Hospital & Living Center.
22. Stafford County Hospital.
23. South Central Ks Medical Center.
24. Sumner County District #1 Hospital.
25. Sumner RMC.
26. Susan B. Allen Memorial Hospital.
27. Via Christi Hospital - St. Teresa.
28. William Newton Hospital.
29. Via Christi Hospital.
30. St. Francis Central Kansas Region.
31. Robert J Dole V A Hospital.
32. Prairie Star Health Center.
33. Wesley Rehab Hospital.
34. LTAC of Wichita.

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Appendixes

Appendix: 1 Regulations and Laws Specific to HazMat and Emergency Response

Italics: Added text for explanation
See List of Acronyms at the beginning of the document for additional information.

Topic	Source	Authority or Protocol
Above Ground Tanks, Connection	**KAR**	**22-7-11 Connection of above ground tanks to dispensers used for refueling vehicles.** (a) Above ground tanks of no more than 12,000 gallons total capacity may be connected to a dispenser used for refueling vehicles if, by the determination of the state fire marshal, adequate safeguards, including distances to property of value, proper valving and dispenser protection are provided and a reasonable degree of safety is maintained. (b) Local jurisdictions may supersede this approval through zoning, ordinance or permitting prohibitions against such installations. (Authorized by and implementing K.S.A. 1991 Supp. 31- 133; effective May 10, 1993.)
All Emergencies, Lead State Coordinating Agency, Authorities, Responsibilities	**KDHE** **KDEM**	• KDEM is authorized as the **State Coordinating Agency** for state emergency response operations, including response to HazMat and radiation accidents or incidents. • The Adjutant General is the Governor's Authorized Representative in all disasters/emergencies. • KDEM is responsible for the management and operation of the State Emergency Operations Center (EOC), and for equipping it and providing administrative staff in support of state agencies as the center is activated.
Authority, Agents of the KCC, The special agents, agents, employees, or representatives	**KAR 82-4-2.**	82-4-2a. Authority of agents, employees, or representatives authorized by commission (*KCC*). The special agents, agents, employees, or representatives authorized by the commission shall have the authority to perform the following: (a) Examine motor carrier equipment operating on the highways in this state; (b) enter upon any motor carrier's premises located in the state of Kansas and inspect and examine the motor carrier's records, books, and equipment located on the premises; and (c) examine the manner of the motor carrier's conduct as it relates to the public safety and the operation of commercial motor vehicles in this state. (Authorized by K.S.A. 2010 Supp. 66- 1,108a and K.S.A. 2010 Supp. 66-1,108c; implementing K.S.A. 2010 Supp. 66-1,108b; effective Nov. 14, 2011.)
Authority, Inspection, Law Enforcement, Motor Carriers	**K.S.A Article 21** **74-2108.**	**Police powers of patrol members; enforcement of laws relating to motor carriers; authority to inspect.** (a) The superintendent and members of the Kansas highway patrol are hereby vested with the power and authority of peace, police and law enforcement officers anywhere within this state irrespective of county lines. (b) In addition to the general power and authority prescribed by subsection (a), the superintendent and members of the Kansas highway patrol are hereby authorized and directed to execute and enforce the laws of this state relating to public and private motor carriers of passengers or property, including any rules and regulations relating to such laws, and shall have the power and authority to require the driver

		of any motor vehicle owned or operated by any such carrier to stop and submit such vehicle to an inspection to determine compliance with such laws and rules and regulations. **History:** L. 1972, ch. 291, § 3; L. 1974, ch. 328, §1; L. 1988, ch. 266, § 16; July 1.
Community Right-to-Know Requirements,	**42 (USC).**	**Sections 311 and 312.** • Facilities manufacturing, processing, or storing designated hazardous chemicals must make Material Safety Data Sheets (MSDSs) available to state and local officials and local fire departments. • MSDSs describe the properties and health effects of these chemicals. Facilities must also report, to state and local officials and local fire departments, inventories of all on-site chemicals for which MSDSs exist. • Information about chemical inventories at facilities and MSDSs must be available to the public.
Debris Removal; Cities and Municipalities; State Assistance	**K.S.A. 12-16,127.**	Removal of debris in certain cities, request of assistance from department of transportation, limitations; eligible cities. (a) Any eligible city may request from the department of transportation such equipment and personnel as may be necessary to remove, haul or transport any debris from demolished residential structures located within the boundaries of such city, but outside any existing 100-year flood-plain as identified by the United States federal emergency management agency, that have been damaged by flood waters. Upon receipt of such request by the department of transportation, the department shall provide the requested equipment and personnel as the secretary of transportation deems appropriate and at such time as the equipment and personnel become available according to the work schedule of the department. The equipment and personnel shall be provided at no cost to the city making such request. (b) An eligible city shall only request the demolition of those residential structures which have been deemed unsafe, dangerous or abandoned by the city and which may be razed by the city pursuant to K.S.A. 12-1750 et seq., and amendments thereto. (c) For the purposes of this section "eligible city" means any city located, in whole or in part, within the boundaries of any county designated by the United States federal emergency management agency under major disaster declaration FEMA-1711-DR as eligible to receive individual or public assistance from the United States federal government. (d) The provisions of this act shall expire on and after July 1, 2013. History: L. 2008, ch. 161, § 1; May 22.
Disaster, Emergency, Governor, Powers	**K.S.A. 48-925.**	Powers of governor during state of disaster emergency; orders and proclamations, administered by adjutant general. (a) During any state of disaster emergency declared under K.S.A. 48-924, and amendments thereto, the governor shall be commander-in-chief of the organized and unorganized militia and of all other forces available for emergency duty. To the greatest extent practicable, the governor shall delegate or assign command authority by prior arrangement, embodied in appropriate executive orders or in rules and regulations of the adjutant general, but nothing herein shall restrict the authority of the governor to do so by orders issued at the time of a disaster.

		(b) Under the provisions of this act and for the implementation thereof, the governor may issue orders and proclamations which shall have the force and effect of law during the period of a state of disaster emergency declared under subsection (b) of K.S.A. 48-924, and amendments thereto, and which orders and proclamations shall be null and void thereafter unless ratified by concurrent resolution of the legislature. Such orders and proclamations may be revoked at any time by concurrent resolution of the legislature. (c) During a state of disaster emergency declared under K.S.A. 48-924, and amendments thereto, and in addition to any other powers conferred upon the governor by law, the governor may: (1) Suspend the provisions of any regulatory statute prescribing the procedures for conduct of state business, or the orders or rules and regulations of any state agency which implements such statute, if strict compliance with the provisions of such statute, order or rule and regulation would prevent, hinder or delay in any way necessary action in coping with the disaster; (2) utilize all available resources of the state government and of each political subdivision as reasonably necessary to cope with the disaster; (3) transfer the supervision, personnel or functions of state departments and agencies or units thereof for the purpose of performing or facilitating emergency management activities; (4) subject to any applicable requirements for compensation under K.S.A. 48-933, and amendments thereto, commandeer or utilize any private property if the governor finds such action necessary to cope with the disaster; (5) direct and compel the evacuation of all or part of the population from any area of the state stricken or threatened by a disaster, if the governor deems this action necessary for the preservation of life or other disaster mitigation, response or recovery; (6) prescribe routes, modes of transportation and destinations in connection with such evacuation; (7) control ingress and egress of persons and animals to and from a disaster area, the movement of persons and animals within the area and the occupancy by persons and animals of premises therein; (8) suspend or limit the sale, dispensing or transportation of alcoholic beverages, explosives and combustibles; (9) make provision for the availability and use of temporary emergency housing; (10) require and direct the cooperation and assistance of state and local governmental agencies and officials; and (11) perform and exercise such other functions, powers and duties as are necessary to promote and secure the safety and protection of the civilian population. (d) The governor shall exercise the powers conferred by subsection (c) by issuance of orders under subsection (b). The adjutant general, subject to the direction of the governor, shall administer such orders. History: L. 1975, ch. 283, § 5; L. 1994, ch. 248, § 13; L. 2001, ch. 163, § 12; L. 2008, ch. 97, § 2; July 1.
Disaster; Declarations; State; Governor Responsibilities	**K.S.A. 48-924**	**Disasters; responsibilities of governor; state of disaster emergency.** (a) The governor shall be responsible for meeting the dangers to the state and people presented by disasters.

		(b) (1) The governor, upon finding that a disaster has occurred or that occurrence or the threat thereof is imminent, shall issue a proclamation declaring a state of disaster emergency. (2) In addition to or instead of the proclamation authorized by K.S.A. 47-611, and amendments thereto, the governor, upon a finding or when notified pursuant to K.S.A. 47-611, and amendments thereto, that a quarantine or other regulations are necessary to prevent the spread among domestic animals of any contagious or infectious disease, may issue a proclamation declaring a state of disaster emergency. In addition to or instead of any actions pursuant to the provisions of K.S.A. 2-2114, and amendments thereto, the governor, upon a finding or when notified pursuant to K.S.A. 2-2112 *et seq.*, and amendments thereto, that a quarantine or other regulations are necessary to prevent the spread among plants, raw agricultural commodities, animal feed or processed food of any contagious or infectious disease, may issue a proclamation declaring a state of disaster emergency. (3) The state of disaster emergency so declared shall continue until the governor finds that the threat or danger of disaster has passed, or the disaster has been dealt with to the extent that emergency conditions no longer exist. Upon making such findings the governor shall terminate the state of disaster emergency by proclamation, but except as provided in paragraph (4), no state of disaster emergency may continue for longer than 15 days unless ratified by concurrent resolution of the legislature, with the single exception that upon specific application by the governor to the state finance council and an affirmative vote of a majority of the legislative members thereof, a state of disaster emergency may be extended once for a specified period not to exceed 30 days beyond such 15-day period. (4) If the state of disaster emergency is proclaimed pursuant to paragraph (2), the governor shall terminate the state of disaster emergency by proclamation within 15 days, unless ratified by concurrent resolution of the legislature, except that when the legislature is not in session and upon specific application by the governor to the state finance council and an affirmative vote of a majority of the legislative members thereof, a state of disaster emergency may be extended for a specified period not to exceed 30 days. The state finance council may authorize additional extensions of the state of disaster emergency by a unanimous vote of the legislative members thereof for specified periods not to exceed 30 days each. Such state of disaster emergency shall be terminated on the 15th day of the next regular legislative session following the initial date of the state of disaster emergency unless ratified by concurrent resolution of the legislature. (5) At any time, the legislature by concurrent resolution may require the governor to terminate a state of disaster emergency. Upon such action by the legislature, the governor shall issue a proclamation terminating the state of disaster emergency. (6) Any proclamation declaring or terminating a state of disaster emergency, which is issued under this subsection, shall indicate the nature of the disaster, the area or areas threatened or affected by the disaster and the conditions which have brought about, or which make possible the termination of, the state of disaster emergency. Each such proclamation shall be disseminated promptly by means calculated to bring its contents to the attention of the general public and, unless the circumstances attendant upon the disaster prevent the same, each such proclamation shall be filed promptly with

		the division of emergency management, the office of the secretary of state and each city clerk or county clerk, as the case may be, in the area to which such proclamation applies. (c) In the event of the absence of the governor from the state or the existence of any constitutional disability of the governor, an officer specified in K.S.A. 48-1204 and amendments thereto, in the order of succession provided by that section, may issue a proclamation declaring a state of disaster emergency in the manner provided in and subject to the provisions of subsection (a). During a state of disaster emergency declared pursuant to this subsection, such officer may exercise the powers conferred upon the governor by K.S.A. 48-925, and amendments thereto. If a preceding officer in the order of succession becomes able and available, the authority of the officer exercising such powers shall terminate and such powers shall be conferred upon the preceding officer. Upon the return of the governor to the state or the removal of any constitutional disability of the governor, the authority of an officer to exercise the powers conferred by this section shall terminate immediately and the governor shall resume the full powers of the office. Any state of disaster emergency and any actions taken by an officer under this subsection shall continue and shall have full force and effect as authorized by law unless modified or terminated by the governor in the manner prescribed by law. (d) A proclamation declaring a state of disaster emergency shall activate the disaster response and recovery aspects of the state disaster emergency plan and of any local and interjurisdictional disaster plans applicable to the political subdivisions or areas affected by the proclamation. Such proclamation shall be authority for the deployment and use of any forces to which the plan or plans apply and for use or distribution of any supplies, equipment, materials or facilities assembled, stockpiled or arranged to be made available pursuant to this act during a disaster. (e) The governor, when advised pursuant to K.S.A. 74-2608, and amendments thereto, that conditions indicative of drought exist, shall be authorized to declare by proclamation that a state of drought exists. This declaration of a state of drought can be for specific areas or communities, can be statewide or for specific water sources and shall effect immediate implementation of drought contingency plans contained in state approved conservation plans, including those for state facilities. **History:** L. 1975, ch. 283, § 4; L. 1991, ch. 292, § 1; L. 1994, ch. 248, § 12; L. 2001, ch. 163, § 11; L. 2002, ch. 88, § 5; May 2.
Disaster; Law and Declarations; Limitations; State	**K.S.A. 48-923.**	**Limitations on effect of act. Nothing in the emergency management act shall be construed to:** (a) Interfere with the course or conduct of a labor dispute, except that actions otherwise authorized by this act may be taken when necessary to forestall or mitigate imminent or existing danger to public health or safety; (b) interfere with dissemination of news or comment on public affairs; but any communications facility or organization, including but not limited to radio and television stations, wire services and newspapers, may be required by the governor to transmit or print public service messages, information or instructions in connection with a declared state of disaster emergency; (c) affect, other than during a declared state of disaster emergency, the jurisdiction or responsibilities of police forces, fire fighting forces, units of the armed forces of the United States, or of any personnel thereof, when on active duty; but the state disaster emergency plan and local and interjurisdictional

		disaster emergency plans shall place reliance upon such forces which are available for performance of functions related to a declared state of disaster emergency; or (d) limit, modify or abridge the authority of the governor to proclaim martial law or exercise any other powers vested in the governor under the constitution, statutes or common law of this state independent of, or in conjunction with, any provisions of this act. History: L. 1975, ch. 283, § 3; L. 1994, ch. 248, § 11; July 1
Donations; Management; State; Municipalities	**K.S.A. 48-916**	**Authority to accept services, gifts, grants and loans.** (a) Whenever the federal government or any agency or officer thereof offers to the state, or through the state to any political subdivision thereof, services, equipment, supplies, materials or funds by way of gift, grant or loan, for purposes of emergency management, the state, acting through the governor or such political subdivision, acting with the consent of the governor and through its executive officer or governing body, may accept such offer and upon such acceptance the governor of the state or executive officer or governing body of such political subdivision may authorize any officer of the state or of the political subdivision, as the case may be, to receive such services, equipment, supplies, materials or funds on behalf of the state or such political subdivision, and subject to the terms of the offer and the rules and regulations, if any, of the agency making the offer. (b) Whenever any person, firm or corporation offers to the state or to any political subdivision thereof, services, equipment, supplies, materials or funds by way of gift, grant or loan, for purpose of emergency management, the state, acting through the governor, or such political subdivision, acting through its executive officer or governing body, may accept such offer and upon such acceptance the governor of the state or executive officer or governing body of such political subdivision may authorize any officer of the state or of the political subdivision, as the case may be, to receive such services, equipment, supplies, materials or funds on behalf of the state or such political subdivision, subject to the terms of the offer. (c) If an agreement pursuant to which an interjurisdictional disaster agency is established and functions so provides, such agency may accept, administer, utilize and expend grants, gifts or other assistance in the same manner provided for the state and political subdivisions in subsections (a) and (b). History: L. 1951, ch. 323, § 15; L. 1975, ch. 283, § 26; L. 1994, ch. 248, § 6; July 1.
Duties; Disaster; Individuals; Property Loss Compensation; Exceptions; Claims	**K.S.A. 48-933.**	**Duty of individuals during disaster emergencies; compensation for loss of property, exceptions; claims procedure.** (a) Each person within this state shall act and manage the affairs of such person and such person's property in any way which reasonably will assist and not detract from the ability of the state and the public successfully to meet disasters. This obligation includes appropriate personal service and use or restriction on the use of property during a declared state of disaster emergency under K.S.A. 48-924, and amendments thereto, or a declared state of local disaster emergency under K.S.A. 48-932, and amendments thereto. This act neither increases nor decreases these obligations, but recognizes their existence under the constitution and statutes and the common law of this state. Compensation for services or for the taking or use of property shall be only to the extent that obligations recognized in this

		subsection are exceeded in a particular case and then only to the extent that the claimant may not be deemed to have volunteered services or property without compensation. (b) No personal services may be compensated by the state or any subdivision or agency thereof, except pursuant to statute enacted or ordinance duly adopted therefore. (c) Compensation for property shall be only if the property was commandeered or otherwise used in coping with a disaster and its use or destruction was ordered by the governor, adjutant general, an official of a county, city or interjurisdictional disaster agency, or some other authorized member of the emergency management forces of this state. (d) Any person claiming compensation for the use, damage, loss or destruction of property under this act shall file a claim therefore in the district court in the same manner as any other civil action. The court shall determine the validity of such claim in the same manner and under the same conditions prescribed for condemnation actions pursuant to K.S.A. 26-501 et seq., and amendments thereto. Unless the amount of compensation on account of property damaged, lost or destroyed is agreed upon by the claimant and the adjutant general, the amount of compensation shall be calculated in the same manner as compensation due for a taking of property pursuant to the condemnation law of this state. (e) Nothing in this section applies to or authorizes compensation for the destruction or damaging of standing timber or other property in order to provide a firebreak or for the release of waters or the breach of impoundments in order to reduce pressure or other danger from actual or threatened flood. History: L. 1975, ch. 283, § 13; L. 1994, ch. 248, § 20; July 1.
Duty, Sheriffs, Peace Officers and County Attorneys	**Article 1. - K.S.A 66-1,131**	**Powers Of State Corporation Commission. Duty of sheriffs, peace officers and county attorneys.** It shall be the duty of the sheriffs or other peace officers of any county or of this state to make arrests, and the county attorneys to prosecute all violations of the provisions of this act.
Emergencies; Municipal; Ordinances	**K.S.A. 48-935.**	Force and effect of municipal ordinances during disaster emergencies. Any ordinance of any municipality authorizing the mayor or other persons to act during a state of disaster emergency proclaimed under K.S.A. 48-924 or during a state of local disaster emergency declared under K.S.A. 48-932, shall be in full force and effect except for the provisions of such ordinance which are in conflict with any provision of this act or of the state disaster emergency plan or of the applicable local and interjurisdictional disaster emergency plans in which case such conflicting provisions of such ordinance shall be null and void for all purposes. History: L. 1975, ch. 283, § 15; April 11.
Emergency Notification, Section 304.	**42 USC**	• Facilities must immediately report accidental releases of EHS chemicals and "hazardous substances" in quantities greater than corresponding **Reportable Quantities (RQs)** defined under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to state and local officials. • Information about accidental chemical releases must be available to the public.
Emergency Planning, Local and state	**42 United States Code (USC). Sections 301 to 303.**	• Local governments (*read: LEPCs*) are required to prepare chemical emergency response plans, and to review plans at least annually.

governments, and facilities		• State governments (*read: State Emergency Response Commissions*) are required to oversee and coordinate local planning efforts. • Facilities (*read: any facility, whether public or private*) that maintain Extremely Hazardous Substances (EHS) on-site in quantities greater than corresponding threshold planning quantities must cooperate in emergency plan preparation.
Emergency Powers; Duties; County, City Officials	**K.S.A 48-932.**	**States of local disaster emergency; effect; powers and duties of county and city officials.** (a) A state of local disaster emergency may be declared by the chairman of the board of county commissioners of any county, or by the mayor or other principal executive officer of each city of this state having a disaster emergency plan, upon a finding by such officer that a disaster has occurred or the threat thereof is imminent within such county or city. No state of local disaster emergency shall be continued for a period in excess of seven (7) days or renewed, except with the consent of the board of county commissioners of such county or the governing body of such city, as the case may be. Any order or proclamation declaring, continuing or terminating a local disaster emergency shall be given prompt and general publicity and shall be filed promptly with the county clerk or city clerk, as the case may be. (b) In the event of the absence of the chairman of the board of county commissioners from the county or the incapacity of such chairman, the board of county commissioners, by majority action of the remaining members thereof, may declare a state of local disaster emergency in the manner provided in and subject to the provisions of subsection (a). In the event of the absence of the mayor or other principal executive officer of a city from the city or the incapacity of such mayor or officer, the governing body of the city, by majority action of the remaining members thereof, may declare a state of local disaster emergency in the manner provided in and subject to the provisions of subsection (a). Any state of local disaster emergency and any actions taken pursuant to applicable local and interjurisdictional disaster emergency plans, under this subsection shall continue and have full force and effect as authorized by law unless modified or terminated in the manner prescribed by law. (c) The declaration of a local disaster emergency shall activate the response and recovery aspects of any and all local and interjurisdictional disaster emergency plans, which are applicable to such county or city, and shall initiate the rendering of aid and assistance thereunder. (d) No interjurisdictional disaster agency or any official thereof may declare a local disaster emergency, unless expressly authorized by the agreement pursuant to which the agency functions. However, an interjurisdictional disaster agency shall provide aid and services in accordance with the agreement pursuant to which it functions in the case of a state of local disaster emergency declared under subsection (a). History: L. 1975, ch. 283, § 12; April 11.
Emergency Response Training – Fuel Retail Stations	**KAR 22-7-10 KFMO**	**Emergency response training.** (a) Each employee involved in fuel transfer into motor vehicles at a retail service station, including attendants and cashiers of self- service stations, upon employment and at least annually thereafter shall receive training from a responsible facility representative or industry organization on the proper procedures to be used in case of fire, overfill, or fuel spill situation. Such training shall include information regarding improper transfer of fuels, types of improper and illegal containers, and

		instruction of the proper use of fire extinguishers. Documentation of such training shall be maintained and shall be available for inspection upon request by a deputy state fire marshal. (b) Each establishment or facility involved in fuel transfer into motor vehicles at retail service stations shall have emergency instructions covering fire, overfill or fuel spill procedures posted and readily available in the vicinity of all control consoles or attendant locations. Emergency telephone numbers shall be included on the instructions. The owner or designee of each establishment or facility is responsible for developing and posting the instructions. (Authorized by and implementing K.S.A. 1991 Supp. 31- 133; effective May 10, 1993.)
Emergency; Responsibilities; Political Jurisdictions	**K.S.A. 48-951.**	**Responsibilities of participating political subdivisions.** It shall be the responsibility of each participating political subdivision with jurisdiction over and responsibility for emergency management within such subdivision to: (a) Identify potential hazards that could affect the participating political subdivision, using an identification system common to all participating jurisdictions; (b) conduct joint planning, intelligence sharing and threat assessment development with contiguous participating political subdivisions and conduct joint training; (c) identify and inventory the current services, equipment, supplies, personnel and other resources related to planning, prevention, mitigation and response and recovery activities of the participating political subdivision; and (d) adopt, train on and operate using the national incident management system as approved by division. History: L. 2006, ch. 106, § 4; July 1.
Emergency; Terms; Definitions	**K.S.A. 48-904.**	**Definitions. As used in this act:** (a) "Emergency management" means the preparation for and the carrying out of all emergency functions, other than functions for which military forces or other federal agencies are primarily responsible, to prevent, minimize and repair injury and damage resulting from disasters; (b) "adjutant general" means the adjutant general of the state of Kansas; (c) "division of emergency management" means the division of emergency management created in the office of the adjutant general by K.S.A. 48-905, and amendments thereto; (d) "disaster" means the occurrence or imminent threat of widespread or severe damage, injury or loss of life or property resulting from any natural or manmade cause, including, but not limited to, fire, flood, earthquake, wind, storm, epidemics, contagious or infectious disease, air contamination, blight, drought, infestation, explosion, riot, terrorism or hostile military or paramilitary action; (e) "unorganized militia" means all able-bodied male and female persons between the ages of 16 and 50 years; (f) "state disaster emergency plan" means the plan prepared and maintained by the division of emergency management pursuant to K.S.A. 48-926, and amendments thereto; (g) "local and interjurisdictional disaster emergency plans" means all disaster emergency plans developed and promulgated by county, city and interjurisdictional disaster agencies pursuant to K.S.A. 48-929, and amendments thereto; and (h) "hazardous material" means any substance or material in a quantity or form which may be harmful or injurious to the health and safety of humans, animals, crops or property when released into the

		environment. Hazardous material includes, but is not limited to, explosives, radioactive materials, disease-causing agents, flammable liquids, solids or gases, combustible liquids, poisons, poisonous gases, oxidizing materials, corrosive materials, irritants, nonflammable gases, cryogenics and blasting agents. History: L. 1951, ch. 323, § 3; L. 1955, ch. 263, § 2; L. 1975, ch. 283, § 1; L. 1980, ch. 158, § 1; L. 1994, ch. 248, § 2; L. 2001, ch. 163, § 10; L. 2002, ch. 83, § 1; July 1.
Fire Prevention Codes, Retroactivity, Kansas,	**KAR 22-7-8 KFMO**	**Retroactivity.** (a) Kansas Fire Prevention Code regulations governing flammable and combustible liquids shall apply uniformly at all new or existing establishments and facilities in Kansas except as modified below. Requirements pertaining to operational practices and use of containers shall apply and be enforced at all new or existing establishments and facilities at or in which flammable or combustible liquids are stored, handled or used as of the effective date of these regulations. (1) Physical installations shall apply and be en- forced at all establishments and facilities erected, constructed, installed or first devoted to flammable or combustible liquid storage, handling or use on or after the effective date of these regulations. (2) Establishments and facilities in existence prior to the effective date of these regulations shall comply with the following minimum requirements. (A) The location or arrangement of buildings, tanks, platforms, docks, or spacing or clearances between these installations or between these installations and ad- joining property lines, shall not be deemed to be distinctly hazardous and may be continued. When reconstruction or modernization of any noncomplying establishment or facility existing prior to the effective date of these regulations is undertaken, the elimination or correction of such nonconformity shall then be made in the course of such work. (B) Lack of adequate emergency venting on any above ground tank, or lack of an operable fire valve at any tank opening below the liquid level on above ground tanks of more than 1,100 gallons or on any size above ground tank used for refueling at a service station, is deemed to be distinctly hazardous and shall be corrected or eliminated by no later than January 1, 1994 in all tanks except for crude oil tanks in oil fields, or tanks at refineries or marine or pipeline terminals. (C) Lack of a liquid level gauge or a suitable means to prevent tank overfilling with the availability of appropriate conversion charts to determine the available capacity of a tank is deemed to be distinctly hazardous, and such system or means shall be installed and operable by no later than October 1, 1993. (D) Lack of diking of existing above ground tanks to contain a fuel spill of at least 110 percent to the capacity of the largest tank is deemed to be distinctly hazardous, and such diking or containment shall be installed which contains the product at a location away from inhabited buildings or places of high value by no later than January 1, 1994. (E) Lack of breakaway devices on all dispenser hoses and the secure anchoring of dispensers is deemed to be distinctly hazardous, and such shall be installed, anchored and operable by no later than October 1, 1993. (F) Lack of a properly installed fire valve underneath a dispenser in a pressurized piping system is deemed to be distinctly hazardous, and such device shall be in- stalled immediately.

		(G) Lack of a properly operating solenoid valve installed adjacent to any tank installed at an elevation which produces a gravity head on a dispensing device used to refuel vehicles and in the piping serving any such dispenser is deemed to be distinctly hazardous, and such valve shall be installed by no later than July 1, 1994, or at any prior date when such piping or dispenser is modified or replace. (H) Lack of a fire valve or vacuum-activated anti- siphon valve installed underneath any suction type dispenser served by above ground tanks at an elevation that produces a gravity head on a dispensing device used to re- fuel vehicles is deemed to be distinctly hazardous, and either a fire valve or anti-siphon vacuum activated valve shall be installed by no later than July 1, 1994, or at any prior date when such piping or dispenser is modified or replaced. (I) Lack of substantial collision protection at the end of dispenser islands is determined to be distinctly hazardous, and such protection shall be provided no later than January 1, 1994, or any prior date when dispenser island is modified or upgraded. (Authorized by and implementing K.S.A. 1992 Supp. 31-133; effective May 10, 1993.) 22-7-9 Flammable and combustible liquid transfer responsibility. Each individual conducting the transfer of flammable or combustible liquids from a transport vehicle to a storage tank governed by the Kansas Fire Protection Code shall verify the available capacity of the tank prior to starting any transfer operations, be in attendance during such operations and take the necessary steps to insure that overfilling does not occur. (Authorized by and implementing K.S.A. 1991 Supp. 31-133; effective May 10, 1993.)
Fire, HazMat and Explosives, Safeguarding of life and property.	**K.A.R 31-133** **K.A.R 31-139**	• Mandates that the OSFM adopts reasonable rules and regulations for the safeguarding of life and property from fire, explosion and hazardous materials. • Grants the OSFM, deputies of the fire marshal, and local organized fire department personnel authority to enter all buildings and premises, other than one and two family dwellings, for the purpose of inspecting compliance with the rules and regulations.
Fire, High Risk Areas, Reporting, Railroad	**K.A.R. 82-6-3** **May be KDOT's or Fire Marshal's** **No definition for the word immediately is = risk to water** **Discovery or knowledge=when they should have known** **The next business day if not threatening water.**	**High fire areas.** (a) The term ``high fire area'' means any 10-mile section of a carrier's right-of-way wherein there has been, during the immediate past three-calendar-year period, an average of three or more diesel locomotive originated fires per year. (b) Every carrier shall treat high fire areas by either plowing, burning, cutting, or chemically spraying all vegetation for a distance of not less than 25 feet from the outside rails and between all rails on its right-of-way. Periodic inspections of the high fire areas shall be made by the commission to assure compliance with this standard. (c) On or before March 1 of each year, every carrier shall report to the commission all high fire areas on its right-of-way in the state of Kansas. (d) The report shall state the location of the high fire areas by railroad mile post numbers, county, and nearest town or city. The report shall also include, but not be limited to, the date of each fire, the number of fires and the total acres burned in each of the specific high fire areas. (e) The report shall state the nature of the treatment of high fire areas, and the date of that treatment for each area in the preceding calendar year. (Authorized by K.S.A. 66-231b; implementing K.S.A. 66-156; effective, E-72-22, July 28, 1972; effective Jan. 1, 1973; amended May 1, 1984.)

Fire, Prevention, Railroad	**K.A.R 82-6-1 KCC**	**Definitions.** The following terms used in connection with rules and regulations governing suppression of diesel locomotive originated fires on railroad right-of-way shall be defined as follows: (1) The term ``commission'' refers to the state corporation commission of the state of Kansas. (2) The term ``carrier'' means any railroad, rail- way company or corporation subject to commission jurisdiction, which operates a railroad in the state of Kansas. (3) The term ``right-of-way'' is the property on which the roadbed, tracks and fixed facilities necessary for the operation of trains are located. (Authorized by K.S.A. 66-101, 66-106, 66-156; effective, E-72-22, July 28, 1972; effective Jan. 1, 1973.)
Fire, Prevention, Railroad, Spark Arresters	**K.A.R 82-6-2 KCC**	**Spark arresters.** (a) No carrier shall use or operate a non-turbo charged diesel locomotive for over-the-road service in the state of Kansas unless it is equipped with a spark arrester. The spark arrester shall be constructed of nonflammable materials that are at least 80 percent efficient in the retention or destruction of all carbon particles .023 inch in diameter and larger for 30 to 100 percent of the locomotive engine's exhaust flow rate. With the addition of the arrester, the total manifold exhaust back leg pressure shall not exceed 31/2 inches of mercury. (b) Any carrier may make application to the commission for an extension of time to meet the standards of subsection (a) on the grounds of non-availability of parts and material, or on the grounds of financial inability to meet the provisions of subsection (a). (Authorized by and implementing K.S.A. 66-231b; effective, E-72-22, July 28, 1972; effective Jan. 1, 1973; amended May 1, 1984.)
Fireworks, Bottle Rocket, Manufacturers or Wholesalers, Registration	**K.A.R. 22-6-16 KFMO**	**Registration of bottle rocket manufacturers and wholesalers.** (a) Any manufacturer or wholesaler of bottle rockets who desires to store, handle, possess, or transport bottle rockets in this state for any use outside this state shall register annually with the office of the state fire marshal. (b) Any person desiring to store, handle, possess, or transport bottle rockets in this state shall complete a registration application furnished by the office of the state fire marshal. This application shall be completed and received by the state fire marshal's office before May 31 of each year. Each registration shall be valid for one year from June 1 to May 31 of the following year. The application shall contain name of applicant, name of business, address of business, description of business activity, destination and disposition of the bottle rockets, and any other information deemed necessary by the state fire marshal. (Authorized by and implementing K.S.A. 31-133, 31-155, 31-156; effective May 1, 1982; amended May 1,1983.)

Fireworks, Definition, Transportation	**K.A.R. 22-6-1 KFMO**	**Definitions; exclusions.** (a)(1) "Fireworks" shall have the meaning specified in national fire protection association standard no. 1123, which is adopted by reference in K.A.R. 22-6-20. (A) "Consumer fireworks" shall have the meaning specified in national fire protection association standard no. 1123, which is adopted by reference in K.A.R. 22-6-20. (B) "Display fireworks" shall have the meaning specified in national fire protection association standard no. 1123, which is adopted by reference in K.A.R. 22-6-20. (C) "Pyrotechnic article" shall have the meaning specified in national fire protection association standard no. 1124, which is adopted by reference in K.A.R. 22-6-20. (2) "Novelties" shall have the meaning specified in the American pyrotechnic association standard no. 87-1, which is adopted by reference in K.A.R. 22-6-20. (3) "Responsible person" means an individual who has the power to direct the management and policies of the applicant pertaining to explosive materials. (b) Nothing in these regulations shall apply to the following: (1) Toy smoke devices as defined in the American pyrotechnic association standard no. 87-1, section 3.2.3; (2) toy paper caps as defined in the American pyrotechnic association standard no. 87-1, section 3.3; (3) the manufacture, storage, sale, or use of signals necessary for the safe operation of railroads or other classes of public or private transportation; (4) the military or naval forces of the United States or of this state, or to peace officers,; and (5) the sale or use of blank cartridges for ceremonial or theatrical or athletic events. (Authorized by and implementing K.S.A. 2007 Supp. 31-133; effective Jan. 1, 1973; amended December 29, 2008)
Fireworks, Discharge	**K.A.R. 22-6-9 KFMO**	**Discharge of fireworks.** (a) A person shall not ignite or discharge fireworks into, under, or from a car or vehicle, whether moving or standing still;, or on a public roadway or the right-of-way adjoining a public roadway. (b) Fireworks shall not be discharged within 100 feet of any "place of institution," as defined by national fire protection association standard no. 101, which is adopted by reference in K.A.R. 22-1-3, or any retail fireworks stand or facility where fireworks are stored. (Authorized by and implementing K.S.A. 2007 Supp. 31-133; effective Jan. 1, 1973; amended May 1, 1986; amended December 29, 2008)
Fireworks, Display Operator, License	**K.A.R. 22-6-24 KFMO**	**Display operator license.** (a) Each person who operates an outdoor display of display fireworks, as defined in K.A.R. 22-6-1, shall obtain a license from the office of the state fire marshal. (b) Each applicant shall meet all of the following requirements: (1) The applicant shall provide proof of experience in the performance of at least three firework displays in the last four years. (A) For each of the three required displays, each applicant for a new display operator license shall include documentation of participation as an assistant under a display operator who has a valid Kansas license at the time of the displays. The licensed display operator shall provide written verification of the applicant's participation in the display. (B) For each of the three required displays, each applicant for renewal of the display operator license shall provide a signature from the local jurisdiction, organization

		sponsoring the display, Kansas licensed distributor who produced the display, or another Kansas licensed operator assisting with the display. (2) The applicant shall pay a nonrefundable fee of $40 for the initial application and the exam. For each additional exam required, the applicant shall be assessed a fee of $10. (3) The applicant shall complete a written examination, administered by the state fire marshal, and shall be required to achieve a passing score of at least 80 percent. (c) The display fireworks operator license shall be valid for four years from the date of issuance. (d) Each licensee shall keep the original license on the licensee's person at all times while performing duties as a display operator. A copy of the license shall not be accepted as valid proof of licensure if the licensee is questioned by law enforcement, the fire department, or the local authority. (e) No fee shall be charged for a display operator license for any person who is an officer or employee of the state or any political taxing subdivision of the state if that person is acting on behalf of the state or political taxing subdivision. (f) Each licensee shall comply with national fire protection association standard no. 1123, which is adopted by reference in K.A.R. 22-6-20, and all local, state, and federal regulations, statutes, and laws. (Authorized by K.S.A. 2007 Supp. 31-506; implementing K.S.A. 2007 Supp. 31-503; effective December 29, 2008)
Fireworks, Distributor License	**K.A.R. 22-6-23 KFMO**	**Distributor license.** (a) Each person engaged in the distribution of fireworks shall obtain a license from the Kansas state fire marshal's office. (b) Each applicant shall indicate which of the following classes the applicant is requesting a license for on the application: (1) Distributor of consumer fireworks; (2) distributor of display fireworks; (3) distributor of pyrotechnic articles; or (4) unlimited distributor. (c) Each applicant shall meet the following requirements: (1) Provide a list of the name of each individual, owner, partner, and other responsible person in the applicant's business; and (2) pay a nonrefundable fee of $300. (d) Each distributor license shall be valid for one year from the date of issuance. (e) Each licensee shall keep the original license posted on the distribution site at all times while engaging in distribution operations. A copy of the license shall not be accepted as valid proof of licensure if the licensee is questioned by law enforcement, the fire department, or the local authority. (f) A license shall not be required for any of the following: (1) Anyone who possesses a valid Kansas manufacturing license as specified in K.A.R. 22-6-21; (2) anyone who transports fireworks from one state to another state through the state of Kansas if the ultimate destination of the fireworks is not within the state of Kansas; (3) anyone who sells consumer fireworks during a fireworks season as a seasonal retailer; (4) any freight delivery company or common carrier, as defined in 49 C.F.R. 171.8 on April 15, 1976, as amended; or (5) any out-of-state person who sells, transports, delivers, or gives fireworks to a Kansas licensed

		manufacturer or distributor. (g) Each licensee shall comply with national fire protection association standard nos. 1124 and 1126, which are adopted by reference in K.A.R. 22-6-20, and with all local, state, and federal regulations, statutes, and laws. (Authorized by K.S.A. 2007 Supp. 31- 506; implementing K.S.A. 2007 Supp. 31-503; effective December 29, 2008)
Fireworks, Fire Protection Standards	**K.A.R. 22-6-20 KFMO**	**Adoptions by reference.** (a) The following national fire protection association standards, including annexes, are hereby adopted by reference: (1) No. 160, "standard for the use of flame effects before an audience," 2006 edition, except for section 2-3.2; (2) no. 1123, "code for fireworks display," 2006 edition, except for section 2-3.3; (3) no. 1124, "code for the manufacture, transportation, storage, and retail sales of fireworks and pyrotechnic articles," 2006 edition, with the following deletions and substitutions: (A) In section 5-1.1.2 (1), the words "that are not bullet sensitive" shall be deleted; (B) in section 6-2.7.1, the words "using an approved test sampling plan" shall be deleted and replaced by the following: "or a CPSC-approved test sampling plan shall be used"; (C) sections 2-3.5, 6-5.2.3, 6-5.2.4, 6-14.4, 7-3.19.4, and 7-4.6.3 shall be deleted; (D) in section 7-3.14.1.1, the text "three or as determined in accordance with NFPA 101, Life Safety Code, whichever number is greater" shall be deleted and replaced by the following: "two, or as determined in accordance with national fire protection association standard no. 101, which is adopted by reference in K.A.R. 22-1-3, whichever number is greater"; and (E) in section 7-3.15.6, the words "horizontally ejected" shall be inserted before "pyrotechnic components"; and (4) no. 1126, "standard for the use of pyrotechnics before a proximate audience," 2006 edition, except for section 2-3.2. (b) Chapter three in American pyrotechnics association standard 87-1, "standard for construction and approval for transportation of fireworks, novelties, and theatrical pyrotechnics," 2001 edition, is hereby adopted by reference, except for the following: (1) Section 3.8; (2) section 3.9; and (3) section 3.10. (Authorized by and implementing K.S.A. 2007 Supp. 31-133 and K.S.A. 2007 Supp. 31-506; effective December 29, 2008) K.A.R. 22-6-21. Manufacturing license. (a) Except for any hobbyist manufacturer, each person engaged in the manufacture of fireworks in the state of Kansas shall obtain a license from the office of the state fire marshal. (b) Each applicant shall indicate which of the following classes the applicant is requesting a license for on the application: (1) Manufacture of consumer fireworks; (2) manufacture of display fireworks; (3) manufacture of pyrotechnic articles; or (4) unlimited manufacture.

		(c) Each applicant shall meet the following requirements: (1) Provide a list of the name of each individual, owner, partner, and other responsible person in the applicant's business; and (2) pay a nonrefundable fee of $400. (d) Each manufacturing license shall be valid for one year from the date of issuance. (e) Each licensee shall keep the original license posted on the manufacturing site at all times while engaging in manufacturing operations. A copy of the license shall not be accepted as valid proof of licensure if the licensee is questioned by law enforcement, the fire department, or the local authority. (f) Each licensee shall comply with national fire protection standard no. 1124, which is adopted by reference in K.A.R. 22-6-20, and all local, state, and federal regulations, statutes, and laws. (Authorized by K.S.A. 2007 Supp. 31-506; implementing K.S.A. 2007 Supp. 31-503; effective December 29, 2008)
Fireworks, Legality	**K.A.R. 22-6-12 KFMO**	**Illegal fireworks.** Fireworks not permitted by K.S.A. 31-155, and amendments thereto, shall be illegal to be sold, possessed, manufactured, or transported. Any person in violation of this regulation may be subject to additional penalties, including criminal prosecution. (Authorized by and implementing K.S.A. 2007 Supp. 31-133; effective Jan. 1, 1973; amended May 1, 1986; amended December 29, 2008)
Fireworks, Manufacturing, Licensing, Hobby	**K.A.R. 22-6-22 KFMO**	**Hobbyist manufacturer license.** (a) Each person engaged in the manufacture of consumer fireworks, display fireworks, or pyrotechnic articles for that individual's personal use shall obtain a license from the office of the state fire marshal. (b) Each applicant shall meet the following requirements: (1) Obtain a valid display operator license pursuant to K.A.R. 22-6-24; and (2) pay a nonrefundable fee of $50. (c) Each licensee shall keep the original license posted on the manufacturing site at all times while engaging in manufacturing operations. A copy of the license shall not be accepted as valid proof of licensure if the licensee is questioned by law enforcement, the fire department, or the local authority. (d) The hobbyist manufacturer license shall be valid for four years from the date of issuance. (e) The licensee shall comply with national fire protection association standard no. 1124, which is adopted by reference in K.A.R. 22-6-20, and all local, state, and federal regulations, statutes, and laws. (Authorized by K.S.A. 2007 Supp. 31-506; implementing K.S.A. 2007 Supp. 31-503; effective December 29, 2008)
Fireworks, Operator, Licensing, Proximate Pyrotechnic	**K.A.R. 22-6-25 KFMO**	**Proximate pyrotechnic operator license.** (a) Each person who operates any indoor or outdoor pyrotechnic article, as defined in K.A.R. 22-6-1, shall obtain a license from the state fire marshal. (b) Each applicant shall indicate which of the following classes the applicant is requesting a license for on the application: (1) Indoor proximate pyrotechnic operator license; (2) outdoor proximate pyrotechnic operator license; (3) flame effect pyrotechnic operator license; or (4) unlimited proximate pyrotechnic operator license. (c) Each applicant shall meet all of the following requirements:

		(1) The applicant shall provide proof of experience in the performance of at least three firework displays in the last four years. (A) The applicant for a new license shall provide documentation of experience in the performance of at least three displays of pyrotechnic articles in the last four years. The use of at least four individual devices of pyrotechnic articles shall be used to qualify as a display. (B) For each of the three displays required for renewal of the proximate pyrotechnic license, the applicant shall acquire a signature from the local jurisdiction, organization sponsoring the display, Kansas licensed distributor who produced the display, or another Kansas licensed proximate pyrotechnic operator licensee assisting with the display. (2) The applicant shall pay a nonrefundable fee of $40 for the initial application and the exam. For each additional exam required, the applicant shall be assessed a fee of $10. (3) The applicant shall complete a written examination, administered by the state fire marshal, and shall be required to achieve a passing score of at least 80 percent. (d) The proximate pyrotechnic operator license shall be valid for four years from the date of issuance. (e) Each licensee shall keep the original license on the licensee's person at all time while performing duties as a proximate pyrotechnic operator. A copy of the license shall not be accepted as valid proof of licensure if the licensee is questioned by law enforcement, the fire department, or the local authority. (f) No fee shall be charged for a proximate pyrotechnic operator license for any person who is an officer or employee of the state or any political taxing subdivision of the state if that person is acting on behalf of the state or political taxing subdivision. (g) Each licensee shall comply with national fire protection association standard nos. 160 and 1126, which are adopted by reference in K.A.R. 22-6-20, and all local, state, and federal regulations, statutes, and laws. (Authorized by K.S.A. 2007 Supp. 31-506; implementing K.S.A. 2007 Supp. 31-503; effective December 29, 2008)
Fireworks, Permits, Denial, Suspension or Revocation	**K.A.R. 22-6-27 KFMO**	**Denial, suspension or revocation of permit or license.** (a) A license or permit shall be denied issuance, suspended, or revoked by the state fire marshal if the state fire marshal finds that the applicant, licensee, or permit holder meets either of the following conditions: (1) Has been convicted of a felony; or (2) knowingly provided false information in conjunction with an application for a license or permit. (b) A license or permit may be denied issuance, suspended, or revoked by the state fire marshal if the state fire marshal finds that the applicant, licensee, or permit holder meets either of the following conditions: (1) Violated any provision of any regulation of the state fire marshal; or (2) failed, neglected, or refused to provide direct supervision over any unlicensed person who assisted in the performance of a fireworks display. (Authorized by and implementing K.S.A. 2007 Supp. 31-133 and 31-506; effective December 29, 2008)

Fireworks, Permits, Storage	**K.A.R. 22-6-26 KFMO**	**Fireworks storage permit.** (a) Each person who stores display fireworks shall obtain a permit from the state fire marshal. A permit shall not be required for the use of day boxes, as defined in national fire protection association standard no. 1124, which is adopted by reference in K.A.R. 22-6-20, at a display site. (b) Each applicant shall meet the following requirements: (1) Hold a valid Kansas license to possess fireworks. The license shall be at least one of the following: (A) Display operator license; (B) hobbyist manufacturer license; (C) manufacturing license; (D) distributor license; or (E) proximate pyrotechnic operator license; and (2) pay a nonrefundable fee of $25. (c) Each licensee shall keep the original permit at the location of the storage site. A copy shall not be accepted as a valid permit if the permit holder is questioned by law enforcement, the fire department, or the local authority. (d) Each storage permit shall be valid for one of the following, whichever occurs first: (1) Four years from the date of issuance; (2) the expiration date of the license specified in paragraph (b)(1); or (3) the date on which the storage site is vacated if the site is vacated before the expiration date of the permit. The permit holder shall notify the Kansas state fire marshal's office and the local authority having jurisdiction when the site is vacated and is no longer in use. (e) No fee shall be charged for a fireworks storage permit for any person who is an officer or employee of the state or any political taxing subdivision of the state if that person is acting on behalf of the state or political taxing subdivision. (f) Each licensee shall comply with all local, state, and federal regulations, statutes, and laws. (Authorized by K.S.A. 2007 Supp. 31-506; implementing K.S.A. 2007 Supp. 31- 504; effective December 29, 2008)
Fireworks, Purchase, outside KS	**K.A.R. 22-6-19 KFMO**	**Purchase of display fireworks in another state.** (a) Any person who holds a valid Kansas display operator license pursuant to K.A.R. 22-6-24 may purchase display fireworks from a federally licensed dealer located in a state other than Kansas and may have display fireworks purchased in that state transported to a permitted firework storage site in Kansas. (b) A person who holds a Kansas display operator license shall not transport display fireworks across a state line in that person's own transport vehicle unless that person also holds a valid permit issued by the bureau of alcohol, tobacco, firearms, and explosives authorizing this activity. (Authorized by and implementing K.S.A. 2007 Supp. 31-133; effective December 29, 2008)
Fireworks, Records	**K.A.R. 22-6-18 KFMO**	**Records.** (a) Each licensee with a permit to store display fireworks shall keep an accurate inventory of all firework materials on hand. (b) Each operator of a temporary retail stand shall maintain a list of what consumer firework items are on the premises, indicating the Kansas licensed distributor from whom those items

		were purchased. This list shall be provided to law enforcement, the fire department, or the local authority, upon request. (Authorized by K.S.A. 2007 Supp. 31-133 and 31-506; implementing K.S.A. 2007 Supp. 31-133 and 31-505; amended December 29, 2008)
Fireworks, Sale, Days Permitted Discharge, Illegal	**K.A.R. 22-6-5 KFMO**	**Sale; days permitted.** A seasonal retailer shall not sell fireworks, except during the fireworks season. The fireworks season shall be the period beginning on June 27 and ending on July 5 of each calendar year. (Authorized by K.S.A. 2007 Supp. 31-506; implementing K.S.A. 2007 Supp. 31-502; effective Jan. 1, 1973; amended May 1, 1985; amended May 1, 1986; amended December 29, 2008.
Governmental; Liability Responder	**K.S.A. 48-957.**	**Nature of activities governmental; liability.** All activities performed under this act are deemed hereby to be governmental functions. For the purposes of liability, all persons responding under the operational control of the requesting political subdivision are deemed to be employees of the requesting participating political subdivision. Except in cases of willful misconduct, gross negligence or bad faith, neither the participating political subdivisions nor their employees shall be liable for the death of or injury to persons or for damage to property when complying or attempting to comply with the Kansas mutual aid system. History: L. 2006, ch. 106, § 10; July 1.
HazMat Stored/Used by state and municipal governments, Emergency Planning	**K.A.R. 22-24-8 KFMO**	**Emergency preplanning.** (a) Any emergency response team may submit a request to the state fire marshal for information concerning hazardous materials that are stored or used by a state agency. Upon request of the state fire marshal, the state agency shall furnish the requested information to the division. (b) Each government agency, including any county, city, township, or school district, shall provide information relating to its storage or use of hazardous materials when requested by an emergency response team. The local government agency shall furnish the requested information directly to the requesting team. (c) Information that may be requested under either subsection (a) or (b) shall include the following: (1) A copy of any facility preplans; (2) a copy of the state or local agency's hazardous materials emergency response plan; (3) a statement describing the local agency's level of hazardous materials training; (4) a description of the resources available locally to support hazardous materials response actions; and (5) any other information reasonably needed by the requesting team. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.)
HazMat, Advisory Committee, (Regional HazMat) Teams	**K.A.R. 22-24-18 KFMO**	**Advisory committee.** A hazardous materials advisory committee may be appointed by the state fire marshal to provide input and assistance to the hazardous materials program and act as advisor to the state fire marshal and the director of the division. The committee shall meet periodically as determined by the state fire marshal. (Authorized by and implementing K.S.A. 31-133 and 31-135; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.)

HazMat, Emergency, Emergency Number	**K.S.A 31-165**	Toll-free number; hazardous materials incidents. The state fire marshal may provide a toll-free telephone number where persons may call the state fire marshal to request a response to a hazardous materials incident. History: L. 1999, ch. 65, § 2; July 1.
HazMat, Exemptions, Agricultural Operations	**49 CFR 173.5**	**Agricultural operations.** (a) For other than a Class 2 material, the transportation of an agricultural product over local roads between fields of the same farm is excepted from the requirements of this subchapter. A Class 2 material transported over local roads between fields of the same farm is excepted from subparts G and H of part 172 of this subchapter. In either instance, transportation of the hazardous material is subject to the following conditions: (1) It is transported by a farmer who is an intrastate private motor carrier; and (2) The movement of the agricultural product conforms to requirements of the State in which it is transported and is specifically authorized by a State statute or regulation in effect before October 1, 1998. (b) The transportation of an agricultural product to or from a farm, within 150 miles of the farm, is excepted from the requirements in subparts G and H of part 172 of this subchapter and from the specific packaging requirements of this subchapter when: (1) It is transported by a farmer who is an intrastate private motor carrier; (2) The total amount of agricultural product being transported on a single motor vehicle does not exceed: (i) 7,300 kg (16,094 lbs.) of ammonium nitrate fertilizer properly classed as Division 5.1, PG III, in a bulk packaging, or (ii) 1900 L (502 gallons) for liquids or gases, or 2,300 kg (5,070 lbs.) for solids, of any other agricultural product; (3) The movement and packaging of the agricultural product conform to the requirements of the State in which it is transported and are specifically authorized by a State statute or regulation in effect before October 1, 1998; and (4) Each person having any responsibility for transporting the agricultural product or preparing the agricultural product for shipment has been instructed in the applicable requirements of this subchapter. (c) Formulated liquid agricultural products in specification packagings of 220 L (58 gallons) capacity, or less, with closures manifolded to a closed mixing system and equipped with positive dry disconnect devices may be transported by a private motor carrier between a final distribution point and an ultimate point of application or for loading aboard an airplane for aerial application. (d) Moveable fuel storage tenders. A non-DOT specification cargo tank motor vehicle may be used to transport Liquefied petroleum gas, UN1075, including Propane, UN1978, as moveable fuel storage tender used exclusively for agricultural purposes when operated by a private carrier under the following conditions: (1) The cargo tank must have a minimum design pressure of 250 psig. (2) The cargo tank must meet the requirements of the HMR in effect at the time of its manufacture and must be marked accordingly. For questions regarding these requirements, contact PHMSA by either:

		(i) Telephone (800) 467-4922 or (202) 366-4488 (local); or (ii) By electronic mail (e-mail) to: infocntr@dot.gov. (3) The cargo tank must have a water capacity of 1,200 gallons or less. (4) The cargo tank must conform to applicable requirements in National Fire Protection Association (NFPA) 58, Liquefied Petroleum Gas Code (IBR, see § 171.7 of this subchapter). (5) The cargo tank must be securely mounted on a motor vehicle. (6) The cargo tank must be filled in accordance with § 173.315(b) for liquefied petroleum gas. (7) The cargo tank must be painted white, aluminum, or other light-reflecting color. (8) Transportation of the filled moveable fuel storage tender is limited to movements over local roads between fields using the shortest practical distance. (9) Transportation of the moveable fuel storage tender between its point of use and a liquefied petroleum gas distribution facility is authorized only if the cargo tank contains no more than five percent of its water capacity. A movable fuel storage tender may only be filled at the consumer's premises or point of use. (e) Liquid soil pesticide fumigants. MC 306 and DOT 406 cargo tank motor vehicles and DOT 57 portable tanks may be used to transport liquid soil pesticide fumigants, Pesticides, liquid, toxic, flammable, n.o.s., flash point not less than 23 degrees C, 6.1, UN2903, PG II, exclusively for agricultural operations by a private motor carrier between a bulk loading facility and a farm (including between farms). However, transportation is not to exceed 150 miles between the loading facility and the farm, and not more than five days are permitted for intermediate stops for temporary storage. Additionally, transport is permitted only under the following conditions: (1) Cargo tanks. MC 306 and DOT 406 cargo tank motor vehicles must: (i) Meet qualification and maintenance requirements (including periodic testing and inspection) in accordance with Subpart E of Part 180 of this subchapter; (ii) Conform to the pressure relief system requirements specified in § 173.243(b)(1); (iii) For MC 306 cargo tanks, be equipped with stop-valves capable of being remotely closed by manual and mechanical means; and (iv) For DOT 406 cargo tanks, conform to the bottom outlet requirements specified in § 173.243(b)(2). (2) Portable tanks. DOT 57 portable tanks must— (i) Be constructed of stainless steel; and (ii) Meet qualification and maintenance requirements of Subpart G of Part 180 of this subchapter. (f) See § 173.315(m) pertaining to nurse tanks of anhydrous ammonia. (g) See § 173.6 pertaining to materials of trade. (h) See § 172.800(b) pertaining to security plans. [Amdt. 173-259, 62 FR 1215, Jan. 8, 1997, as amended by Amdt. 173-262, 62 FR 49566, Sept. 22, 1997; Amdt. 173-259, 63 FR 8142, Feb. 18, 1998; 65 FR 50460, Aug. 18, 2000; 70 FR 73165, Dec. 9, 2005; 73 FR 4717, Jan. 28, 2008; 76 FR 5491, Feb. 1, 2011]
HazMat, Extremely Hazardous	**Pub. L. 99–499, title III, §329, Oct. 17, 1986, 100 Stat. 1757.**	**(3) Extremely hazardous substance** The term ‘‘extremely hazardous substance’’ means a substance on the list described in section 11002(a)(2) of this title.

Chemicals, Definition		
HazMat, Facilities, Standards (Pending)	**6 U.S.C. 101 et seq.**	**Action Pending - Homeland Security Act of 2002** Amendment to include the ''Chemical Facility Anti-Terrorism Standards Program Authorization and Accountability Act of 2014''. Sec. 2. Chemical Facility Anti-Terrorism Standards Program. Amendment codifies and strengthens the Department of Homeland Security's CFATS program, which issues and enforces security standards for high-risk chemical facilities.
HazMat, Flammable and Combustible Liquids, Application and Checklist	**K.S.A Article 7 22-7-6**	**Flammable and Combustible Liquids** Flammable and combustible liquids; applications and checklists. The state fire marshal shall make available on request applications, guidelines, checklists, procedures, applicable regulations and the like regarding the safe storage, use and sale of flammable and combustible liquids as well as the installation and maintenance of related tanks, piping, valves and dispensers. (Authorized by and implementing K.S.A. 1991 Supp. 31-133; effective May 10, 1993.)
HazMat, Flammable Liquid Storage, Approval of Plans, Handling and Use	**K.S.A 22-7-7**	**Approval of plans.** (a) Except as otherwise provided in this section, before the construction or modification of any installation for the storage, handling or use of flammable liquids is undertaken, drawings or blueprints made to scale shall be submitted to the state fire marshal with an application, all in duplicate, for approval. Within a reasonable time after receipt of the application with drawings or blueprints, the state fire marshal shall examine the plans and, if found to conform to applicable requirements of the Kansas Fire Prevention Code, shall signify approval of the application either by endorsement thereon or by attachment thereto, retain one copy for the files and forward the second copy to the Kansas Department of Health and Environment for their required approvals and eventual re- turn to the requestor. If the drawings or blueprints do not indicate conformity with the applicable requirements of the Kansas Fire Prevention Code, the state fire marshal shall notify the applicant accordingly. Plans and applications shall be submitted postage paid to the address specified by the state fire marshal. (b) The plans approval requirements applies to the following: (1) Each new installation of tanks containing flammable or combustible liquids in the following amounts: (A) Any state, county or local governmental unit installing tanks of 660 gallons or more capacity; (B) any Industrial or Business company installing tanks of 660 gallons or more capacity; (C) any agricultural farm installation of tanks of 1,100 gallons or more capacity; and (D) any tank installed for the retail sale of flammable or combustible product through dispenser devices; (2) any modifications to or replacements of tanks or piping at any establishment or facility meeting the requirements of (1); and (3) any installation of new dispenser locations at any establishments or facility meeting the requirements of (1). This does not include the routine replacement of dispensers at existing sites. (c) This plans approval requirements is in addition to any local jurisdiction requirements necessary to meet local zoning or permit approval and additional local requirements. In the event of a dispute as to whether or not the drawings or blueprints show conformity with the applicable requirements of these regulations, the local decision can be appealed to the state fire marshal in accordance with statutory provisions.

		(d) All submitted drawings shall include the following minimum information: (1) The name of the person, firm, or corporation proposing the installation, the location thereof and the adjacent streets or highways; (2) for bulk plants, in addition to any applicable features required under (4) and (5) of this section, the plot of ground to be utilized and its immediate surroundings, including any structures of value located on adjacent properties within 100 feet of the property line, on all sides, the complete layout of buildings, tanks, loading and unloading docks, and the types of construction of each building; (3) for service stations, in addition to any applicable features required under (4) and (5) of this section, the plot of ground to be utilized and the complete layout of buildings, drives, and dispensing equipment; (4) for above ground storage, the location and capacity of each tank, the dimensions of each tank, the class and name of liquid to be stored in each tank, the type of any tank supports, the types and sizes of normal and emergency valves, and the location of pumps and other facilities by which the tanks are filled or drained; (5) in the case of underground storage, the loca- tion and capacity of each tank, the class and name of liquid to be stored in each tank, and the location of fill, gauge and vent pipes and openings; and (6) in the case of installation for storage, handling or use of flammable liquids within the buildings or enclosures at any establishment or occupancy covered in this section, such detail as to show whether applicable requirements are met. (Authorized by and implementing K.S.A. 1991 Supp. 31-133; effective May 10, 1993.)
HazMat, Hazardous Chemicals, Definition	**Pub. L. 99–499, title III, §329, Oct. 17, 1986, 100 Stat. 1757.**	**(e) ‘‘Hazardous chemical’’ defined** For purposes of this section, the term ‘‘hazardous chemical’’ has the meaning given such term by section 1910.1200(c) of title 29 of the Code of Federal Regulations, except that such term does not include the following: (1) Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration. (2) Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use. (3) Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public. (4) Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual. (5) Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer. (Pub. L. 99–499, title III, §311, Oct. 17, 1986, 100 Stat. 1736.) REFERENCES IN TEXT The Occupational Safety and Health Act of 1970, referred to in subsecs. (a)(1), (2)(A)(i), (B) and (d)(1)(B), is Pub. L. 91–596, Dec. 29, 1970, 84 Stat. 1590, as amended, which is classified principally to chapter 15 (§651 et seq.) of Title 29, Labor. For complete classification of this Act to the Code, see Short Title note set out under section 651 of Title 29 and Tables.

Hazmat, Placarding Requirements	**49 CFR 172.504**	**Transportation, Subtitle B - Other Regulations Relating to Transportation** **Chapter I - Pipeline And Hazardous Materials Safety Administration, Department Of Transportation.** **Subchapter C - Hazardous Materials Regulations** **Part 172 - Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, And Security Plans. Subpart F - Placarding** **Section 172.504 - General placarding requirements. October 1, 2011.** **§ 172.504 General placarding requirements.** (a) General. Except as otherwise provided in this subchapter, each bulk packaging, freight container, unit load device, transport vehicle or rail car containing any quantity of a hazardous material must be placarded on each side and each end with the type of placards specified in tables 1 and 2 of this section and in accordance with other placarding requirements of this subpart, including the specifications for the placards named in the tables and described in detail in §§172.519 through 172.560. (b) DANGEROUS placard. A freight container, unit load device, transport vehicle, or rail car which contains non-bulk packages with two or more categories of hazardous materials that require different placards specified in table 2 of paragraph (e) of this section may be placarded with a DANGEROUS placard instead of the separate placarding specified for each of the materials in table 2 of paragraph (e) of this section. However, when 1,000 kg (2,205 pounds) aggregate gross weight or more of one category of material is loaded therein at one loading facility on a freight container, unit load device, transport vehicle, or rail car, the placard specified in table 2 of paragraph (e) of this section for that category must be applied. (c) Exception for less than 454 kg (1,001 pounds). Except for bulk packagings and hazardous materials subject to §172.505, when hazardous materials covered by table 2 of this section are transported by highway or rail, placards are not required on— (1) A transport vehicle or freight container which contains less than 454 kg (1001 pounds) aggregate gross weight of hazardous materials covered by table 2 of paragraph (e) of this section; or (2) A rail car loaded with transport vehicles or freight containers, none of which is required to be placarded. The exceptions provided in paragraph (c) of this section do not prohibit the display of placards in the manner prescribed in this subpart, if not otherwise prohibited (see § 172.502), on transport vehicles or freight containers which are not required to be placarded. (d) Exception for empty non-bulk packages. Except for hazardous materials subject to § 172.505, a non-bulk packaging that contains only the residue of a hazardous material covered by Table 2 of paragraph (e) of this section need not be included in determining placarding requirements. (e) Placarding tables. Placards are specified for hazardous materials in accordance with the following tables: Table 1 Category of material (Hazard class or division number and additional description, as appropriate) Placard name Placard design section reference (§) 1.1 EXPLOSIVES 1.1 172.522 1.2 EXPLOSIVES 1.2 172.522 1.3 EXPLOSIVES 1.3 172.522

		2.3 POISON GAS 172.540 4.3 DANGEROUS WHEN WET 172.548 5.2 (Organic peroxide, Type B, liquid or solid, temperature controlled) ORGANIC PEROXIDE 172.552 6.1(material poisonous by inhalation (see § 171.8 of this subchapter)) POISON INHALATION HAZARD 172.555 7 (Radioactive Yellow III label only) RADIOACTIVE 1 172.556 1 RADIOACTIVE placard also required for exclusive use shipments of low specific activity material and surface contaminated objects transported in accordance with § 173.427(b)(4) and (5) or (c) of this subchapter. Code of Federal Regulations373 Table 2 Category of material (Hazard class or division number and additional description, as appropriate) Placard name Placard design section reference (§) 1.4 EXPLOSIVES 1.4 172.523 1.5 EXPLOSIVES 1.5 172.524 1.6 EXPLOSIVES 1.6 172.525 2.1 FLAMMABLE GAS 172.532 2.2 NON-FLAMMABLE GAS 172.528 3 FLAMMABLE 172.542 Combustible liquid COMBUSTIBLE 172.544 4.1 FLAMMABLE SOLID 172.546 4.2 SPONTANEOUSLY COMBUSTIBLE 172.547 5.1 OXIDIZER 172.550 5.2 (Other than organic peroxide, Type B, liquid or solid, temperature controlled) ORGANIC PEROXIDE 172.552 6.1(other than material poisonous by inhalation) POISON 172.554 6.2 (None) 8 CORROSIVE 172.558 9 Class 9 (see § 172.504(f)(9)) 172.560 ORM-D (None) (f) Additional placarding exceptions. (1) When more than one division placard is required for Class 1 materials on a transport vehicle, rail car, freight container or unit load device, only the placard representing the lowest division number must be displayed. (2) A FLAMMABLE placard may be used in place of a COMBUSTIBLE placard on— (i) A cargo tank or portable tank. (ii) A compartmented tank car which contains both flammable and combustible liquids. (3) A NON-FLAMMABLE GAS placard is not required on a transport vehicle which contains non-flammable gas if the transport vehicle also contains flammable gas or oxygen and it is placarded with FLAMMABLE GAS or OXYGEN placards, as required.

		(4) OXIDIZER placards are not required for Division 5.1 materials on freight containers, unit load devices, transport vehicles or rail cars which also contain Division 1.1 or 1.2 materials and which are placarded with EXPLOSIVES 1.1 or 1.2 placards, as required. (5) For transportation by transport vehicle or rail car only, an OXIDIZER placard is not required for Division 5.1 materials on a transport vehicle, rail car or freight container which also contains Division 1.5 explosives and is placarded with EXPLOSIVES 1.5 placards, as required. (6) The EXPLOSIVE 1.4 placard is not required for those Division 1.4 Compatibility Group S (1.4S) materials that are not required to be labeled 1.4S. (7) For domestic transportation of oxygen, compressed or oxygen, refrigerated liquid, the OXYGEN placard in § 172.530 of this subpart may be used in place of a NON-FLAMMABLE GAS placard. (8) For domestic transportation, a POISON INHALATION HAZARD placard is not required on a transport vehicle or freight container that is already placarded with the POISON GAS placard. (9) For Class 9, a CLASS 9 placard is not required for domestic transportation, including that portion of international transportation, defined in § 171.8 of this subchapter, which occurs within the United States. However, a bulk packaging must be marked with the appropriate identification number on a CLASS 9 placard, an orange panel, or a white square-on-point display configuration as required by subpart D of this part. (10) For Division 6.1, PG III materials, a POISON placard may be modified to display the text "PG III" below the mid line of the placard. (11) For domestic transportation, a POISON placard is not required on a transport vehicle or freight container required to display a POISON INHALATION HAZARD or POISON GAS placard. (g) For shipments of Class 1 (explosive materials) by aircraft or vessel, the applicable compatibility group letter must be displayed on the placards, or labels when applicable, required by this section. When more than one compatibility group placard is required for Class 1 materials, only one placard is required to be displayed, as provided in paragraphs (g)(1) through (g)(4) of this section. For the purposes of paragraphs (g)(1) through (g)(4), there is a distinction between the phrases explosive articles and explosive substances. Explosive article means an article containing an explosive substance; examples include a detonator, flare, primer or fuse. Explosive substance means a substance contained in a packaging that is not contained in an article; examples include black powder and smokeless powder. (1) Explosive articles of compatibility groups C, D or E may be placarded displaying compatibility group E. (2) Explosive articles of compatibility groups C, D, or E, when transported with those in compatibility group N, may be placarded displaying compatibility group D. (3) Explosive substances of compatibility groups C and D may be placarded displaying compatibility group D. (4) Explosive articles of compatibility groups C, D, E or G, except for fireworks, may be placarded displaying compatibility group E. [Amdt. 172-123, 55 FR 52600, Dec. 21, 1990] ***Table 1 is any amount and table 2 is 1000 lbs.***
HazMat, Planning,	**KDEM, based on EPCRA, Title 42, Chapter 116**	**Emergency Planning.**

Emergencies, Requirements, Federal, EPRCA		Under the Emergency Planning and Community Right-to-Know Act (EPCRA), Local Emergency Planning Committees (LEPCs) must develop an emergency response plan, review the plan at least annually, and provide information about chemicals in the community to citizens. Plans are developed by LEPCs with stakeholder participation. There is one LEPC for each of the more than 3,000 designated local emergency planning districts. The LEPC membership must include (at a minimum): • Elected state and local officials. • Police, fire, civil defense, and public health professionals. • Environment, transportation, and hospital officials. • Facility representatives. • Representatives from community groups and the media.
HazMat, Planning, Local Government, Standards	**KDEM**	**HazMat Planning, Kansas Requirements** • Kansas integrated the EPCRA planning requirements into the planning requirements of the County (also known as Local) Emergency Operations Plans (CEOPs or LEOPs). • The CEOPs or LEOPs are required to include a chapter called Emergency Support Function (ESF) 10, Hazardous Materials. This Chapter must meet specific requirements contained in the EPCRA, and make reference to key information found elsewhere in the document. **Emergency Plans, Standards** KDEM has published the **Kansas Planning Standards**, a guide designed to help local officials achieve compliance with state and federal requirements. Hazardous Materials, ESF #10 Chapter of the standards is online at http://www.kansastag.gov/AdvHTML_doc_upload/ESF%2010-%20Oil%20and%20Hazardous%20Materials.pdf.
HazMat, Planning, Oversight of LEPCs and Local Plans	**K.S.A 65-5722.**	**CEPR Same; powers and duties.** The commission on emergency planning and response shall have the following functions, powers and duties: (a) Carry out all requirements of the federal emergency planning and community right-to-know act of 1986, 42 U.S.C. 11001-11005, and amendments thereto, hereinafter called the "federal act"; (b) provide assistance and advice in establishing policy for the coordination of state agency activities relating to emergency training, preparedness, planning, and response; (c) provide assistance and advice in establishing policy and procedures for chemical release reporting and prevention, transportation, manufacture, storage, handling, and use; (d) facilitate and advise the division of emergency management, the adjutant general, and others in the preparation and implementation of all emergency plans prepared by state agencies; (e) facilitate and advise the division of emergency management, the adjutant general, and others in the preparation and implementation of statewide, interjurisdictional, and local emergency plans prepared in accordance with state and federal law; (f) designate, and revise as necessary, the boundaries of emergency planning districts in accordance with the federal act; (g) approve the local emergency planning committee for each emergency planning district;

		(h) review reports about responses to disaster emergencies and make recommendations to the appropriate parties involved in the response concerning improved prevention, mitigation, and preparedness; (i) provide assistance and advice to the division of emergency management and the adjutant general in coordinating, advising, or planning tasks related to community right-to-know reporting, toxic chemical release reporting, management of hazardous substances, emergency planning and preparedness for all types of hazards and emergency planning and preparedness for all types of disasters, as defined in K.S.A. 48-904, and amendments thereto; (j) recommend procedures to integrate, as appropriate, hazardous substance response planning under 42 U.S.C. 11001-11005, federal contingency planning under 33 U.S.C. 1321 and other federal laws as applicable to hazardous substance discharges, and state, regional, and local planning; (k) provide recommendations and advice to the adjutant general and the secretary of health and environment regarding the adoption of regulations as authorized to carry out the purposes of all state hazard preparedness and planning laws and the federal act, 42 U.S.C. 11001-11005; (l) approve the fees established by rules and regulations of the adjutant general to cover all or part of the total operational costs of implementing the provisions of the federal act; and (m) provide assistance and advice to the division of emergency management and the adjutant general in developing and implementing a plan for regional emergency medical response teams.

HazMat, Release, Facilities, After Action Reports, Requirements	**40 CFR Section 355.40 (b)(3)(i)(ii)(iii))**	Facility owners or operators must provide a written follow- up emergency notice as soon as practicable, within 7 working days, after the release has concluded. The follow- up notice(s) must:
		• Update information included in the initial notification;
		• Provide information on:
		  ○ Actions taken to respond to and contain the release.
		  ○ Any known or anticipated acute or chronic health risks associated with the release.
		  ○ Advice regarding medical attention necessary for exposed individuals.

HazMat, Release, Facilities, Initial Notification, Requirements	**40 CFR Section 304**	The initial notification of a hazardous material or extremely hazardous substance release should be made verbally to the NRC, SERC and the LEPC. Following are the numbers that should be used when making the initial verbal notification: • CEPR, 24-hour emergency number (800) 905-7521 or (785) 296-3176; both numbers will go to the paging system and a HazMat Duty Officer will return the call; • Local Emergency Planning Committee (LEPC) or Local Emergency Coordinator/Manager; reference county program • National Response Center (800) 424-8802; IF the release poses an immediate threat to life or the environment notification should not be delayed if all of the required information is not available: • An initial (partial) notification should be made so that the LEPC and CEPR are prepared to provide guidance to support the incident if necessary. • As soon as practical after an initial notification, all required information must be assembled and transmitted.

		• Notification of a release includes ANY QUANTITY of a hazardous substance(s) that leaves the boundaries of a facility that could affect life and environment, it is not limited to the entire quantity identified under reportable quantities of Sections 302 and 304.
HazMat, Release, Facilities, Regulated Substances	**KDEM based on 40 CFR 355, CERCLA Section 103(a)(40 CFR 302.4**	Substances subject to this requirement are those on the list of 360 extremely hazardous substances as well as the more than 700 hazardous substances subject to federal emergency notification requirements. Some chemicals are common to both lists.
HazMat, Release, Facilities, Regulated Substances, Notification Requirements	**KDEM based on CERCLA, 40 CFR Section 302.6 Notification Requirements**	(a) Any person in charge of a vessel or an offshore or an onshore facility shall, as soon as he has knowledge of any release (other than a federally permitted release or application of a pesticide) of a hazardous substance from such vessel or facility in a quantity equal to or exceeding the reportable quantity determined by this part in any 24-hour period, immediately notify the National Response Center (NRC) (800) 424-8802. NRC will then notify other federal agencies and/or responders
HazMat, Release, Notification, Form A	**KDEM**	Kansas requires the use of a spill notification called a "Form A", for hazardous materials incidents, accidental releases and continuous release notifications. The use of the "Form A" is recommended for reporting hazardous material release incidents, orphan drums (drums or containers of chemicals dumped at the side of the road), unknown spills, citizen complaints, etc. • "Form A's" may be faxed into the Kansas Division of Emergency Management (785) 274-1426 and the County Emergency Manager. • The **Initial Notification** of a HazMat release must be made **verbally via telephone, radio or in person**. • After January 2002, the **Initial Notification** may be updated and used in lieu of an **After Action Report** for an incident. ○ This applies **ONLY IF** it is updated after the incident has concluded, and includes all the information required in the **"After Actions Report" Section**. • The information regarding **Recommended Medical Attention** for exposed individuals must be attached **separately** to the "**Form A**".
HazMat, Release, Transportation, Reporting	**KDEM**	A transportation-related release is defined as a release during transportation, or storage incident to transportation if the stored substance is moving under active shipping papers and has not reached the receiving party. • When a transportation-related release occurs notification is initiated by calling 911, or in the absence of a 911 emergency telephone number, to the operator. • All emergency notification requirements remain the same as for Facilities, HazMat Release, **Emergency Notification**, **Initial Notification**, and **After Action Reports**.
HazMat, Response, Assistance, Regional HazMat Teams	**K.A.R. Article 24. – 22-24-9 KFMO**	**Regional Hazardous Materials Response** **Emergency response assistance.** Any emergency response team may secure for use during an emergency response any technical assistance or specialized equipment necessary to safely and properly respond to an incident. When the incident involves explosives, explosive devices, incendiary devices, or shock-sensitive explosive

		chemicals, the team shall request assistance from a qualified bomb squad, an explosive ordnance disposal unit, or an alcohol, tobacco, and firearms unit. No emergency response team member shall take any action except as directed by the responding explosives unit. The costs associated with the activation of a bomb squad, an explosive ordnance disposal unit, or an alcohol, tobacco, and firearms unit shall not be recoverable from the hazardous materials emergency response program. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002)
HazMat, Response, Coordination, (Regional Hazmat) Teams	**K.A.R. Article 24. 22-24-15. KFMO**	**–Regional Hazardous Materials Response** **Coordinating emergency response activities.** (a) The local authority that has jurisdiction and that requested the emergency response shall provide all necessary assistance to the emergency response team. The emergency response team commander shall coordinate with those local, state, or federal agencies, or other organizations that are on the scene or providing assistance. (b) Mutual aid agreements, interlocal agreements, or other forms of written agreements with local, state, or federal agencies within and without this state may be entered into by the state fire marshal to mutually support and foster assistance in response to hazardous materials incidents. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.) 22-24-16. Liability. Each member of each emergency response team shall be considered a state employee for purposes of coverage under the tort claims act, K.S.A. 75-6101 et seq. and amendments thereto, upon activation by the state fire marshal for an emergency response or in connection with authorized training. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.)
Hazmat, Response, Cost Recovery, (Regional HazMat) Teams	**K.A.R. Article 24. 22-24-14 KFMO**	**Regional Hazardous Materials Response** **Cost Recovery.** (a) When an emergency response team is activated to respond to a hazardous materials incident, the party responsible for the hazardous materials shall be responsible for paying the costs incurred as a result of the team's emergency response. The responsible party shall be billed by the state fire marshal for these costs in a summary order. If the responsible party fails to pay the bill in full within 30 days of its issue, a second billing shall be issued by the state fire marshal. The second billing and any subsequent billings shall include interest on the unpaid balance. If payment is not made in full within 60 days of the initial billing, the responsible party shall be contacted by the state fire marshal in an effort to obtain payment. If the matter remains unresolved, legal action shall be brought to recover the costs of the response, any legal fees, and other related expenses, including reasonable attorney's fees. (b) Within 30 days of the original billing issued as a summary order, any responsible party who disagrees with a billing for costs incurred as a result of an emergency response may request a hearing, which shall be conducted in accordance with the Kansas administrative procedure act, K.S.A. 77-501 et seq., and amendments thereto. The request for a hearing shall specifically identify the portion of the billing that is disputed and the factual basis of that dispute. Any remaining portion of the bill that is undisputed shall be paid in accordance with subsection (a). (Authorized by and implementing K.S.A. 310133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002)

HazMat, Response, Criteria and Dispatch, Regional HazMat Teams	**K.A.R. Article 24. 22-24-13 KFMO**	**Regional Hazardous Materials Response** **Emergency response criteria and dispatch.** (a) Each emergency response team shall engage in an emergency response only if it is authorized by the state fire marshal. An emergency response may include technical assistance provided by a team via telephone or other means of communication or the deployment of team personnel and equipment to the scene of a hazardous material incident. An emergency response team response shall be authorized by the state fire marshal whenever it appears necessary to protect life or property from the effects or potential effects of a hazardous materials release. (b) Each decision to authorize an emergency response shall be based on consideration of all of the following criteria: (1) A hazardous materials release has occurred, or there is a significant potential for release. (2) The release or threat of release poses a significant threat to life or property. (3) Local authorities on the scene have determined that the situation exceeds their capabilities. (4) Local authorities are requesting a team response. (c) Only the local incident commander or designee for the jurisdiction in which the scene of the hazardous materials incident is located shall be authorized to request an emergency response team. Each request for an emergency response team shall be made to the state fire marshal. The communications arrangements provided by the state fire marshal shall allow 24-hour-a-day notification of a request for a response. (d) Each team, when authorized to respond under subsection (a), shall evaluate the situation, determine if an emergency response is needed, and act accordingly. Any question or concerns arising out of the team's decisions may be relayed to the division. (e) An emergency response team may be authorized by the state fire marshal to provide standby technical assistance in support of a bomb squad response. A response under this subsection shall be limited to incidents involving explosives, explosive devices, incendiary de- vices, or shock-sensitive explosive chemicals. A bomb squad, an explosive ordnance disposal unit, or an alcohol, tobacco, and firearms unit shall be on the scene. When an emergency response team responds under this subsection, its costs shall be recoverable under the provisions of these regulations. The costs of activation of a bomb squad, an explosive ordnance disposal unit, or an alcohol, tobacco, and firearms unit shall not be recoverable expenses. (f) If an emergency team is en route to an incident, the team's response may be cancelled only by the state fire marshal or by the local incident commander. (g) The emergency response team commander or safety officer may terminate any response action at the scene of a hazardous materials incident when it is deter- mined that response action would place any personnel in imminent danger. A team response may also be terminated at the scene of an incident by order of the local incident commander. (Authorized by and implementing K.S.A. 31- 133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.)
HazMat, Response, Equipment,	**K.A.R Article 24. 22-24-12 KFMO**	**Equipment for chemical assessment teams.** Each chemical assessment team shall have immediate access to the following general categories of supplies and equipment in suitable quantities to respond to anticipated hazardous materials incidents:

Chemical Assessment Teams		(a) Chemical reference and emergency response manuals; (b) personal protective equipment; (c) decontamination equipment and supplies; (d) leak-control supplies and equipment; (e) radios and other forms of communications equipment; (f) monitoring and detection equipment; (g) assorted nonsparking hand tools; (h) basic first aid supplies; and (i) related incident management and administrative supplies and equipment. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002)
HazMat, Response, Regional	**K.A.R. Article 24. 22-24-1 KFMO**	**Regional Hazardous Materials Response** **Definitions.** (a) "Chemical assessment team" (CAT) means either of the following: (1) A type of emergency response team whose primary objective is the assessment of chemical hazards; or (2) those members of a hazardous materials response team whose primary objective is the assessment of chemical hazards. (b) "Division" means the hazardous materials response division of the Kansas state fire marshal's office. (c) "Emergency response team" means a hazardous materials response team or chemical assessment team that has entered into a contract with the state fire marshal's office to provide a response to hazardous materials incidents. (d) "Local authority" means the local unit of government's public safety agency that is in overall command at the scene of a hazardous materials incident. (e) "Local authority" means the local unit of government's public safety agency that is in overall command at the scene of a hazardous materials incident. (f) "Management system" means a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for the management of assigned re- sources to effectively accomplish stated objectives at the scene of an incident. (g) "Mitigation" means the actions taken by an emergency response team to lessen the severity or intensity of a hazardous materials incident. Mitigation shall not include restoration of the scene to its preaccident condition and shall not be interpreted as including cleanup procedures, remediation, or both. (h) "NFPA" means the national fire protection association. (i) "Primary response area" means the geographic portion of the state to which an emergency response team has been assigned to provide the principal response to incidents occurring in that area. (j) "Regional response team program" means the system of regionally located emergency response teams who have contracted with the state fire marshal to provide a response to hazardous materials incidents occurring in that area. (k) "Response area" means the primary or secondary response area of an emergency response team.

		(l) “Secondary response area” means the geo- graphic portion of the state to which an emergency response team has been assigned to provide the alternate response to incidents occurring in that area. (m) “State fire marshal” means the state fire marshal or the state fire marshal’s designee. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25- 01, Oct. 25, 2001; effective Feb. 15, 2002.)
HazMat, Response, Regional HazMat Team, Areas	**K.A.R. Article 24. 22-24-2 KFMO**	**Regional Hazardous Materials Response Team response areas.** (a) The primary and secondary response areas for each emergency response team shall be established by the state fire marshal. Each team shall be assigned at least one secondary area. (b) The factors used by the state fire marshal in establishing these primary and secondary response areas shall include the following: (1) The number and geographic location of fixed facilities manufacturing, using, or storing hazardous materials that may pose a threat to life or property if released; (2) the number of miles of primary transportation routes in a given area, including highways, rail lines, commercially navigable waterways, pipelines, and airports; (3) the population of each county; (4) any special conditions that may be present in a given area of the state and the need for specialized equipment unique to those conditions that might affect emergency response capability; (5) the existing local capabilities for dealing with hazardous materials incidents; and (6) any other factor that could contribute to the potential for a hazardous materials release that could threaten life or property, thus meriting an emergency response. (c) The boundaries of each response area shall be reviewed and, if needed, adjusted by the state fire marshal at least every two years. The adjustment of boundaries shall not be modified, conditioned, or limited by any collective bargaining agreement or memorandum of agreement. (d) Each emergency response team shall respond to any area of the state when directed to do so by the state fire marshal. (Authorized by and implementing K.S.A. 31- 133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.) 22-24-3. Adoption by reference. (a) The following nationally recognized standards are hereby adopted by reference: (1) “Recommended practice for responding to hazardous materials incidents,” national fire protection association pamphlet no. 471 (NFPA 471), including appendices, 1997 edition; (2) “standard on professional competence of responders to hazardous materials incidents,” national fire protection association pamphlet no. 472 (NFPA 472), including appendices, but excluding chapters 7, 8, 9, 10, and 11, 1997 edition; and (3) “standard for competencies for EMS personnel responding to hazardous materials incidents,” national fire protection association pamphlet no. 473 (NFPA 473), including appendices, 1997 edition. (b) Each team member shall comply with the pro- visions of “hazardous waste operations and emergency response,” 29 C.F.R. 1910.120(q), as in effect on March 7, 1996, and hereby adopted by reference. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25-01, Oct. 25,2001; effective Feb. 15, 2002.)

HazMat, Response, Regional Hazmat Team, Member Qualifications	**K.A.R. Article 24. 22-24-4 KFMO**	**Regional Hazardous Materials Response** **Qualifications of team members.** (a) Each member of each emergency response team shall successfully complete annual refresher training that meets or exceeds the continuing education requirements of 29 C.F.R. 1910.120(q)(8). (b) Each employer of one or more emergency response team members shall document all hazardous material training and continuing education, and these records shall be made available to the state fire marshal upon re- quest. Each employer of one or more emergency response team members shall annually certify to the state fire marshal in writing that each team member has met the medical requirements of 29 C.F.R. 1910.120(q)(9) and the educational requirements of 29 C.F.R. 1910.120(q)(6)(I), (ii), and (iii). (c) Any of the training or educational requirements identified in these regulations may be waived by the state fire marshal, and a substitute requirement or standard issued by the occupational safety and health administration or the NFPA may be approved by the state fire marshal, if the substitute requirement or standard is equivalent to, meets, or exceeds the requirement to be replaced. (Authorized by and implementing K.S.A. 31-133; effective, T-22- 10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.) 22-24-5. Composition of teams. (a) Each hazardous materials response team shall consist of at least nine members who possess the qualifications established by K.A.R. 22- 24-3 and K.A.R. 22-24-4. A minimum of four members shall be available for response at any time. (b) Each chemical assessment team shall consist of at least six members who possess the qualifications established by K.A.R. 22-24-3 and K.A.R. 22-24-4. A minimum of three members shall be available for response at any time. (c) Each emergency response team member shall be certified by that individual's employer as meeting the qualifications for hazardous materials technicians established by NFPA 472. Each emergency response team member assigned to provide emergency medical support shall be certified by that individual's employer as meeting the qualifications for a level II responder or a higher level as defined by NFPA 473 and shall be currently certified or registered as an emergency medical technician by the state of Kansas board of emergency medical services. (d) Emergency response teams may consist of personnel from one or more public or nonpublic entities. Each team shall designate a single point of contact for purposes of emergency dispatch, a single authority for contract administration, and the employer responsible for the employer requirements set out in these regulations. (Authorized by and implementing K.S.A. 31-133; effective, T-22- 10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.)

HazMat, Response, Regional, Definitions	**K.A.R. Article 24. 22-24-1 KFMO**	**Regional Hazardous Materials Response** **Definitions.** (a) "Chemical assessment team" (CAT) means either of the following: (1) A type of emergency response team whose primary objective is the assessment of chemical hazards; or (2) those members of a hazardous materials response team whose primary objective is the assessment of chemical hazards. (b) "Division" means the hazardous materials response division of the Kansas state fire marshal's office. (c) "Emergency response team" means a hazardous materials response team or chemical assessment team that has entered into a contract with the state fire marshal's office to provide a response to hazardous materials incidents. (d) "Local authority" means the local unit of government's public safety agency that is in overall command at the scene of a hazardous materials incident. (e) "Local authority" means the local unit of government's public safety agency that is in overall command at the scene of a hazardous materials incident. (f) "Management system" means a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for the management of assigned re- sources to effectively accomplish stated objectives at the scene of an incident. (g) "Mitigation" means the actions taken by an emergency response team to lessen the severity or intensity of a hazardous materials incident. Mitigation shall not include restoration of the scene to its preaccident condition and shall not be interpreted as including cleanup procedures, remediation, or both. (h) "NFPA" means the national fire protection association. (i) "Primary response area" means the geographic portion of the state to which an emergency response team has been assigned to provide the principal response to incidents occurring in that area. (j) "Regional response team program" means the system of regionally located emergency response teams who have contracted with the state fire marshal to provide a response to hazardous materials incidents occurring in that area. (k) "Response area" means the primary or secondary response area of an emergency response team. (l) "Secondary response area" means the geo- graphic portion of the state to which an emergency response team has been assigned to provide the alternate response to incidents occurring in that area. (m) "State fire marshal" means the state fire marshal or the state fire marshal's designee. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25- 01, Oct. 25, 2001; effective Feb. 15, 2002.)
HazMat, Response, Reporting and Documentation, Regional HazMat Teams	**K.A.R. Article 24. 22-24-7 KFMO**	**Regional Hazardous Materials Response** **Reporting and documentation.** (a) Each emergency response team shall submit to the state fire marshal's office a detailed report of its response to each incident. The report shall be prepared in a manner and on a form prescribed by the state fire marshal and shall include the following data: (1) A list of all equipment used and the personnel who responded; (2) a description of all emergency actions taken;

		(3) a copy of the site safety plans developed during the response; and (4) completed cost-recovery forms. (b) When an emergency response has been activated, the emergency response team commander shall notify the Kansas department of health and environment and the Kansas division of emergency management that an incident has occurred. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.)
HazMat, Response, Responsibilities, Regional HazMat Team, Chemical Assessment Team	**K.A.R. Article 24. 22-24-6 KFMO**	**Regional Hazardous Materials Response** **Responsibilities of teams.** (a) As its primary responsibility, each hazardous materials response team shall assist local authorities by recommending emergency actions necessary to protect life and property from the effects of a release of a hazardous material. These emergency actions may include preventing releases, mitigating a re- lease, stabilizing the situation, and any other actions necessary to control the incident. (b) As its primary responsibility, each chemical assessment team shall assist local authorities by providing technical advice and recommending mitigation actions to local incident commanders. Each chemical assessment team may assist the hazardous materials response team by responding in conjunction with them, assessing the chemical issues, and assisting in the formulation of strategies to mitigate or prevent incidents. The chemical assessment team may mitigate the effects of a release and stabilize the situation after contacting the hazardous materials response team and obtaining advice when necessary. (c) When requested by the local incident commander and approved by the emergency response team commander, the emergency response team may remain at the scene and provide continuing assistance by monitoring cleanup activity conducted by local, state, or federal agencies or private entities for the purpose of ensuring public safety. The emergency response team shall not be required to remain at the scene. If the emergency response team remains, the team's costs shall be recoverable costs against the responsible party as provided in K.A.R. 22-24-14. (d) An emergency response team shall not take any of the following actions: (1) Transport, store, dispose of, or perform remedial cleanup of hazardous materials, except as may be incidentally necessary to mitigate an emergency; (2) assume overall command of the hazardous materials incident, except that the team shall establish a joint command comprised of the local incident commander and the emergency response team commander if local authorities do not have incident command training; or (3) mitigate incidents involving explosives, explosive devices, incendiary devices, shock-sensitive explosive chemicals, or clandestine drug labs, except to respond to the effects of a hazardous materials release that has occurred as a consequence of these incidents. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25- 01, Oct. 25, 2001; effective Feb. 15, 2002.)
HazMat, Response, Review and Evaluation of Assistance,	**K.A.R. Article 24. 22-24-10 KFMO**	**Regional Hazardous Materials Response** **Review and evaluation of response. Each emergency response team shall conduct an evaluation of its response to each incident after termination of the team's response.** The team shall give all public and private agencies involved in the response the opportunity to participate in the evaluation. The team shall prepare a written report following completion of the

Regional HazMat Teams		evaluation, a copy of which shall be provided to the state fire marshal within 45 days after termination of the team's response. For good cause shown, the length of the time in which the report is submit- ted may be extended by the state fire marshal for an additional 90 days. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.)
HazMat, Response, Supplies, Equipment and Vehicles, Regional HazMat Teams	**K.A.R. Article 24. 22-24-11 KFMO**	**Regional Hazardous Materials Response** **Supplies, equipment, and vehicles for hazardous materials response teams. Each hazardous materials response team shall have immediate access to the following general categories of supplies and equipment in suitable quantities to respond to anticipated hazardous materials incidents:** (a) Chemical reference and emergency response manuals; (b) personal protective equipment; (c) decontamination equipment and supplies; (d) leak-control supplies and equipment; (e) radios and other forms of communications equipment; (f) computer equipment and supporting software; (g) monitoring and detection equipment; (h) basic suppression equipment; (i) spill containment supplies and equipment; (j) assorted nonsparking hand tools; (k) basic first aid supplies; and (l) related incident management and administrative supplies and equipment. (Authorized by and implementing K.S.A. 31-133; effective, T-22—10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.)
HazMat, Safety Of Storage, Use, Sale, Handling, Transportation and Disposition	**K.S.A 31-133.**	
HazMat, Toxic Chemicals, Definition	**Fire marshal; power and duties; rules and regulations.** (a) The state fire marshal shall adopt reasonable rules and regulations, consistent with the provisions of this act, for the safeguarding of life and property from fire, explosion and hazardous materials. Such rules and regulations shall include, but not be limited to the following: (1) The keeping, storage, use, sale, handling, transportation or other disposition of highly flammable materials, including crude petroleum or any of its products, natural gas for use in motor vehicles, and of explosives,	

	including gunpowder, dynamite, fireworks and firecrackers; and any such rules and regulations may prescribe the materials and construction of receptacles and buildings to be used for any of such purposes; (2) the transportation of liquid fuel over public highways in order to provide for the public safety in connection therewith; (3) the construction, maintenance and regulation of exits and fire escapes from buildings and all other places in which people work, live or congregate from time to time for any purpose, including apartment houses, as defined by K.S.A. 31-132a, and amendments thereto. Such rules and regulations shall not apply to buildings used wholly as dwelling houses containing no more than two families; (4) the installation and maintenance of equipment intended for fire control, detection and extinguishment in all buildings and other places in which persons work, live or congregate from time to time for any purpose, including apartment houses as defined by K.S.A. 31-132a, and amendments thereto. Such rules and regulations shall not apply to buildings used wholly as dwelling houses containing no more than two families; (5) requiring administrators of public and private schools and educational institutions, except community colleges, colleges and universities, to conduct at least one fire drill each month at some time during school hours, aside from the regular dismissal at the close of the day's session, and prescribing the manner in which such fire drill is to be conducted; (6) procedures for the reporting of fires and explosions occurring within the state and for the investigation thereof;	

	(7) procedures for reporting by health care providers of treatment of second and third degree burn wounds involving 20% or more of the victim's body and requiring hospitalization of the victim, which reporting is hereby authorized notwithstanding any provision of K.S.A. 60- 427, and amendments thereto, to the contrary; (8) requiring administrators of public and private schools and educational institutions, except community colleges, colleges and universities, to establish tornado procedures, which procedures shall provide for at least three tornado drills to be conducted each year at some time during school hours, aside from the regular dismissal at the close of the day's session, shall describe the manner in which such tornado drills are to be conducted, and shall be subject to approval by the state fire marshal; (9) requiring administrators of community colleges, colleges and universities to establish tornado procedures, which procedures shall be subject to approval by the director of the disaster agency of the county; (10) the development and implementation of a statewide system of hazardous materials assessment and response; (11) the use of pyrotechnics, pyrotechnic devices and pyrotechnic materials; and (12) other safeguards, protective measures or means adapted to render inherently safe from the hazards of fire or the loss of life by fire any building or other place in which people work, live or congregate from time to time for any purpose, except buildings used wholly as dwelling houses containing no more than two families. (b) Any rules and regulations of the state fire marshal adopted pursuant to this section	

	may incorporate by reference specific editions, or portions thereof, of nation- ally recognized fire prevention codes. (c) The rules and regulations adopted pursuant to this section shall allow facilities in service prior to the effective date of such rules and regulations, and not in strict conformity therewith, to continue in service, so long as such facilities are not determined by the state fire marshal to constitute a distinct hazard to life or property. Any such determination shall be subject to the appeal provisions contained in K.S.A. 31-140, and amendments thereto. History: L. 1972, ch. 157, § 2; L. 1974, ch. 172, § 1; L. 1975, ch. 219, § 1; L. 1975, ch. 220, § 1; L. 1976, ch. 200, §1;L.1982,ch.168,§1;L.1985,ch.128,§1;L.1988, ch. 127, § 1; L. 1999, ch. 65, § 1; July 1.	
HazMat, Workers Compensation, (Regional HazMat) Teams	**(10) Toxic chemical** The term ‘‘toxic chemical’’ means a sub- stance on the list described in section 11023(c) of this title.	
LEPC, Districts, Emergency Planning, Establishing, Federal Requirement	**Workers compensation.** For the purposes of workers compensation coverage, each member of each emergency response team shall at all times be considered an employee of the public or nonpublic entity contracting with the state fire marshal to provide emergency response team services. (Authorized by and implementing K.S.A. 31-133; effective, T-22-10-25-01, Oct. 25, 2001; effective Feb. 15, 2002.)	
LEPC, Establishment,	**(b) Establishment of emergency planning districts**	**(c) Establishment of local emergency planning committees** Not later than 30 days after designation of emergency planning districts or 10 months after October 17, 1986, whichever is earlier, the State emergency response commission shall appoint members of a local

Federal Requirement	Not later than nine months after October 17, 1986, the State emergency response commission shall designate emergency planning districts in order to facilitate preparation and implementation of emergency plans. Where appropriate, the State emergency response commission may designate existing political subdivisions or multi- jurisdictional planning organizations as such districts. In emergency planning areas that involve more than one State, the State emergency response commissions of all potentially affected States may designate emergency planning districts and local emergency planning committees by agreement. In making such designation, the State emergency response commission shall indicate which facilities subject to the requirements of this subchapter are within such emergency planning district.	emergency planning commit- tee for each emergency planning district. Each committee shall include, at a minimum, representatives from each of the following groups or organizations: elected State and local officials; law enforcement, civil defense, firefighting, first aid, health, local environmental, hospital, and transportation personnel; broadcast and print media; community groups; and owners and operators of facilities subject to the requirements of this subchapter. Such committee shall appoint a chairperson and shall establish rules by which the committee shall function. Such rules shall include provisions for public notification of committee activities, public meetings to discuss the emergency plan, public comments, response to such comments by the committee, and distribution of the emergency plan. The local emergency planning committee shall establish procedures for receiving and processing requests from the public for information under section 11044 of this title, including tier II information under section 11022 of this title. Such procedures shall include the designation of an official to serve as coordinator for information.

LEPC, Responsibilities, Additional	**PUB.L. 99-499 EPCRA**	• The LEPC shall appoint a Chairperson, an Information Coordinator, and establish bylaws under which the committee shall function (EPCRA, Section 301(c)). The bylaws shall include provisions for public notification of committee activities, public meetings to discuss the emergency operations plan, public comments, and response to such comments by the committee (See Appendix A for sample bylaws). Other considerations that the LEPC should make in rulemaking are:
		  ○ Term of office
		  ○ Removal from the LEPC
		  ○ Authority of the LEPC
		  ○ Immunity for LEPC members
		• The LEPC shall notify the CEPR of nominations for changes in the makeup of the committee. The LEPC members shall be nominated by County Commissioners and will be approved by the CEPR. Nominations must be submitted in written form. A current membership list should be sent to the CEPR on an annual basis to be considered “active”. Provide the CEPR an address for LEPC correspondence to include where facilities should submit their Tier II forms. Provide the CEPR an email address for the LEPC Chairperson.
		• The LEPC shall evaluate the need for resources necessary to develop, implement, and exercise the jurisdiction’s local emergency operations plan. Recommendations shall be made with respect to

		additional resources that may be required and the means for providing such additional resources (Section 303 (a)). • The LEPC shall annually publish a notice through print or electronic means that the local emergency operations plan, MSDS, and Tier II inventory forms have been submitted under this section (Section 324(b)). • The LEPC shall submit the LEPC Compliance Certification Form annually by December 31st (see page v).
LEPC, Responsibilities, Major	**PUB.L. 99-499 EPCRA**	• Shall review local emergency operations plans once a year, or more frequently as circumstances change in the community or as any facility may require (Section 303(a)). Plan review results and updates should be submitted to KDEM in writing along with a copy of the LEPC meeting minutes documenting review of the Plan. (Detailed LEPC meeting minutes may be submitted in lieu of written review results.) • Shall make available each Material Safety Data Sheet (MSDS), chemical list described in Section 311(a)(2) or Kansas Tier II report, inventory form, toxic chemical release form, and follow-up emergency notice to the general public, consistent with Section 322, during normal working hours at a location designated by the LEPC (Section 324(a)). • Shall establish procedures for receiving and processing requests from the public for information under Section 324, including Tier II information under Section 312. Such procedures shall include the designation of an official to serve as coordinator for information (Section 301(c)). • Shall receive from each subject facility the name of a facility representative who will participate in the emergency planning process as a facility emergency coordinator (Section 303(c)). • Shall be informed by the community emergency coordinator of hazardous chemical releases reported by owners or operators of covered facilities (Section 304(b)(1)(a)). • Shall be given follow-up emergency notice information as soon as practical after a release, which requires the owner/operator to submit a notice (Section 304(c)). • Shall receive from the owner or operator of any facility a MSDS for each such chemical (upon request of the LEPC or fire department), or a list of such chemicals as described in paragraph (2) (Section 311(a)). • Shall, upon request by any person, make available an MSDS to the person in accordance with Section 324 (Section 311(a)). • Shall receive from the owner or operator of each facility an emergency and hazardous chemical inventory form (Section 312(a)). • Shall respond to a request for Tier II information under this paragraph no later than 45 days after the date of receipt of the request (Section 312(e)). • May commence a civil action against an owner or operator of a facility for failure to provide information under section 303(d) or for failure to submit Tier II information under section 312(e)(1) (Section 326(a)(2)(B)).
Liability, Immunity, Law	**K.S.A. 48-934.**	**Duties and immunities of law enforcement, military and other authorized personnel.**

Enforcement, Military, Other Authorized Personnel		Law enforcement officers, military personnel, or other persons authorized to assist them, while engaged in maintaining or restoring the public peace or safety or in the protection of life or property during a state of disaster emergency proclaimed under K.S.A. 48-924, shall have all powers, duties and immunities of peace officers of the state of Kansas in addition to all powers, duties and immunities now otherwise provided by law and shall be immune from civil and criminal liability for acts reasonably done by them in the performance of their duties so long as they act without malice and without the use of excessive or unreasonable force. All such personnel shall have the authority to enforce any and all ordinances of any municipality within an area affected by disaster as indicated in the proclamation of a state disaster emergency under K.S.A. 48-924, and for such purpose, all such personnel shall be considered to be authorized officers of said municipality. History: L. 1975, ch. 283, § 14; April 11.
Liability, Immunity; Disaster; Assistance; Provision; Municipalities	**KSA 12-16,117**	**Municipal policies regarding the provision of assistance during times of disaster; immunity from liability.** (b) The governing body of a municipality may establish a policy regarding the provision of assistance to other municipalities and public safety agencies located in other municipalities located within or without the state of Kansas. Such policy shall be established by adoption of the appropriate ordinance or resolution. Such ordinance or resolution shall include the procedure for the provision of assistance during times of disaster. Any ordinance or resolution adopted pursuant to this section shall be consistent with the applicable local or interjurisdictional disaster plan adopted pursuant to K.S.A. 48-901 et seq., and amendments thereto. (c) When providing assistance pursuant to an ordinance or resolution adopted pursuant to this section, the municipality and public safety agency shall be subject to the provisions of all laws, including those providing immunity from liability, as if such municipality or public safety agency was acting within such municipality. Any public safety agency of another state providing assistance in this state pursuant to an ordinance or resolution adopted pursuant to this section, shall be subject to the provisions of all laws of this state, including those providing immunity from liability, as if such public agency was a public agency within the state of Kansas. (d) A copy of any ordinance or resolution adopted pursuant to this section shall be filed with the emergency preparedness officer of the county. A copy of such ordinance or resolution also shall be filed with the division of emergency preparedness as part of the local or interjurisdictional disaster plan required pursuant to K.S.A. 48-929, and amendments thereto. (e) An ordinance or resolution adopted under the provisions of this section shall not be regarded as an inter-local agreement under the provisions of K.S.A. 12-2901 et seq., and amendments thereto.
Liability; Immunity; Insurance	**K.S.A. 48-922**	Purchase of accident insurance for volunteer workers by cities; coverage; immunity; definitions. (a) The governing body of any city which has a disaster agency pursuant to K.S.A. 48-929, and amendments thereto, or is participating in an interjurisdictional arrangement under an interjurisdictional disaster agency pursuant to K.S.A. 48-930, and amendments thereto, may purchase accident insurance for the protection of those volunteer workers engaged in emergency management activities sustaining injury or death by accidental means as a result of such emergency management activities as the volunteer worker may be called on to perform when called into services in such

		capacity. The governing body of such city may purchase accident insurance from private insurance companies in such amounts and for such coverage as the city governing body may deem necessary and pay for such insurance out of the emergency management fund. The purchase of such insurance shall not constitute a waiver of the immunity of the city from any action or suit provided for in K.S.A. 48-915, and amendments thereto. (b) As used in this section: (1) "Volunteer workers" means those natural persons who volunteer their services for the purpose of engaging in emergency management activities under a disaster agency established and maintained under K.S.A. 48-929 or 48-930, and amendments thereto; and (2) "injury" means and includes all injuries to a volunteer worker received by accidental means while such volunteer worker is actually engaged in performing duties arising out of and in the course of such emergency management activities. History: L. 1955, ch. 262, § 2; L. 1975, ch. 283, § 30; L. 1994, ch. 248, § 10; July 1.
Liability; Immunity; state, local governments, and certain individuals; Kansas tort claims act, applicability.	**K.S.A. 48-915.**	**Immunity from liability of the state, local governments and certain individuals; Kansas tort claims act, applicability.** (b) Whenever a proclamation is issued declaring a state of disaster emergency pursuant to K.S.A. 48-924, and amendments thereto, neither the state nor any political subdivision of the state nor, except in cases of willful misconduct, gross negligence or bad faith, the employees, agents, or representatives of the state or any political subdivision thereof, nor any volunteer worker, or member of any agency, engaged in any emergency management activities, complying with or reasonably attempting to comply with this act, or any proclamation, order, rule and regulation promulgated pursuant to the provisions of this act, or pursuant to any ordinance relating to blackout or other precautionary measures enacted by any political subdivision of the state, shall be liable for the death of or injury to persons, or for damage to property, as a result of any such activity performed during the existence of such state of disaster emergency or other such state of emergency. (c) Any member of a regional medical emergency response team created under the provisions of K.S.A. 48-928, and amendments thereto, shall be deemed a state employee under the Kansas tort claims act, K.S.A. 75-6101, et seq., and amendments thereto. History: L. 1951, ch. 323, § 14; L. 1975, ch. 283, § 25; L. 1994, ch. 248, § 5; L. 2002, ch. 149, § 1; July 1.
Liquefied Petroleum Gas Facilities, application and plan	**K.S.A 55-1810.**	**Liquefied petroleum gas facilities; application and plan; review by state fire marshal.** (a) An application and plan for design, construction, major modification and installation of all liquefied petroleum gas facilities shall be submitted to the state fire marshal. Construction, major modification and installation of all liquefied petroleum gas facilities owned or operated by a liquefied petroleum gas marketer shall not commence until such application and plan is reviewed and approved by the state fire marshal in accordance with rules and regulations. (b) The state fire marshal shall approve or deny the submitted applications and plans within 20 business days upon receipt of all necessary documentation as pro- vided for in rules and regulations. If the state fire marshal requests additional information from the applicant, the state fire marshal shall have an additional 20 business days from the day of receipt of such information to approve or deny the

		submitted application and plan. History: L. 2004, ch. 111, § 4; Apr. 22.
Liquefied Petroleum Gas, Inspection and Safety Regulation	**K.S.A 55-1812**	**Licensure; training, inspection and safety regulation; fees; exemption; violations; penalties.** (a) The state fire marshal shall promulgate rules and regulations to carry out the provisions of this act. Any rules and regulations of the state fire marshal adopted pursuant to this section may incorporate by reference specific editions, or portions thereof, of nationally recognized fire prevention codes. Such rules and regulations shall include but not be limited to the following: (1) The establishment of classes of licenses which shall be renewed on an annual basis, including, but not limited to: (A) Class one dealer license which is required to engage in the retail distribution of liquefied petroleum gas; (B) class two bulk storage site license which requires the holder to report all bulk storage facilities and locations within their operations; (C) class three cylinder transport license which is required to operate a cylinder delivery service; (D) class four cylinder filling license which is required to operate a cylinder filling facility, including liquefied petroleum gas cylinder filling and the sale of cylinder valves, and the operation of a liquefied petroleum gas filling station; (E) class five recreational vehicle fueling license which is required to fuel recreational vehicles or mobile fuel containers; (F) class six cylinder exchange cabinet license which is required to establish a cylinder exchange cabinet or participate in a cylinder program; (G) class seven self-serve liquefied petroleum gas dispensing license which is required to operate a liquefied petroleum gas fueling facility; and (H) class eight installation and service of liquefied petroleum gas systems license which is required to install, maintain, or modify a residential or commercial liquefied petroleum gas distribution and utilization system. (2) the establishment of educational requirements for each class of licenses; (3) the establishment of inspection programs and inspection requirements for all liquefied petroleum gas facilities, operations, installations and businesses, including, but not limited to, bulk storage areas, safety information and customer records, educational requirements of liquefied petroleum gas employees and commercial establishments and places of public gathering that are end retail users for compliance with rules and regulations; and (4) the establishment of codes which the state fire marshal has determined provide adequate protection and guidance to the liquefied petroleum gas industry and public relating to the handling, installation, modification, delivery and use of liquefied petroleum gas and liquefied petroleum gas systems. (b) The state fire marshal shall have the authority to charge and collect fees as provided in this subsection: (1) The annual license fee for a class one dealer license shall not exceed $250 per location; (2) the annual class two bulk storage site license fee shall not exceed $50 per tank; (3) the annual class three cylinder transport li- cense fee per vehicle shall not exceed $125 per truck;

		(4) the annual class four cylinder filling license fee per facility shall not exceed $75 per location; (5) the annual class five recreational vehicle fueling license fee per facility shall not exceed $75 per location; (6) the annual class six cylinder exchange cabinet license fee per facility shall not exceed $15 per location; (7) the annual class seven self-serve liquefied petroleum gas dispensing license fee per facility shall not exceed $75 per location; and (8) the annual class eight installation and service of liquefied petroleum gas systems license fee shall not exceed $25 per individual. (c) A person who has earned a certificate pursuant to K.S.A. 12-1508 et seq. or 12-1541 et seq., and amendments thereto, shall be exempt from all licensure and training provisions of this act and all licensure and training rules and regulations adopted pursuant to this act. Upon written request of the state fire marshal, a certificate holder shall furnish proof of certification. (d) In addition to any other penalty provided by law, any person violating the provisions of this act and amendments thereto or the rules and regulations adopted pursuant to this act may incur fines in the amount not less than $50 nor more than $1,000 for each such violation. In the case of a continuing violation, every day such violation continues is a separate violation. Such fines shall be imposed pursuant to the procedures provided in the administrative procedure act. Any fines recovered shall be remitted to the state treasurer and deposited to the credit of the state general fund. (e) The state fire marshal shall create uniform safety information which shall be distributed on, at least an annual basis, to all licensees. (f) (1) The fire marshal may suspend, revoke or refuse to issue or renew a license of any liquefied petroleum gas marketer or individual licensee as created by this act and rules and regulations upon proof that the licensee has violated any provision of this act or amendments thereto, any rules and regulations or amendments thereto, or provision regarding a class of license as established by the state fire marshal. (2) Proceedings to consider the suspension, revocation or refusal to renew a license shall be conducted in accordance with the provisions of the Kansas administrative procedure act. History: L. 2004, ch. 111, § 6; L. 2007, ch. 67, § 1; July 1.
Motor Carrier, Daily Log, Failure to Present, Pursuant to K.S.A. 66-1,129 and K.A.R. 1980 Supp. 82-4-6	**L.P.:** **STATE v. WILLIAMS No. 53391**	Issue: "…whether a member of the highway patrol may stop a motor vehicle, which is subject to statutes, rules and regulations promulgated by the State of Kansas and its authorized agencies, to check the driver's daily log. Regulations require that a daily log be maintained in the truck cab and presented upon request to any law enforcement officer. K.A.R. 1980 Supp. 82-4-6(c)(1)(B), now K.A.R. 1981 Supp. 82-4-7a(t). The defendant, while traveling on U.S. Highway 160 in Labette County, Kansas, during daylight hours, was stopped by a Kansas highway patrolman. The trooper requested defendant's daily log and defendant declined to present it because it was not properly filled out. Apparently the defendant had made no entries in the log since the preceding day. The trooper stopped the defendant solely to make an inspection to insure that the carrier, vehicle and driver were in compliance with Kansas Corporation Commission (KCC) regulations. The trooper had no reason to suspect that the carrier, driver or truck was

		not operating in compliance with KCC regulations or was in violation of any law when he selected the truck at random to be checked. The defendant was found guilty."
Motor Carrier, Regulated, Economic, KCC		**Economic Regulated Motor Carriers** Motor carriers who need a certificate, license or permit: Public Motor Carrier: Any person who holds himself out to the public as willing to undertake for hire to transport by motor vehicle, from place to place, persons or the property of others who may choose to employ him. Private Motor Carrier: Any person who provides transportation of property or passengers by commercial motor vehicle and is not a for hire motor carrier. If you meet the definition of one of the above, you need a certificate, license or permit, unless you meet the exemptions found at K.A.R. 82-4-26(a) found on page 59 of this book, or unless you meet one of the exemptions of K.S.A. 66-1,109, found below: (a) Transportation by motor carriers wholly within the corporate limits of a city or village in this state, or between contiguous cities or villages in this state or in this and another state, or between any city or village in this or another state and the suburban territory in this state within three miles of the corporate limits, or between cities and villages in this state and cities and villages in another state which are within territory designated as a commercial zone by the relevant federal authority, except that none of the exemptions specified in this subsection (a) shall apply to wrecker carriers and none of such exemptions shall apply to motor carriers of passengers, other than motor carriers of passengers operating as a part of the general transit system serving any such city or village in this or another state, operating on regular routes and time schedules between any city or village in this or another state, and the suburban territory in this state; (b) a private motor carrier who operates within a radius of 25 miles beyond the corporate limits of its city or village of domicile, or who operates between cities and villages in this state and cities and villages in another state which are within territory designated as a commercial zone by the relevant federal authority; c) the owner of livestock or producer of farm products transporting livestock of such owner or farm products of such producer to market in a motor vehicle of such owner or producer, or the motor vehicle of a neighbor on the basis of barter or exchange for service or employment, or to such owner or producer transporting supplies for the use of such owner or producer in a motor vehicle of such owner or producer, or in the motor vehicle of a neighbor on the basis of barter or exchange for service or employment; (d) persons operating motor vehicles used only to transport property when no common carrier is accessible, but when common-carrier service is available then this last exemption is limited to the transportation of such property from origin to the nearest practicable common- carrier receiving or loading point, or from a common-carrier unloading point by way of the shortest practicable route to destination, providing such motor vehicle does not pass a practicable delivery or receiving point of a common carrier equipped to transport such load, or when used to transport property from the point of origin to point of destination thereof when the destination of such property is less distant from the

		point of origin thereof than the nearest practicable common-carrier receiving or loading point equipped to transport such load; (e) (1) the transportation of children to and from school, or (2) to motor vehicles owned by schools, colleges, and universities, religious or charitable organizations and institutions, or governmental agencies, when used to convey students, inmates, employees, athletic teams, orchestras, bands or other similar activities; (f) a new vehicle dealer as defined by K.S.A. 8-2401, and amendments thereto, when transporting property to or from the place of business of such dealer; (g) motor vehicles carrying tools, property or material belonging to the owner of the vehicle and used in repair, building or construction work, not having been sold or being transported for the purpose of sale; (h) persons operating motor vehicles which have an ad valorem tax situs in and are registered in the state of Kansas, and used only to transport grain from the producer to an elevator or other place for storage or sale for a distance of not to exceed 50 miles; (i) the operation of hearses, funeral coaches, funeral cars or ambulances by motor carriers; (j) motor vehicles owned and operated by the United States, the District of Columbia, any state, any municipality or any other political subdivision of this state, including vehicles used exclusively for handling U.S. mail, and the operation of motor vehicles used exclusively by organizations operating public transportation systems pursuant to 49 U.S.C. sections 5307, 5310 and 5311; (k) any motor vehicle with a normal seating capacity of not more than the driver and 15 passengers while used for vanpooling or otherwise not for profit in transporting persons who, as a joint undertaking, bear or agree to bear all the costs of such operations, or motor vehicles with a normal seating capacity of not more than the driver and 15 passengers for not-for-profit transportation by one or more employers of employees to and from the factories, plants, offices, institutions, construction sites or other places of like nature where such persons are employed or accustomed to work; (l) motor vehicles used to transport water for domestic purposes, as defined by subsection (c) of K.S.A. 82a-701, and amendments thereto, or livestock consumption; (m) transportation of sand, gravel, slag stone, limestone, crushed stone, cinders, calcium chloride, bituminous or concrete paving mixtures, blacktop, dirt or fill material to a construction site, highway maintenance or construction project or other storage facility and the operation of ready-mix concrete trucks in transportation of ready-mix concrete; (n) the operation of a vehicle used exclusively for the transportation of solid waste, as the same is defined by K.S.A. 65-3402, and amendments thereto, to any solid waste processing facility or solid waste disposal area, as the same is defined by K.S.A. 65-3402, and amendments thereto; (o) the transporting of vehicles used solely in the custom combining business when being transported by persons engaged in such business; (p) the operation of vehicles used for servicing, repairing or transporting of implements of husbandry, as defined in K.S.A. 8-1427, and amendments thereto, by a person actively engaged in the business of buying, selling or exchanging implements of husbandry, if such operation is within 100 miles of such person's established place of business in this state;

		(q) transportation by taxi or bus companies operated exclusively within any city or within 25 miles of the point of its domicile in a city; (r) a vehicle being operated with a dealer license plate issued under K.S.A. 8-2406, and amendments thereto, and in compliance with K.S.A. 8-136, and amendments thereto, and vehicles being operated with a full-privilege license plate issued under K.S.A. 8-2425, and amendments thereto; (s) any person operating a motor vehicle with a gross vehicle weight rating of 10,000 pounds or less, transporting property sold or to be sold by the owner or operator of such motor vehicle, except motor vehicles transporting hazardous materials which require placards; (t) the operation of vehicles used for transporting materials used in the servicing or repairing of the refractory linings of industrial boilers; (u) transportation of newspapers published at least one time each week; (v) transportation of animal dung to be used for fertilizer; and (w) the operation of ground water well drilling rigs.
Motor Carrier, Regulations, KCC, Definitions	**K.A.R 82-4-1 KCC**	Definitions. The following terms used in connection with the regulations of the state corporation commission governing motor carriers shall be defined as follows: (a) "Affiliate" means a person or company controlling, controlled by, or under common control or ownership with, another person or company. (b) "Air mile" means nautical mile. (c) "Authorized agent" and "authorized representative" mean any authorized special agent or employee of the commission, any member of the Kansas highway patrol, or any law enforcement officer in the state certified in the inspection of motor carriers and authorized in accordance with the requirements of the Kansas motor carrier safety program. (d) "Certificate" means a document evidencing a certificate of convenience and necessity or a certificate of public service issued to an intrastate common carrier to operate motor vehicles as a common carrier. (e) "Chameleon carrier" means a motor carrier continuing its motor carrier operation under a new USDOT or motor carrier identification (MCID) number for the purpose of avoiding a fine, penalty, federal out-of-service order or commission order that was issued against the previously used USDOT or MCID number. (f) "Commercial motor vehicle" means any of the following, except when used in 49 C.F.R. Part 382 as adopted by K.A.R. 82- 4-3c: (1) A vehicle that has a gross vehicle weight rating or gross combination weight rating, or a gross vehicle weight or gross combination weight, of 4,536 kg (10,001 pounds) or more, whichever is greater; (2) a vehicle designed or used to transport more than eight passengers, including the driver, for compensation; (3) a vehicle that is designed or used to transport more than 15 passengers, including the driver, and is not used to transport passengers for compensation; or (4) a vehicle used in transporting material found by the secretary of transportation to be hazardous under 49 U.S.C. 5103 and transported in a quantity requiring placarding according to regulations prescribed by the secretary under 49 C.F.R. Part 172 as adopted in K.A.R. 82- 4-20. (g) "Commission" means Kansas Corporation Commission.

		(h) “Conviction” means any of the following, whether or not the penalty is reduced, suspended, or resolved by means of a probationary agreement: (1) An unvacated adjudication of guilt or a determination by a federal, state, or local court of original jurisdiction or by an authorized administrative tribunal that a person has violated or failed to comply with the law; (2) an unvacated forfeiture of bail or collateral deposited to secure the person’s appearance in court; (3) a plea of guilty or nolo contendere accepted by the court; (4) the payment of a fine or court cost; or (5) violation of a condition of release without bail. (i) “Director” means director of the transportation division of the commission. (j) “Distance” means distance measured in air miles. (1) Distances shall be computed from the corporate limits of incorporated communities and from the post office of unincorporated communities. (2) If there is no post office in the unincorporated community, the distance shall be computed from the center of the business district. (k) “Docketing” means entering a proposal in the organization files and then giving notice of the proposal to other carriermembers of the organization and shipper subscribers. (l) “Driveaway operation” and “towaway operation” mean any operation in which an empty or unladen motor vehicle with one or more sets of wheels on the surface of the roadway is being transported according to one of the following: (1) Between a vehicle manufacturer’s facilities; (2) between a vehicle manufacturer and a dealership or purchaser; (3) between a dealership, or other entity selling or leasing the vehicle, and a purchaser or lessee; (4) to a motor carrier’s terminal or repair facility for the repair of disabling damage, as defined in K.A.R. 82-4-3f, following a crash; (5) to a motor carrier’s terminal or repair facility for repairs associated with the failure of a vehicle component or system; or (6) by means of a saddle-mount or towbar. (m) “Driver” means any person who operates any commercial motor vehicle. (n) “Entire direct case” shall include, for the purpose of this article, all testimony, exhibits, and other documentation offered in support of the proposed rates. (o) “Express carrier” means a common carrier who carries packages or parcels, the maximum weight of which does not exceed 350 pounds for each package or parcel. (p) “FHWA” means federal highway administration. (q) “FMCSA” means federal motor carrier safety administration. (r) “General increase” and “general decrease” mean a common motor carrier rate increase or decrease proposed as a general adjustment of substantially all the rates published in a tariff. (s) “Hazardous material” means a substance or material that the U.S. secretary of transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce and has designated as hazardous under section 5103 of federal hazardous materials

		transportation law, 49 U.S.C. 5103. This term shall include hazardous substances, hazardous wastes, marine pollutants, elevated-temperature materials, materials designated as hazardous in the hazardous materials table in 49 C.F.R. 172.101 as adopted in K.A.R. 82-4-20, and materials that meet the criteria for hazard classes and divisions in 49 C.F.R. Part 173, subpart C as adopted in K.A.R. 82-4-20. (t) "Hazardous materials regulations" and "HMR" mean the federal hazardous material regulations as adopted in K.A.R. 82-4-20. (u) "Industry average carrier cost information" means the average intrastate cost of the carriers who participate in an organization tariff and who have authority from the commission to transport the commodities indicated in the organization tariff. (v) "Joint line rate" means a rate, charge, or allowance established by two or more common motor carriers of property or passengers that is applicable over the carriers' lines and for which the transportation can be provided by these carriers. (w) "License" means the document or registration receipt evidencing the registration of an interstate common motor carrier or interstate exempt motor carrier to operate motor vehicles in the state of Kansas in interstate commerce. (x) "Licensed medical examiner" means a person who meets one of the following conditions: (1) Is licensed by the Kansas state board of healing arts to practice medicine and surgery, osteopathic medicine and surgery, or chiropractic; (2) is licensed by the Kansas state board of healing arts as a physician assistant; or (3) is licensed by the Kansas state board of nursing as a registered professional nurse qualified to practice as an advanced practice registered nurse. (y) "Motor carrier" means any corporation, limited liability company, partnership, limited liability partnership, or individual subject to the provisions of the motor carrier laws of Kansas and under the jurisdiction of the Kansas corporation commission. (z) "Moving violation" means the commission or omission of an act by a person operating a motor vehicle that could result in injury or property damage and that is also a violation of a statute, ordinance, or regulation of this state or any other jurisdiction. (aa) "Notice" means advance notification to shipper subscribers through an organization's docket service. (bb) "Organization" means a legal entity that administers an agreement approved under K.A.R. 82-4-69. (cc) "Out-of-service" and "OOS," when used to describe a driver, a commercial motor vehicle, or a motor carrier operation, mean that the driver, commercial motor vehicle, or motor carrier has ceased to operate or move pursuant to the statutes and regulations of the state of Kansas, the federal motor carrier safety administration regulations, or the industry standards specified in the "North American standard out-of-service criteria," including the appendixes, published by the commercial vehicle safety alliance, revised on April 1, 2011, and hereby adopted by reference. (dd) "Ownership" means an equity holding in a business entity of at least five percent. (ee) "Permit" means the document evidencing authority of a motor carrier to operate motor vehicles as a private carrier.

		(ff) “PHMSA” means pipeline and hazardous materials safety administration of the United States department of transportation. (gg) “Principal place of business” means the location that is listed as the motor carrier’s address on the motor carrier’s MCS-150 form. (hh) “Single line rate” means a rate, charge, or allowance established by a single common motor carrier of property or passengers that is applicable only over its line and for which the transportation can be provided by that carrier. (ii) “Tariff publication” means the rates, charges, classification, ratings, or policies published by, for, or on behalf of common motor carriers of property or passengers. (jj) “Transportation” means the movement of property and passengers and the loading, unloading, or storage incidental to this movement. (kk) “USDOT” means the United States department of transportation. (Authorized by and implementing K.S.A. 2012 Supp. 66- 1,112, K.S.A. 66-1,112g, K.S.A. 2012 Supp. 66-1,129; effective Jan. 1, 1971; modified, L. 1981, Ch. 424, May 1, 1981; amended, T-83-45, Dec. 8, 1982; amended May 1, 1983; amended May 1, 1984; amended April 30, 1990; amended Sept. 16, 1991; amended July 6, 1992; amended May 10, 1993; amended Oct. 3, 1994; amended Jan. 30, 1995; amended Jan. 4, 1999; amended July 28, 2000; amended Nov. 14, 2011; amended P- .)
Motor Carriers, General Duty	**K.A.R. 82-4-2 KCC**	**General duty of carrier.** (a) Each motor carrier shall instruct its officers, agents, employees, and representatives to comply with all the regulations of the commission. (b) Each motor carrier and its officers, agents, employees, and representatives shall comply with the regulations of the commission and with any reasonable requests of the commission or its authorized agents for inspection or examination of any operating credentials of motor carrier equipment or required parts and accessories. (c) Each motor carrier who has obtained a certificate, license, or permit from the commission shall notify the commission within 10 days of any change of business or mailing address. (Authorized by K.S.A. 2009 Supp. 66-1,112 and K.S.A. 66-1,112g; implementing K.S.A. 2009 Supp. 66-1,111; effective Jan. 1, 1971; amended May 1, 1981; amended May 1, 1984; amended May 1, 1987; amended Sept. 16, 1991; amended Jan. 31, 2003; amended Oct. 22, 2010.)
Motor Carriers, Hazards, Large Cargo	**L.P.:** **State vs. Bone No. 83,636** **8 Kan. App. 2d 14, 20, 648 P.2d 1156, rev. denied 231 Kan. 802 (1982)**	“Trucks carrying large cargos present a substantial hazard if not operated in a safe condition or if operated by sleepy or ill drivers, and this is particularly so when transporting cargo such as nuclear material, explosives, petroleum products, chemicals and other hazardous materials. The potential for a catastrophe is much greater than that represented by passenger cars, and considerably more is at stake than if merely checking the license of an automobile driver.”
Motor Carriers, Impoundment Authority, KCC	**K.A.R. 66-1,129a. KCC**	**Impoundment Authority** Motor carriers, suspension, revocation or amendment of certificate; notice; hearing; impoundment of motor carrier's vehicles; sale of such vehicles; proceeds; requirements. (a) The commission, at any time for good cause shown, may suspend the operation of any motor carrier subject to economic or safety rules and regulations adopted by the commission. Upon notice and an opportunity to be heard in accordance with the provisions of the Kansas administrative procedure act,

		the commission may revoke, amend, initiate sanctions or fine any motor carrier who has a certificate, license or permit issued by the commission or is subject to the safety rules and regulations adopted by the commission. Any motor carrier suspended prior to a hearing must be afforded the opportunity of a hearing on the matter. If such a hearing is requested, the hearing shall be held within 10 days of the request. (b) The director of the commission's transportation division, at any time for good cause shown, may request the Kansas highway patrol to impound a motor carrier's vehicle or vehicles when that motor carrier has: (1) Failed to comply with an out-of-service order; (2) failed to comply with a cease or desist order; (3) failed to obtain commission authority to operate; (4) failed to pay a commission-assessed civil penalty; or (5) has otherwise failed to comply with a commission order. Any motor carrier whose vehicle is impounded prior to a hearing must be afforded the opportunity of a hearing on the matter. If such a hearing is requested, the hearing shall be held within 10 days of the request. (c) The commission is authorized to enter into any contracts or agreements necessary with the superintendent of the Kansas highway patrol, in order to provide facilities and personnel to accomplish the impounding of vehicles. (d) If the owner of a motor vehicle which has been impounded pursuant to this section refuses to pay any towing, impoundment, storage or other fees relating to the impoundment of such vehicle or fails to take possession of such vehicle within 30 days following the date of the expiration of the impoundment period, such vehicle shall be deemed abandoned and the vehicle may be disposed of by the person having possession of such vehicle. (1) If the person having possession of such vehicle is a public agency, disposition of such vehicle shall be in compliance with the procedures for notice and public auction provided by paragraph (2) of subsection (a) of K.S.A. 8-1102, and amendments thereto. (2) If the person having possession of such vehicle is not a public agency, disposition of such vehicle shall be in compliance with K.S.A. 8-1103 through 8-1108, and amendments thereto. (3) For the purposes of disposing of a vehicle that has been impounded by the state corporation commission under the authority granted by section (b), if the state corporation commission is in possession of the vehicle, the state corporation commission shall be considered a public agency for the purpose of disposing of an abandoned vehicle under the provisions of K.S.A. 8-1102, and amendments thereto. (e) Notwithstanding the provisions of subsection (c)(3) of K.S.A. 8-1102, and amendments thereto, the proceeds from the sale of any vehicle impounded at the direction of the director of the division of transportation of the state corporation commission, received pursuant to subsection (b), except for reimbursement of expenses of the impoundment and sale, by any public agency, including the state corporation commission, shall be deposited in the state treasury in accordance with K.S.A. 75-4215, and amendments thereto, and shall be credited to the state general fund. History: L. 1990, ch. 241, § 1; L. 1993, ch. 263, § 7; L. 2003, ch. 124, § 28; L. 2008, ch. 42, § 1; July 1.

Motor Carriers, Level 2 Inspection, Search of Person	**PUB.L.: State Vs. Bone No. 83636**	Issue: Reasonableness of request to consent to search Bone's person. "The United States Court of Appeals for the Tenth Circuit recently addressed the issue of regulatory stops and searches in U.S. v. Burch, 153 F.3d 1140 (10th Cir. 1998), aff'g 906 F. Supp. 592 (D. Kan. 1995). There, the court stated it will evaluate a traffic stop in two respects: "'whether the officer's action was justified at its inception, and . . . whether the action was reasonably related in scope to the circumstances that first justified the interference.'" 153 F.3d at 1141 (quoting U.S. v. Gonzalez-Lerma, 14 F.3d 1479, 1483 [10th Cir. 1994]). There is no dispute between the parties that Westgate's actions in stopping the vehicle were justified. " "…the search extended beyond the truck to the driver's person. In its response to Bone's motion to suppress, the State defined a level 2 inspection as including an examination of driver's license, medical examiner's certificate and waiver, if applicable, and alcohol and drugs. Westgate testified that he had been a highway patrol officer for 25 years. It is reasonable that he would have knowledge of how motor carriers operate and the procedures for doing spot checks. We conclude that given the experience of the officer and the clear legislative mandate to tightly regulate motor carriers for public safety, the officer's request to search Bone's person for drugs was reasonably related to the circumstances which grew from the original stop."
Motor Carriers, Privacy	**L.P.:** **New York v. Burger, 482 U.S. 691, 700-02, 96 L. Ed. 2d 601, 107 S. Ct. 2636 (1987); U.S. v. Seslar, 996 F.2d 1058, 1061 (10th Cir. 1993)**	"Individuals engaged in a closely regulated industry have a significantly reduced expectation of privacy.."
Motor Carriers, Regulated for Safety, KCC		SAFETY REGULATED MOTOR CARRIERS Motor carriers who are regulated for safety: Public Motor Carrier: Any person who holds himself out to the public as willing to undertake for hire to transport by motor vehicle, from place to place, persons or the property of others who may choose to employ him. Private Motor Carrier: Any person who provides transportation of property or passengers by commercial motor vehicle and is not a for hire motor carrier. If you meet the definition of one of the above, you are regulated unless you meet the exemptions found at K.A.R. 82-4-3(d) found on page 27 of this book, or unless you meet one of the exemptions of K.S.A. 66-1,129(c), found below: (c) Any rules and regulations of the commission, adopted pursuant to this section, shall not apply to the following, while engaged in the carriage of intrastate commerce in this state: (1) The owner of livestock or producer of farm products transporting livestock of such owner or farm products of such producer to market in a motor vehicle of such owner or producer, or the motor vehicle of a neighbor on the basis of barter or exchange for service or employment, or to such owner or producer transporting supplies for the use of such owner or producer in or producer, or in the motor vehicle of a neighbor on the basis of barter or exchange for service or employment. (2) The transportation of children to and from school, or to motor vehicles owned by schools, colleges, and universities, religious or charitable organizations and institutions, or governmental agencies, when

		used to convey students, inmates, employees, athletic teams, orchestras, bands or other similar activities. (3) (A) Except for motor vehicles under subparagraph (B), motor vehicles, with a gross vehicle weight rating of 26,000 pounds or less, carrying tools, property or material belonging to the owner of the vehicle, and used in repair, building or construction work, not having been sold or being transported for the purpose of sale, except vehicles transporting hazardous materials which require placards. (B) Except vehicles transporting hazardous materials which require placards, motor vehicles, with a gross vehicle weight rating of 26,000 pounds or less, carrying tools, property or material belonging to the owner of the vehicle and used in repair, building or construction work and such tools, property or material are being transported to or from an active construction site located within a radius of 25 miles of the principal place of business of the motor carrier. (4) Persons operating motor vehicles which have an ad valorem tax situs in and are registered in the state of Kansas, and used only to transport grain from the producer to an elevator or other place for storage or sale for a distance of not to exceed 50 miles. (5) The operation of hearses, funeral coaches, funeral cars or ambulances by motor carriers. (6) Motor vehicles owned and operated by the United States, the District of Columbia, any state, any municipality or any other political subdivisions of this state. (7) Any motor vehicle with a normal seating capacity of not more than 15 people, including the driver, while used for vanpooling or otherwise not for profit in transporting persons who, as a joint undertaking, bear or agree to bear all the costs of such operations, or motor vehicles with a normal seating capacity not more than 15 people, including the driver, for not-for-profit transportation by one or more employers of employees to and from the factories, plants, offices, institutions, construction sites or other places of like nature where such persons are employed or accustomed to work. (8) The operation of vehicles used for servicing, repairing or transporting of implements of husbandry, as defined in K.S.A. 8-1427, and amendments thereto, by a person actively engaged in the business of buying, selling or exchanging implements of husbandry, if such operation is within 100 miles of such person's established place of business in this state, unless the implement of husbandry is transported on a commercial motor vehicle.
Motor Carriers, Safety Regulations Hours of Service	**K.A.R. 66-1,129 KCC**	**Motor carriers; safety rules and regulations adopted by commission; exceptions.** (a) The (*Kansas Corporation*) commission shall adopt rules and regulations necessary to carry out the provisions of this act. No public motor carrier of property, household goods or passengers or private motor carrier of property shall operate or allow the operation of any motor vehicle on any public highway in this state except within the provisions of the rules and regulations adopted by the commission. Rules and regulations adopted by the commission shall include: (1) Every vehicle unit shall be maintained in a safe and sanitary condition at all times. (2) Every driver of a public or private motor carrier, except the driver of a farm vehicle, operating as a carrier of intrastate commerce within this state, shall be at least 18 years of age. All such drivers shall be competent to operate the motor vehicle under such driver's charge. (3) Minimum age requirements for every driver of a motor carrier, operating as a carrier of interstate commerce, shall be consistent with federal motor carrier regulations.

		(4) Hours of service for operators of all motor carriers to which this act applies shall be fixed by the commission. (5) Accidents arising from or in connection with the operation of motor carriers shall be reported to the commission within the time, in the detail and in the manner as the commission requires. (6) Every motor carrier shall have attached to each unit or vehicle distinctive marking adopted by the commission. (7) Motor carrier transportation requirements that are consistent with continuation of the federal motor carrier safety assistance program and other federal requirements concerning transportation of hazardous materials. (b) No rules and regulations adopted by the commission pursuant to this section shall require the operator of any motor vehicle having a gross vehicle weight rating or gross combination weight rating of not more than 10,000 pounds to submit to a physical examination, unless required by federal laws or regulations. (c) Any rules and regulations of the commission, adopted pursuant to this section, shall not apply to the following, while engaged in the carriage of intrastate commerce in this state: (1) The owner of livestock or producer of farm products transporting livestock of such owner or farm products of such producer to market in a motor vehicle of such owner or producer, or the motor vehicle of a neighbor on the basis of barter or exchange for service or employment, or to such owner or producer transporting supplies for the use of such owner or producer in or producer, or in the motor vehicle of a neighbor on the basis of barter or exchange for service or employment. (2) The transportation of children to and from school, or to motor vehicles owned by schools, colleges, and universities, religious or charitable organizations and institutions, or governmental agencies, when used to convey students, inmates, employees, athletic teams, orchestras, bands or other similar activities. (3) (A) Except for motor vehicles under subparagraph (B), motor vehicles, with a gross vehicle weight rating of 26,000 pounds or less, carrying tools, property or material belonging to the owner of the vehicle, and used in repair, building or construction work, not having been sold or being transported for the purpose of sale, except vehicles transporting hazardous materials which require placards. (B) Except vehicles transporting hazardous materials which require placards, motor vehicles, with a gross vehicle weight rating of 26,000 pounds or less, carrying tools, property or material belonging to the owner of the vehicle and used in repair, building or construction work and such tools, property or material are being transported to or from an active construction site located within a radius of 25 miles of the principal place of business of the motor carrier. (4) Persons operating motor vehicles which have an ad valorem tax situs in and are registered in the state of Kansas, and used only to transport grain from the producer to an elevator or other place for storage or sale for a distance of not to exceed 50 miles. (5) The operation of hearses, funeral coaches, funeral cars or ambulances by motor carriers. (6) Motor vehicles owned and operated by the United States, the District of Columbia, any state, any municipality or any other political subdivisions of this state.

		(7) Any motor vehicle with a normal seating capacity of not more than 15 people, including the driver, while used for vanpooling or otherwise not-for-profit in transporting persons who, as a joint undertaking, bear or agree to bear all the costs of such operations, or motor vehicles with a normal seating capacity [of] not more than 15 people, including the driver, for not-for-profit transportation by one or more employers of employees to and from the factories, plants, offices, institutions, construction sites or other places of like nature where such persons are employed or accustomed to work. (8) The operation of vehicles used for servicing, repairing or transporting of implements of husbandry, as defined in K.S.A. 8-1427, and amendments thereto, by a person actively engaged in the business of buying, selling or exchanging implements of husbandry, if such operation is within 100 miles of such person's established place of business in this state, unless the implement of husbandry is transported on a commercial motor vehicle. **History:** L. 1931, ch. 236, § 22; L. 1959, ch. 258, § 12; L. 1965, ch. 506, § 36; L. 1976, ch. 289, § 1; L. 1977, ch. 226, § 1; L. 1978, ch. 269, § 1; L. 1985, ch. 227, § 1; L. 1988, ch. 356, § 242; L. 1990, ch. 241, § 3; L. 2001, ch. 73, § 3; L. 2003, ch. 124, § 27; L. 2004, ch. 152, § 7; L. 2013, ch. 14, § 3; July 1.
Motor Carriers, Safety Regulations, Exemptions,	**K.A.R. 82-4-2 KCC**	Motor Carrier Regulations Safety 82-4-3. Exemption from the motor carrier safety regulations. The commission's safety regulations and the federal safety regulations adopted by reference in this article shall not apply to the following: (a) The occasional transportation of personal property by private motor carriers that is not for compensation and is not in the furtherance of a commercial enterprise; (b) the operation of fire trucks and rescue vehicles while involved in emergency and related operations; (c) the operation of commercial motor vehicles designed or used to transport between nine and 15 passengers, including the driver, not for compensation, if the commercial motor vehicle does not otherwise meet the definition of a commercial motor vehicle, except that motor carriers operating these vehicles shall comply with 49 C.F.R. 390.15, 49 C.F.R. 390.19, and 49 C.F.R. 390.21(a), as adopted by K.A.R. 82-4-3f; (d) the operation of commercial motor vehicles designed or used to transport between nine and 15 passengers, including the driver, for direct compensation, if the vehicle is not being operated beyond a radius of 75 air miles from the driver's normal work-reporting location and if the vehicle does not otherwise meet the definition of a commercial motor vehicle, except that motor carriers operating these vehicles shall comply with 49 C.F.R. 390.15, 49 C.F.R. 390.19, and 49 C.F.R. 390.21(a), as adopted by K.A.R. 82-4-3f. (Authorized by and implementing K.S.A. 2003 Supp. 66-1,112, K.S.A. 66-1,112g, and K.S.A. 2003 Supp. 66-1,1129, as amended by L. 2004, Ch. 152, § 7; effective Jan. 1, 1971; modified L. 1981, ch. 424, May 1, 1981; amended May 1, 1984; amended May 1, 1985; amended May 1, 1987; amended April 30, 1990; amended Sept. 16, 1991; amended July 6, 1992; amended May 10, 1993; amended Oct. 3, 1994; amended Jan. 30, 1995; amended Jan. 4, 1999; amended, T-82-3-7-00, April 17, 2000; amended July 28, 2000; amended, T-82, 10-25-01, Oct. 25, 2001; amended Dec. 28, 2001; amended, T-82-12- 29-04, Dec. 29, 2004; amended April 29, 2005.) federal safety regulations adopted by reference in this article shall not apply to the following: (a) The occasional transportation of personal property by private motor carriers that is not for compensation and is not in the furtherance of a commercial enterprise;

		(b) the operation of fire trucks and rescue vehicles while involved in emergency and related operations; (c) the operation of commercial motor vehicles designed or used to transport between nine and 15 passengers, including the driver, not for compensation, if the commercial motor vehicle does not otherwise meet the definition of a commercial motor vehicle, except that motor carriers operating these vehicles shall comply with 49 C.F.R. 390.15, 49 C.F.R. 390.19, and 49 C.F.R. 390.21(a), as adopted by K.A.R. 82-4-3f; (d) the operation of commercial motor vehicles designed or used to transport between nine and 15 passengers, including the driver, for direct compensation, if the vehicle is not being operated beyond a radius of 75 air miles from the driver's normal work-reporting location and if the vehicle does not otherwise meet the definition of a commercial motor vehicle, except that motor carriers operating these vehicles shall comply with 49 C.F.R. 390.15, 49 C.F.R. 390.19, and 49 C.F.R. 390.21(a), as adopted by K.A.R. 82-4-3f. (Authorized by and implementing K.S.A. 2003 Supp. 66-1,112, K.S.A. 66-1,112g, and K.S.A. 2003 Supp. 66-1,1129, as amended by L. 2004, Ch. 152, § 7; effective Jan. 1, 1971; modified L. 1981, ch. 424, May 1, 1981; amended May 1, 1984; amended May 1, 1985; amended May 1, 1987; amended April 30, 1990; amended Sept. 16, 1991; amended July 6, 1992; amended May 10, 1993; amended Oct. 3, 1994; amended Jan. 30, 1995; amended Jan. 4, 1999; amended, T-82-3-7-00, April 17, 2000; amended July 28, 2000; amended, T-82, 10-25-01, Oct. 25, 2001; amended Dec. 28, 2001; amended, T-82-12- 29-04, Dec. 29, 2004; amended April 29, 2005.)
Motor Carriers, Search, Probable Cause	**L.P.:** **U.S. v. BURCH** **NO. 95-40045-01-02-SAC.**	"A regulatory search is governed by the Fourth Amendment but does not require probable cause as defined traditionally by the courts. In general, probable cause, and the less stringent standard of reasonable suspicion, require particularized suspicion--that is, the officer must have some articulable basis to believe that the individual to be searched or seized has committed or is committing a crime. In contrast, a regulatory search is justified if the state's interest in ensuring that a class of regulated persons is obeying the law outweighs the intrusiveness of a program of searches or seizure of those persons."
Municipalities; Local Offices, Succession	**K.S.A. 48-1206.**	**Enabling authority for emergency interim successors for local offices.** With respect to local offices for which the legislative or governing bodies of cities, townships, and counties may enact resolutions or ordinances relative to the manner in which vacancies will be filled or temporary appointments to office made, such legislative or governing bodies are hereby authorized to enact resolutions or ordinances providing for emergency interim successors to offices of the aforementioned governmental units. Such resolutions and ordinances shall not be inconsistent with the provisions of this act. History: L. 1961, ch. 423, § 6; June 30.
Mutual Aid, Obligations, Participating Municipalities	**K.S.A. 48-953**	Obligation of participating political subdivisions to provide assistance; conditions. A participating political subdivision's obligation to provide assistance in the prevention of, response to and recovery from a locally-declared emergency or in authorized drills or exercises is subject to the following conditions: (a) A participating political subdivision requesting assistance must have either declared a state of emergency in the manner specified in K.S.A. 48-932, and amendments thereto, or authorized drills and exercises;

		(b) a responding participating political subdivision may withhold resources to the extent necessary to provide reasonable protection and services for its own jurisdiction; (c) emergency responders of a responding participating political subdivision shall continue under the command and control of their responding jurisdiction, to include medical protocols, standard operating procedures and other protocols, but shall be under the operational control of the appropriate officials within the incident management system of the participating political subdivision receiving the assistance; and (d) assets and equipment of a responding participating political subdivision shall continue under the control of the responding political subdivision but shall be under the operational control of the appropriate officials within the incident management system of the participating political subdivision receiving the assistance. History: L. 2006, ch. 106, § 6; July 1.
Mutual Aid, Statewide	**K.S.A. 48-950**	**Kansas mutual aid system; participation by political subdivisions.** All political subdivisions within the state, upon enactment of this act, are automatically a part of the Kansas mutual aid system. A political subdivision may elect not to participate or to later withdraw from the system by adoption of an appropriate resolution by its governing body declaring that it elects not to participate in the statewide mutual aid system and providing a copy of the resolution to the division. This act does not preclude participating political subdivisions from entering into supplementary agreements with another political subdivision and does not affect any other agreement to which a political subdivision may currently or in the future be a party under other Kansas statutes.
Mutual Aid; Assistance; Requests	**K.S.A. 48-952.**	Requests for assistance among participating political subdivisions. A participating political subdivision may request assistance of other participating political subdivisions in preventing, mitigating, responding to and recovering from disasters that result in locally declared emergencies or in concert with authorized drills or exercises as allowed under this legislation. Requests for assistance shall be made through the chief executive officer of a participating political subdivision or the chief executive officer's designee. Requests may either be verbal or in writing and are not required to go directly to the division but in all cases will be reported to the division as soon as is practical. Verbal requests will be followed up with a written request as soon as is practical or such number of days as the division in its discretion may dictate. History: L. 2006, ch. 106, § 5; July 1.
Mutual Aid; Fire; Departments, Cities & Municipalities	**K.S.A. 12-111:**	**Firefighting beyond territorial limits of city or township; privileges and immunities.** Whenever the necessity arises during any emergency resulting from the existence of a state of war, or from fire, or any other cause, the firemen and officers of the fire department of any city or township may, together with all necessary equipment, lawfully go or be sent beyond the territorial limits of such cities or townships to any point within the state, to assist in meeting such emergency: *Provided,* The fire chief or person in charge of the fire department shall have the right in every case to determine whether or not a city or township can spare all or any portion of its fire equipment and firemen at any particular time. In such event the acts performed for such purposes by such firemen or officers, and the expenditures made for such purpose by such city or township shall be deemed conclusively to be for a public and governmental purpose and all of the immunities from liability enjoyed by a city or township when acting through its

		firemen or officers of the fire department for a public or governmental purpose within its territorial limits shall be enjoyed by it to the same extent when such city or township is so acting under this section or under other lawful authority beyond its territorial limits. The firemen and officers of the fire department of any city or township, when acting hereunder, or under other lawful authority, beyond the territorial limits of such city or township, shall have all of the immunities from liability and exemptions from laws, ordinances and regulations and shall have all of the pension, relief, disability and other benefits, enjoyed by them while performing their respective duties within the territorial limits of such city or township. **History:** L. 1943, ch. 169, § 1; March 11.
Mutual Aid; Guidelines; Procedures	**K.S.A. 48-955.**	Guidelines and procedures. The division *(KDEM)* shall develop comprehensive guidelines and procedures for implementation of the Kansas mutual aid system, including, but not limited to, the following: Projected or anticipated costs, checklists for requesting and providing assistance, record keeping for all participating political subdivisions, reimbursement procedures, use of a common glossary of terms and definitions of resources and other necessary implementation elements, along with the necessary forms for requests and other records documenting deployment and return of assets. History: L. 2006, ch. 106, § 8; July 1.
Mutual Aid; Municipal	**K.S.A. 12-16,117.**	Municipal policies regarding the provision of assistance during times of disaster; immunity from liability. (a) When used in this act: (1) "Municipality" means any city, county or township; (2) "public safety agency" means any municipal fire department, law enforcement office, sheriff's department, volunteer and non-volunteer fire protection associations, emergency management department, public works department or other similar public or private agency; and (3) "disaster" means the occurrence or imminent threat of widespread or severe damage, injury or loss of life or property resulting from any natural or man-made cause, including but not limited to, fire, flood, earthquake, wind, storm, epidemics, air contamination, blight, drought, infestation, explosion or riot. (b) The governing body of a municipality may establish a policy regarding the provision of assistance to other municipalities and public safety agencies located in other municipalities located within or without the state of Kansas. Such policy shall be established by adoption of the appropriate ordinance or resolution. Such ordinance or resolution shall include the procedure for the provision of assistance during times of disaster. Any ordinance or resolution adopted pursuant to this section shall be consistent with the applicable local or interjurisdictional disaster plan adopted pursuant to K.S.A. 48-901 et seq., and amendments thereto. (c) When providing assistance pursuant to an ordinance or resolution adopted pursuant to this section, the municipality and public safety agency shall be subject to the provisions of all laws, including those providing immunity from liability, as if such municipality or public safety agency was acting within such municipality. Any public safety agency of another state providing assistance in this state pursuant to an ordinance or resolution adopted pursuant to this section shall be subject to the provisions of all laws of

		this state, including those providing immunity from liability, as if such public agency was a public agency within the state of Kansas. (d) A copy of any ordinance or resolution adopted pursuant to this section shall be filed with the emergency preparedness officer of the county. A copy of such ordinance or resolution also shall be filed with the division of emergency preparedness as part of the local or interjurisdictional disaster plan required pursuant to K.S.A. 48-929, and amendments thereto. (e) An ordinance or resolution adopted under the provisions of this section shall not be regarded as an inter-local agreement under the provisions of K.S.A. 12-2901 et seq., and amendments thereto. (f) Nothing in this act shall be construed as invalidating existing mutual aid or disaster relief agreements entered into pursuant to K.S.A. 12-2901 et seq., and amendments thereto. History: L. 1994, ch. 75, § 1; July 1
Mutual Aid; Municipal; Responsibilities	**K.S.A. 48-951**	**Responsibilities of participating political subdivisions.** It shall be the responsibility of each participating political subdivision with jurisdiction over and responsibility for emergency management within such subdivision to: (a) Identify potential hazards that could affect the participating political subdivision, using an identification system common to all participating jurisdictions; (b) conduct joint planning, intelligence sharing and threat assessment development with contiguous participating political subdivisions and conduct joint training; (c) identify and inventory the current services, equipment, supplies, personnel and other resources related to planning, prevention, mitigation and response and recovery activities of the participating political subdivision; and (d) adopt, train on and operate using the national incident management system as approved by division.
Planning, Requirements, Local Emergency Management Agencies	**K.S.A. Article 9, 48-929.**	Emergency Preparedness For Disasters County and city disaster agencies; determination by governor; disaster emergency plans by county, city and interjurisdictional disaster agencies; duties of local officials. (a) Each county within this state shall establish and maintain a disaster agency responsible for emergency management and coordination of response to disasters or shall participate in an interjurisdictional arrangement for such purposes under an interjurisdictional disaster agency as provided in K.S.A. 48-930, and amendments thereto. Except as otherwise provided in this act, each county or interjurisdictional disaster agency shall have jurisdiction over and serve all of each county included thereunder. No county which is included in an interjurisdictional arrangement under the jurisdiction of an interjurisdictional disaster agency pursuant to subsection (a) of K.S.A. 48-930, and amendments thereto, shall establish or maintain a separate disaster agency for such county. (b) The governor shall determine which cities need disaster agencies of their own and, upon such determination, shall require that each such city establish and maintain a disaster agency therefor. The governor shall make such determinations on the basis of each city's disaster vulnerability and capability of response related to population size and concentration. The disaster agency of a county shall cooperate with the disaster agency of any city located within such county, but shall not have jurisdiction within a city having its own disaster agency. The division of emergency management shall publish and keep current a list of cities which are required to have disaster agencies under this subsection.

		(c) The mayor or other principal executive officer of each city required to have a disaster agency and the chairperson of the board of county commissioners of each county shall notify the division of emergency management of the manner in which such city or county is providing or securing disaster planning and emergency services, identify the person who heads the agency responsible for providing such services and furnish additional information relating thereto as the division of emergency management requires. (d) In accordance with the standards and requirements for disaster emergency plans promulgated by the division of emergency management, each county, city and interjurisdictional disaster agency shall prepare and keep current a disaster emergency plan for the area under its jurisdiction, which has been approved after examination and periodic review by the division of emergency management. (e) The county, city or interjurisdictional disaster agency, as the case may be, shall prepare and distribute to all appropriate officials in written form a clear and complete statement of the emergency responsibilities of all local agencies and officials and of the disaster chain of command. (f) Any county and any city which is required to establish a disaster agency under this section, may designate the local council of defense, which was established in accordance with K.S.A. 48-909, and amendments thereto, for such county or city and which was in existence on the day immediately preceding the effective date of this act, as such county or city disaster agency under this section. (g) When the corporate limits of any city extend into two counties, and the city has not been required to establish a disaster agency in accordance with this section and an interjurisdictional agency including such counties has not been established pursuant to K.S.A. 48-930, and amendments thereto, the governing body of such city may petition the board of county commissioners of the two counties to enter into an agreement which designates one of the counties as the disaster agency for such city for the purposes specified in this act. The board of county commissioners of the two counties shall consult and meet with the governing body of the affected city prior to such agreement being approved. If an agreement has not been entered into within one year after the city's petition, the city or either of the counties may petition and the adjutant general shall designate one of the counties as the disaster agency for the city. The adjutant general's designation shall be final and binding on the city and counties until such designation is revised by the adjutant general or by agreement of the two counties in accordance with the procedures in this section. Any agreement entered into in accordance with this section shall meet the requirements of K.S.A. 12-2901 et seq., and amendments thereto, the interlocal cooperation act. History: L. 1975, ch. 283, § 9; L. 1994, ch. 248, § 17; July 1.
Plans, Disaster, Local	**K.S.A. 48-929.**	**County and city disaster agencies; determination by governor; disaster emergency plans by county, city and interjurisdictional disaster agencies; duties of local officials.** (a) Each county within this state shall establish and maintain a disaster agency responsible for emergency management and coordination of response to disasters or shall participate in an interjurisdictional arrangement for such purposes under an interjurisdictional disaster agency as provided in K.S.A. 48-930, and amendments thereto. Except as otherwise provided in this act, each county or interjurisdictional disaster agency shall have jurisdiction over and serve all of each county included thereunder. No county that is included in an interjurisdictional arrangement under the jurisdiction of an interjurisdictional

		disaster agency pursuant to subsection (a) of K.S.A. 48-930, and amendments thereto, shall establish or maintain a separate disaster agency for such county.
Powers, Vehicle, Inspection and Registration, State Agency Cooperation	**K.S.A. Article 13, 66 -1319.**	**Powers granted to members of highway patrol; inspection and registration of vehicles; cooperation of state agencies.** (a) Members of the Kansas highway patrol shall exercise the power and authority of the superintendent of the Kansas highway patrol in the execution of the duties imposed upon the superintendent by this act to the extent that the exercise of such power and authority is delegated to such members by the superintendent or is prescribed by law. In enforcing the laws referred to in K.S.A. 66-1318, and amendments thereto, members of the highway patrol are authorized and empowered to inspect any motor vehicle required by law to comply with any of such laws and rules and regulations relating thereto. Except as otherwise provided in K.S.A. 8-1910, and amendments thereto, whenever any member of the highway patrol shall determine that any vehicle is not properly registered under or not in compliance with any of such laws, such member of the highway patrol may require such vehicle to be driven to the nearest motor carrier inspection station, if there is one within five miles, and if not, to another suitable place, and remain there until the driver thereof has complied with any or all of such laws. Any driver of a vehicle who fails or refuses to drive such vehicle to the nearest inspection station or other suitable place when so directed by a member of the highway patrol shall be deemed guilty of a misdemeanor. (b) The superintendent of the Kansas highway patrol or any other member thereof designated by the superintendent may issue any license, permit, registration or certificate required under any of such laws when so directed by law or by the head of the agency administering such laws. (c) The superintendent of the Kansas highway patrol, the secretary of revenue, the secretary of transportation, the chairperson of the state corporation commission and the animal health commissioner shall cooperate in all functions relating to the enforcement of such laws. **History:** L. 1977, ch. 304, § 4; L. 1988, ch. 266, § 9; L. 2012, ch. 140, § 112; July 1.
Propane Safety and Licensing	**K.S.A 55-1807.**	(a) This act shall be referred to as the Kansas propane safety and licensing act. (b) The state fire marshal shall establish pro- grams relating to the regulation and licensing of the liquefied petroleum gas industry in Kansas. (c) For the purpose of this act: (1) "Liquefied petroleum gas marketer" or "marketer" means any person, firm, corporation, association or other entity engaged directly in the retail sale or retail transport delivery of liquefied petroleum gas; (2) "retail distribution of liquefied petroleum gas" means the delivery, sale or transportation of liquefied petroleum gas to an end retail user; (3) "liquefied petroleum gas" means any material which is composed predominantly of any of the following hydrocarbons or mixtures of the same: propane, propylene, butanes, including, but not limited to, normal butane and isobutane and butylenes; (4) "end retail user" means any consumer, per- son, firm or corporation who utilizes liquefied petroleum gas in Kansas;

		(5) "liquefied petroleum gas system" or "system" means any equipment utilizing liquefied petroleum gas including a storage container, end point or points of combustion, appliances and all attachments utilizing or trans- porting liquefied petroleum gas; (6) "returned to service" means the time at which liquefied petroleum gas is reintroduced into the liquefied petroleum gas system, any part of the liquefied petroleum gas system is repressurized, or at the completion of any installation, modification, repair or service of a system; (7) "interruption of service" means (A) an event which causes a liquefied petroleum gas system to become, in total or in part, depressurized due to any installation, modification, repair, service; or (B) a change in occupancy or ownership of the location utilizing the liquefied petroleum gas system; (8) "state fire marshal" means the fire marshal of the state of Kansas; and (9) "liquefied petroleum gas facilities" means any liquefied petroleum gas facility with an aggregate water capacity exceeding 2,000 gallons. History: L. 2004, ch. 111, § 1; Apr. 22.
Quarantine, Animal, Notice, State Proclamation, Enforcement, State Assistance	**K.S.A. 47-611.**	Quarantine and other regulations; notice of quarantine; proclamation by governor; enforcement; direction by governor; assistance of any state agency. (a) When the animal health commissioner determines that a quarantine and other regulations are necessary to prevent the spread among domestic animals of any contagious or infectious disease, the commissioner shall notify the governor of such determination, and the governor shall issue a proclamation announcing the boundary of such quarantine and the orders and rules and regulations prescribed by the commissioner. Such proclamation shall be published in the Kansas register, except that the commissioner, if the area affected by the quarantine is limited in extent, may dispense with the proclamation of the governor and give such notice as the commissioner shall deem sufficient to make the quarantine effective. (b) Upon a determination by the governor that a quarantine or other regulations are necessary to prevent the spread among domestic animals of any contagious or infectious disease, the governor shall direct the commissioner to establish a quarantine pursuant to this section. (c) The governor may require and direct the cooperation and assistance of any state agency in enforcing such quarantine or other regulations pursuant to subsection (a) or (b). (d) The commissioner shall establish such quarantine immediately and shall give and enforce such directions, rules and regulations as to separating, isolating, handling and treating, feeding and caring for such diseased animals, animals exposed to the disease and animals within the quarantine which have not been immediately exposed, as the commissioner deems necessary to prevent those classes of animals from coming into contact with one another. (e) The animal health commissioner or the commissioner's designee is hereby authorized and empowered to enter any grounds and premises to carry out the provisions of this act.
Radiation, Lead State Agency, Designation,	**K.S.A. Article 16, Chapter 290,**	KDHE's Radiation Control Program is the **Lead Agency** responsible for protecting the health and safety of its citizens from the hazards of radiation sources.
Radiation, Lead State Response	**KDHE**	In a **Radiation Emergency,** KDHE is authorized to issue orders for the protection of the public. This responsibility falls with the KDHE Radiation Control Program.

Agency, Authorities, Responsibilities		After the **Radiation Emergency** incident notification is received by KDHE, staff is responsible for:
		• Evaluating the radiation aspects of the emergency to determine necessary radiation control actions.
		• Providing technical radiation assistance
		  ○ If possible, KDHE's staff will provide information and instructions by phone, unless the emergency is such that staff must be deployed to the scene.
		  ○ Based on the extent of the emergency, KDHE may dispatch a **State Emergency Response Team** to the site.
		• Conducting radiation and contamination surveys.
		• Performing dose assessments.
		• Collecting and analyzing radiation health and safety data.
		• Providing technical information to appropriate authorities.
		• Making protective action recommendations.
		• Issuing appropriate orders where necessary.

Radiation, Planning, State Response, Authorities, Responsibilities	**KDHE**	In **preparing** for a possible **Radiological Emergency**, KDEM is responsible for the development of state response plans, and for overseeing the development of LEOPs or CEOPS. • KDEM receives notification on **ALL** accidents or incidents from county Emergency Management Agencies (EMAs), and is responsible for initiating timely notification and activation of other state agencies.
Radiation, Release, Notification	**KDHE**	In the event of an accident or incident involving radioactive materials licensed by the State of Kansas, the Kansas Radiation Control Program must be notified immediately: • Weekdays 8:00 a.m. to 5:00 p.m. Call **(785) 296-1560**. • Weekends, evenings and holidays: Call **(785) 296-3176.** • **Caller must identify the call as a Radiation Emergency.**
Radiation, Release, Response, Public Information, Roles and Responsibilities	**KDHE**	In the event of a **Radiation Emergency**: • The Adjutant General's **Public Affair's Officer**, in coordination with KDEM, is responsible for the release of information to the general public and media (785-274-1192). • KDHE's Radiation Control Program will submit information for media release to KDEM and the Adjutant General's **Public Affair's Officer** through KDHE's Office of Public Information Services (785-296-5795).
Responder, Benefits	**K.S.A. 48-956.**	**Personnel of participating political subdivision; benefits.** Personnel of a participating political subdivision responding to or rendering assistance for a request who sustain injury or death in the course of, and arising out of, their employment are entitled to all applicable benefits normally available to personnel while performing their duties for their employer. Such personnel shall receive any additional state and federal benefits that may be available to them for line-of-duty deaths. History: L. 2006, ch. 106, § 9; July 1.

Responder, Emergency, Definition	**K.S.A. 48-949.**	(b) "Emergency responder" means any person in the public or private sector who: (1) Has special skills, qualifications, training, knowledge and experience which would be beneficial to a participating political subdivision in response to a locally-declared emergency as defined in any applicable law or ordinance or authorized drill or exercises; and (2) is requested or authorized, or both, to respond. An emergency responder may or may not be required to possess a license, certificate, permit or other official recognition for the emergency responder's expertise in a particular field or area of knowledge. "Emergency responder" may include, but is not limited to, the following: Law enforcement officers, fire fighters, emergency medical services personnel, physicians, nurses, public health personnel, emergency management personnel, public works personnel and persons with skills or training in operating specialized equipment or other skills needed to provide aid in a declared emergency. History: L. 2006, ch. 106, § 2; July 1.
Responder, License, Certification	**K.S.A. 48-954.**	Recognition of license, certificate or other permit issued by participating political subdivision. If a person or entity holds a license, certificate or other permit issued by a participating political subdivision or the state evidencing qualification in a professional, mechanical or other skill and the assistance of such person or entity is requested by a participating political subdivision, the person or entity shall be deemed to be licensed, certified or permitted in the political subdivision requesting assistance for the duration of the declared emergency or authorized drills or exercises, subject to any limitations and conditions the chief executive of the participating political subdivision receiving the assistance may prescribe by executive order or otherwise. History: L. 2006, ch. 106, § 7; July 1.
Retail distribution of liquefied petroleum gas		K.S.A 55-1808. Application of act. (a) No person, firm, corporation, association or other entity shall engage in any activity relating to the retail distribution of liquefied petroleum gas, including, but not limited to, the manufacturing, assembling, modifying, fabrication, installing or selling of any system, container or apparatus to be used in the state of Kansas for the transportation, storing, dispensing or utilization of liquefied petroleum gas by an end retail user without first having obtained the proper license to do so as pro- vided in this act. (b) This act shall not apply to vehicles utilizing or machinery utilizing liquefied petroleum gas, the filling of cylinders by owners for private use, liquefied petroleum gas systems with a capacity of less than 20 gallons of liquefied petroleum gas or storage containers with a water capacity of 100 lbs or less unless otherwise stated in this act. (c) Systems of liquefied petroleum gas with multiple storage containers serving different purposes or different geographical locations shall be treated as individual and separate systems. History**:** L. 2004, ch. 111, § 2; Apr. 22.
SERC, Kansas, CEPR, Responsibilities		The CEPR facilitates a coordinated effort for mitigation, preparedness, response, and recovery from emergencies and disasters in Kansas. The CEPR has the following functions, powers, and duties: 1. Carry out all requirements of the federal EPCRA. a. To appoint, supervise and coordinate the activities of each LEPC. b. To receive certain reports and notifications required by EPCRA. c. To make facility reports and notifications available to the public. d. To annually review local emergency response plans prepared by the LEPCs.

		2. Provide assistance and advice in establishing policy for the coordination of state agency activities relating to emergency training, preparedness, planning and response. 3. Provide assistance and advice in establishing policy and procedures for chemical release reporting and prevention, transportation, manufacture, storage, handling, and use. 4. Facilitate and advise the division of emergency management, the adjutant general, and others in the preparation and implementation of all emergency plans prepared by state agencies. 5. Facilitate and advise the division of emergency management, the adjutant general, and others in the preparation and implementation of statewide, interjurisdictional, and local emergency plans prepared in accordance with state and federal law. 6. Designate, and revise as necessary, the boundaries of the emergency planning districts in accordance with the federal act. 7. Approve the local emergency planning committee for each emergency planning district. 8. Review reports about responses to disaster emergencies and make recommendations to the appropriate parties involved in the response concerning improved prevention, mitigation, and prepared- ness. 9. Provide assistance and advice to the division of emergency management and the adjutant general in coordinating, advising, or planning tasks related to community right-to-know reporting, toxic chemical release reporting, management of hazardous substances, emergency planning and preparedness for all types of hazards, and emergency planning and preparedness for all types of disasters. 10. Recommend procedures to integrate, as appropriate, hazardous substance response planning. 11. Provide recommendations and advice to the adjutant general and the secretary of health and environment regarding the adoption of regulations as authorized to carry out the purposes of all state hazard preparedness and planning laws and the federal act. 12. Approve the fees established by rules and regulations of the adjutant general to cover all or part of the total operational costs of implementing the provisions of the federal act. 13. Provide assistance and advice to the division of emergency management and the adjutant general in developing and implementing a plan for regional emergency medical response teams.
SERC, State Lead Agency, Delegation of Responsibilities	Subchapter I—Emergency Planning And Notification **§11001**	**(a) Establishment of State emergency response commissions** Not later than six months after October 17, 1986, the Governor of each State shall appoint a State emergency response commission. The Governor may designate as the State emergency response commission one or more existing emergency response organizations that are State- sponsored or appointed. The Governor shall, to the extent practicable, appoint persons to the State emergency response commission who have technical expertise in the emergency response field. The State emergency response commission shall appoint local emergency planning commit- tees under subsection (c) of this section and shall supervise and coordinate the activities of such committees. The State emergency response commission shall establish procedures for receiving and processing requests from the public for information under section 11044 of this title, including tier II information under section 11022 of this title. Such procedures shall include the designation of an official to serve as coordinator for

		information. If the Governor of any State does not designate a State emergency response commission within such period, the Governor shall operate as the State emergency response commission until the Governor makes such designation.
State; Emergency act; Severability	**K.S.A. 48-958.**	**Severability**. If any provision of this act or its application to any person or circumstance is held invalid, the invalidity shall not affect any other provision or application of the act which can be given effect without the invalid provision or application. To this end the provisions of this act are severable. History: L. 2006, ch. 106, § 11; July 1
State; Property; Lease, Sale, Loan; to Federal or Local Governments	**K.S.A. 48-914.**	**Lease, sale or loan of state property to federal or local governments; transfer of personnel; cities and counties authorized to contract.** Notwithstanding any inconsistent provision of law: (a) Whenever the adjutant general, with approval of the governor, deems it to be in the public interest, he or she may: (1) Authorize any department or agency of the state to lease or lend, on such terms and conditions as he or she may deem necessary to promote the public welfare and protect the interests of the state, any real or personal property of the state government to the president, the heads of the armed forces, or to the civil defense agency of the United States. (2) Enter into a contract on behalf of the state for the lease or loan to any political subdivision of the state on such terms and conditions as he or she may deem necessary to promote the public welfare and protect the interests of the state, of any real or personal property of the state or under the jurisdiction or control of the state government, or the temporary transfer or employment of personnel of the state government to or by any political subdivision of the state. (3) Enter into a contract on behalf of the state to provide by lease or purchase to any individual in this state, any services, materials or equipment of the state, or under the jurisdiction or control of the state, for the purpose of alleviating hardships and distress of such individual arising from a disaster, and receive reimbursement on behalf of the state in whole or in part for such services, materials or equipment. (b) The mayor of any city or the chairman of the board of county commissioners of any county of the state may: (1) Enter into such contract or lease with the state, or accept any such loan, or employ such personnel, and such political subdivision may equip, maintain, utilize and operate any such property and employ necessary personnel therefore in accordance with the purposes for which such contract is executed. (2) Do all things and perform any and all acts, which he or she may deem necessary to effectuate the purpose for which such contract was entered into. History: L. 1951, ch. 323, § 13; L. 1955, ch. 263, § 11; L. 1975, ch. 283, § 24; April 11.
Toxics Release Inventory (TRI), requirement and submission	**42 USC Section 313.**	• Facilities must complete and submit a toxic chemical release inventory form (Form R) annually. • Form R must be submitted for each of the over 600 TRI chemicals that are manufactured or otherwise used above the applicable threshold quantities.
Trade Secrets, Withholding	**42 USC Section 322.**	Facilities are allowed to withhold the specific chemical identity from the reports filed under sections 303, 311, 312 and 313 of EPCRA if the facilities submit a claim with substantiation to EPA.

data upon request		
Underground Tanks, Above Ground Abandonment	**K.A.R. 22-7-12 KFMO**	**Aboveground abandonment of underground tanks.** (a) Any underground tanks previously containing flammable or combustible liquids which are abandoned above ground shall be marked on two sides, in legible numbers not less than eight inches tall, the month, day and year the tank was first abandoned. The local fire department shall be notified of the location of any site where any group of tanks having a combined capacity of more than 12,000 gallons is abandoned. (b) The tank owner shall be responsible for: (1) Purging the tank of vapors; (2) insuring that explosive concentrations of vapors cannot gather inside the tank; and (3) insuring that no opening of the tank is accessible to children. (c) Tanks abandoned for more than twelve months shall then be rendered unusable by the tank owner by disassembly or other appropriate means which shall permit the free circulation of air throughout the tank. (d) No underground tank shall be reinstalled for aboveground use without being certified for such use by meeting the requirements of UL standard 142 or equivalent. (Authorized by and implementing K.S.A. 1991 Supp. 31-133; effective May 10, 1993.)
Release; HazMat; Definition	**Pub. L. 99–499, title III, §329, Oct. 17, 1986, 100 Stat. 1757.**	**Release** (8) The term ''release'' means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles) of any hazardous chemical, extremely hazardous substance, or toxic chemical.
Facility, HazMat; Definition	**Pub. L. 99–499, title III, §329, Oct. 17, 1986, 100 Stat. 1757.**	**(4) Facility** The term ''facility'' means all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (or by any person which controls, is controlled by, or under common control with, such person). For purposes of section 11004 of this title, the term includes motor vehicles, rolling stock, and aircraft.
Toxic Chemical; Reporting; Threshold	**Pub. L. 99–499, title III, §329, Oct. 17, 1986, 100 Stat. 1757.**	**(f) Threshold for reporting** (1) Toxic chemical threshold amount The threshold amounts for purposes of re- porting toxic chemicals under this section are as follows: (A) With respect to a toxic chemical used at a facility, 10,000 pounds of the toxic chemical per year. (B) With respect to a toxic chemical manufactured or processed at a facility— (i) For the toxic chemical release form required to be submitted under this section on or before July 1, 1988, 75,000 pounds of the toxic chemical per year. (ii) For the form required to be submit- ted on or before July 1, 1989, 50,000 pounds of the toxic chemical per year. (iii) For the form required to be submit- ted on or before July 1, 1990, and for each form thereafter, 25,000 pounds of the toxic chemical per year.

Toxic Chemical; Regulated; Federal Law	**Pub. L. 99–499, title III, §329**	**(c) Toxic chemicals covered** The toxic chemicals subject to the requirements of this section are those chemicals on the list in Committee Print Number 99–169 of the Senate Committee on Environment and Public Works, titled ''Toxic Chemicals Subject to Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986'' [42 U.S.C. 11023] (including any revised version of the list as may be made pursuant to subsection (d) or (e) of this section).
Plans; LEPCs; Comprehensive Emergency Response Plans	**Pub. L. 99–499, title III, §11003.**	**Comprehensive emergency response plans** (a) Plan required Each local emergency planning committee shall complete preparation of an emergency plan in accordance with this section not later than two years after October 17, 1986. The committee shall review such plan once a year, or more frequently as changed circumstances in the com- munity or at any facility may require. (b) Resources Each local emergency planning committee shall evaluate the need for resources necessary to develop, implement, and exercise the emergency plan, and shall make recommendations with respect to additional resources that may be required and the means for providing such additional resources. (c) Plan provisions Each emergency plan shall include (but is not limited to) each of the following: (1) Identification of facilities subject to the requirements of this subchapter that are with- in the emergency planning district, identification of routes likely to be used for the transportation of substances on the list of extremely hazardous substances referred to in section 11002(a) of this title, and identification of additional facilities contributing or subjected to additional risk due to their proximity to facilities subject to the requirements of this subchapter, such as hospitals or natural gas facilities. (2) Methods and procedures to be followed by facility owners and operators and local emergency and medical personnel to respond to any release of such substances. (3) Designation of a community emergency coordinator and facility emergency coordinators, who shall make determinations necessary to implement the plan. (4) Procedures providing reliable, effective, and timely notification by the facility emergency coordinators and the community emergency coordinator to persons designated in the emergency plan, and to the public, that a re- lease has occurred (consistent with the emergency notification requirements of section 11004 of this title). (5) Methods for determining the occurrence of a release, and the area or population likely to be affected by such release. (6) A description of emergency equipment and facilities in the community and at each facility in the community subject to the requirements of this subchapter, and an identification of the persons responsible for such equipment and facilities. (7) Evacuation plans, including provisions for a precautionary evacuation and alter- native traffic routes. (8) Training programs, including schedules for training of local emergency response and medical personnel.

		(9) Methods and schedules for exercising the emergency plan. (d) Providing of information For each facility subject to the requirements of this subchapter: (1) Within 30 days after establishment of a local emergency planning committee for the emergency planning district in which such facility is located, or within 11 months after October 17, 1986, whichever is earlier, the owner or operator of the facility shall notify the emergency planning committee (or the Governor if there is no committee) of a facility representative who will participate in the emergency planning process as a facility emergency coordinator. (2) The owner or operator of the facility shall promptly inform the emergency planning committee of any relevant changes occurring at such facility as such changes occur or are expected to occur. (3) Upon request from the emergency planning committee, the owner or operator of the facility shall promptly provide information to such committee necessary for developing and implementing the emergency plan.

Resources:

- Federal http://www.gpo.gov/fdsys/pkg/USCODE-2011-title42/pdf/USCODE-2011-title42-chap116.pdf
- State Statutes http://www.kslegislature.org/li/b2013_14/statute/

Appendix 2: Defining Local Critical Infrastructure (CI)

What is CI? A National Perspective

According to the U.S. DHS, CI (formerly CIKR) are the assets, systems, and networks, whether physical or virtual, so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health or safety, or any combination thereof."

> "The term "critical infrastructure" has the meaning provided in section 1016(e) of the USA Patriot Act of 2001 (42 U.S.C. 5195c(e)), namely systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters."
>
> PRESIDENTIAL POLICY DIRECTIVE/PPD-21
> Critical Infrastructure Security and Resilience
> February 12, 2013

DHS is the lead coordinator in the national effort to identify and prioritize the Nation's CI. Through the National Critical Infrastructure Prioritization Program (NCIPP), DHS conducts annual Level 1 and Level 2 data calls (formerly Tier 1 and Tier 2) to identify domestic infrastructure, which if disrupted, could critically impact public health and safety, economic, and national security. Two additional lists were created, a Sector List (Level 3) developed by each sector and a State List (Level 4) developed by each state and territory. The Sector and State lists identify infrastructure that does not satisfy Level 1 and Level 2 criteria, but which is highly important to a given sector or state.

Submissions to the Level 1 and Level 2 lists are provided by state homeland security agencies to DHS, to be considered for special funding allocation and prioritization of state and federal efforts during incidents' response and recovery phases.

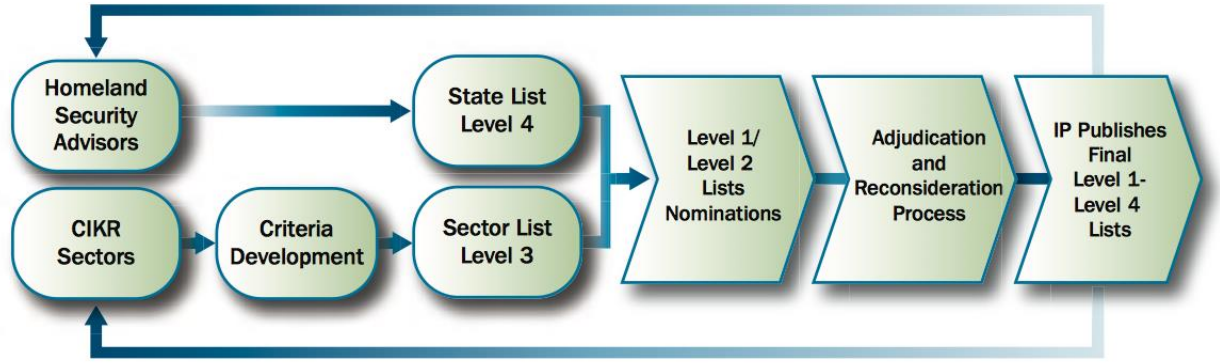
In theory, the same data is to be used to prioritize local response efforts. However, not all assets considered CI by local governments are on these lists. For example, Food and Agriculture (FA) Sector assets are oftentimes key to the economic wellbeing of communities throughout the Planning Area, but they are unlikely to be included in the Level 1 or Level 2 lists, based on the Sectors distributed organization and flexibility. In fact, these sites may not qualify under the criteria for Levels 3 and 4 Lists. In addition, what can be a large-scale emergency for a county or a region may not constitute a national level event.

Changes to the federally established eligibility criteria for Lists 1-4 have been incorporated since 2009. Some are noted below:

- Level 1 criterion remains very similar and includes specific thresholds (for death and economic impact) as well as mission disruptions and mass evacuations. *Based on the published criteria for Level 1 lists, no asset in Kansas is likely to qualify.*
- Level 2 criteria mirror the Level 1 criteria but have lower thresholds. Both sets of criteria are cross-sector in nature and do not incorporate sector-specific considerations.
- The SSAs, in coordination with sector partners, developed criteria for the sector list; each State and territory individually developed criteria for the State lists, in accordance with basic guidance from DHS.
- The sector (Level 3) and State list (Level 4) criteria can be much more expansive than the Level 1 and Level 2 criteria and are meant to be highly flexible.

> *"The FA Sector is systems-based, not asset-based; therefore, the identification of FA Sector-specific critical assets has been difficult…*
>
> *State personnel have not previously responded uniformly to the request for lists of assets that meet the criteria used, and consequently, DHS has removed many of the submitted assets from the list".*
>
> Food and Agriculture Sector Specific Plan, 2010

Figure 1 DHS Data Call Process



The main purpose of all four lists (Level 1–Level 4) is to provide a common basis that DHS and CI sector partners can use to develop and implement important CI protection programs and initiatives. The lists will continue to be used to focus planning, foster coordination, and support effective incident management, response, and restoration activities by DHS, Federal and state, local, tribal and territory (SLTT) governments, and private sector partners.

States and territories have been encouraged to use FASCAT[46] to determine their critical systems and subsystems for the annual national DHS data call. Each State can submit its top five weighted FASCAT scores critical summary, with system and subsystem identification, when nominating CI for the State or territory list.

Perspective of LEPCs and Municipalities on CI for this R-CFS

This project requires CI identification by the LEPCs. Not all CI listed in the county or regional inventories will be critical to the Kansas or the nation. However, the loss of a single CI may overwhelm critical functions of a municipality, hamper emergency response agency deployment, and cause extended unemployment and more. **The CI identification effort for this project was directed toward the primary identification of assets near transportation infrastructure and the chemical industry.** Because of the focus of the project, and to maintain alignment with federal and state efforts, the CI list created by the participating counties, is named **Limited Level 5 CI List.** A secondary objective was to establish a general starting point for future, more comprehensive planning efforts. The **Limited Level 5 CI List** generated by each county is a solid foundation, but should be considered a "snapshot in time". Local development, industry changes and attrition will require future updates.

- The process began with a request of **local CI data** (for each county in the Planning Area) from KDEM[i]. Emergency Managers from the 19 counties in the Planning Area evaluated the existing Level 4 List and recognized the need to develop a more expansive list for local use.
- EMFusion reviewed the national **CI Sector Specific Plans** to establish general target facility or asset types.
- The national **Level 1 and Level 2 List's** criterion (in particular number of deaths and impacts) were set aside, and a much reduced criterion was developed for each identified CI Sector.
- Existing CIs identified through other initiatives were reviewed, including the most recent regional hazard mitigation plans, and the 2011 Regional Hazard Analysis.
- As time permitted, County Emergency Managers reached out to municipalities within the jurisdiction to identify additions to the countywide CI.
- Emergency Managers, based on known interdependencies, identified regional CIs for inclusion in the **Limited Level 5 CI List.**
- One CI Sector in particular (Financial Sector) was excluded from the **Level 5 List** generated through this project. Identification of assets in this sector will need to be considered for future planning efforts.

[46] FASCAT Guide online at http://www.foodshield.org/fascat/docs/v3guidance.pdf

Designating Local Critical Infrastructure

Emergency Managers agreed that following the national approach was a good starting point to define critical systems/assets based on how incapacitating their damage could be to their jurisdictions and municipalities.

The identification approach was based on the same general framework, but its application was modified to reflect the varied **significance of impact** to local governments and regional partners. However, the same general areas of emphasis were considered: Security, economy, public health and safety.

The same CI Sectors identified by the federal government were followed, namely:

- Chemical.
- Commercial Facilities.
- Communications.
- Critical Manufacturing.
- Dams.
- Defense Industrial Base (included in the Limited CI List 5 because of their employment base).
- Emergency Services.
- Energy.
- Financial Services (Excluded from analysis).
- Food and Agriculture.
- Government Facilities.
- Heath Care and Public Health.
- Information Technology.
- Nuclear Reactors, Materials and Waste.
- Transportation Systems.
- Waste and Wastewater Systems.

Table 24 General Criterion for Establishing a Limited CI Level 5 List for the Chemical Sector Criticality

Limited CI Level 5 List
Those CI that, if disrupted, could result in at least two of the following consequences:
1. Greater than 50 prompt fatalities. 2. Greater than $1 million in first-year economic consequences. 3. Mass evacuations with a prolonged absence of greater than 72 hours. 4. Severe degradation of the local transportation Sector. 5. Regional impact if more than one county is affected.

Each county has the liberty to establish its own criteria, based on local resources and capabilities.

Chemical Sector

Chemical[47]–Table 24 below has been modified to develop a Limited Level 5 List. The Chemical Sector includes the following sub sectors:

Basic Chemicals are produced in large volumes to be incorporated into other manufactured products, or to be used as aids in processing.

1. Inorganic chemicals such as sodium chloride, sulfuric acid, lime (calcium oxide), sodium carbonate, and chlorine.

[47] 2010 Chemical Sector-Specific Plan http://www.dhs.gov/xlibrary/assets/nipp-ssp-chemical-2010.pdf

2. Bulk petrochemicals and intermediates such as ethanol, propylene, and ethylene dichloride.
3. Petrochemical derivatives such as polyvinylchloride (PVC), polyethylene and phenolic resins.

Specialty Chemicals are differentiated products manufactured in lower volumes than basic chemicals and are used for a specific purpose, such as a functional ingredient or as processing aids in the manufacture of a diverse range of products. Included are chemicals functioning as adhesives; explosives; catalysts; cosmetic, food, and plastic additives; flavors and fragrances; rubber processing chemicals; and other specialty uses.

1. **Agricultural Chemicals**, which are related to basic and specialty chemicals. A distinguishing feature is that one end-use customer—farmers—clearly dominates demand patterns. The business includes two major segments: fertilizers and crop protection.
2. **Pharmaceuticals**, including prescription and over-the-counter drugs, in vitro and other diagnostic substances for human or veterinary use, bacterial and viral vaccines, plasma and other biological products for human or veterinary health, and vitamins and other pharmaceutical preparations. This segment also includes biotechnology that cuts across pharmaceuticals and diagnostics with applications in crop seeds, value-added grains, and enzymes, among others.
3. **Consumer products** formulated with a high degree of differentiation, including soap, detergents, toothpaste, hair and skin care products, cosmetics, and perfume, among others. A distinguishing feature is that consumer products are packaged goods.

Commercial Facilities Sector[48]

The **Commercial Facilities (CF)** sector includes a variety of assets, systems, and networks (e.g., stadiums, movie theaters, hotels, theme parks, fairs, arenas, and office buildings). The Commercial Facilities Sector is subdivided in Subsectors including:

1. **Entertainment and Media** represents owners and operators of media production facilities (e.g., television and motion pictures), print media companies (e.g., newspapers, magazines, and books), and broadcast companies (e.g., television and radio stations).
2. **Gaming Facilities** represents the owners and operators of casinos, hotels, conference centers, arenas, and shopping centers associated with those casinos.
    a. The Lodging Subsector represents the owners and operators of non-gaming resorts, hotels and motels, hotel-based conference centers, and bed-and-breakfast establishments.
3. **Outdoor Events** represents the owners and operators of amusement parks, fairs, exhibitions, parks, and other outdoor venues.
4. **Public Assembly** represents the owners and operators of convention centers, auditoriums, stadiums, arenas, movie theaters, cultural properties, and other assets where large numbers of people congregate.
    a. Cultural properties are a very large and very diverse segment of the Public Assembly Subsector.
    b. Cultural properties include, but are not limited to, museums, zoos, planetariums, aquariums, libraries, and performance venues.
5. **Real Estate** represents the owners and operators of office buildings and office parks, apartment buildings, multi- family towers and condominiums, self-storage facilities, and property management companies.
6. **Retail** represents the owners and operators of enclosed malls, shopping centers, strip malls, and freestanding retail establishments.
7. **Sports Leagues** was amended to represent the local and regional sports leagues and sports broadcasting networks.

[48] Commercial Facilities Sector Specific Plan, 2010, online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-commercial-facilities-2010.pdf accessed June 12, 2014.

Communications Sector[49]

The national plan[50] has not subdivided the Communications Sector into specific categories. The plan recognizes that "degradation or disruption of a communications service does not directly lead to national impacts. Consequences are dependent on how user missions (industry or government) rely on communications services" and that the "a limited local outage could result in national impacts if a key government or commercial user, who is extremely dependent on the communications network, is affected and the nature of the effects lead to significant impacts." Therefore, rather than focusing on the system, the plan views as the criticality of the function that depends on such a system to establish priorities.

> "Currently, the FCC requires wireless and broadcasting infrastructure owners to file information on equipment location and type. Wireline infra- structure operators submit data annually to the FCC to allow for the measurement of competition and service quality. The information required in these filings includes a summary of infrastructure (e.g., the number of access lines), service quality, and financial data. Furthermore, the FCC requires wireline, wireless, cable, and satellite carriers to report network outages."
>
> Communications Sector Specific Plan, 2010

The national Communications Sector Specific Plan explains that "to determine which assets, systems, and networks are most critical during situational impact analyses, infrastructure elements supporting the following missions" should be considered.

The amended list for the **Limited Level 5 List** includes:

1. Local and Regional Security /Emergency Responders.
2. Continuity of Operations (COOP)/Continuity of Government (COG) missions (e.g. fiscal networks for processing revenue collection, accounts payable, etc.)
3. Public health and safety (e.g. PSAPs, hospitals).
4. Core network/IP backbone (e.g. communications connectivity).
5. Financial markets, amended to limit consideration of "Financial Markets" to CI specific to the Food and Agriculture Sector (e.g. the rumor or a single head of livestock infected with a foreign animal disease has the potential to impact the livestock's futures market).
6. Critical infrastructure or resources supporting response/recovery (e.g. transportation, electric power).
7. Communications warning systems (e.g. cell towers, outdoor warning systems, etc.)

Table 25 Communications Sector Consequences of Concern

HSPD-7 Consequence	Consequences of Primary Concern to Communications Sector
Human Impact: Effects on human life and physical well-being (e.g., fatalities and injuries)	• Emergency communications (e.g., public safety answering points (PSAPs), first responders) • Hospitals and other public health facilities
Economic Impact: Direct and indirect effects on the economy	• Financial markets • Communications supporting CI response and recovery (e.g., transportation, electric power) • Core network and Internet backbone (national communications connectivity) Distributed control systems

[49] Communications Sector Specific Plan, 2010, online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-communications-2010.pdf accessed June 12, 2014.

Impact on Public Confidence: Effects on public morale and confidence in national economic and political institutions	• Communications supporting CI response and recovery • Core network and Internet backbone (national communications connectivity)
Impact on Government Capabilities: Effects on the government's ability to maintain order, deliver minimum essential public services, ensure public health and safety, and carry out national security-related missions	• NS/EP communications • Continuity of Operations (COOP)/Continuity of Government (COG) communications • Law enforcement communications

Critical Manufacturing (CM) Sector

Products made by these manufacturing industries are considered essential to other critical infrastructure sectors.[51] **This sector is affected by failures in transportation systems**.

The importance of this sector at the local level is based on employment numbers and it's the impact on the local tax base, and potential casualties that exceed response capabilities.

"The CM Sector overlaps with, and is dependent on, the Transportation Systems Sector with regard to the transportation of materials by land, water, and air. Modes of transportation used to ship products in various stages of the value chain include ships, barges, trains, trucks, airplanes, and pipelines. Harm to the Transportation Systems Sector has the potential to seriously hinder the movement of materials and products and cause cascading effects throughout the CM Sector and its customers."

Critical Manufacturing Sector Specific Plan, 2010

Primary Metal Manufacturing

Primary Metals Manufacturing converts raw materials into assemblies, intermediate products, and end products. Products may include sheet metal, bar stock, I-beams, slabs, or pipes. Primary Metals Manufacturing assets, systems, and networks typically include manufacturing facilities, processing and distribution facilities, sales offices and corporate headquarters, and product storage. Primary Metals Manufacturing includes iron and steel mills and ferro-alloy manufacturing; alumina and aluminum production and processing; and non-ferrous (copper, lead, etc.) metal production and processing.

- Iron and Steel Mills and Ferro Alloy Manufacturing.
- Alumina and Aluminum Production and Processing.
- Nonferrous Metal (except Aluminum) Production and Processing.

The importance of this sector at the local level is based on employment numbers and it's the impact on the local tax base, and potential casualties that exceed response capabilities.

Machinery Manufacturing

Machinery Manufacturing includes engine, turbine, and power-transmission equipment manufacturing. Machinery Manufacturing assets, systems, and networks typically include manufacturing facilities, processing and distribution facilities, sales offices and corporate headquarters, and product storage.

- Engine, Turbine, and Power Transmission Equipment Manufacturing.

[51] Critical Manufacturing Sector Specific Plan online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-critical-manufacturing-2010.pdf accessed July 9, 2014.

The importance of this sector at the local level is based on employment numbers and it's the impact on the local tax base, and potential casualties that exceed response capabilities.

Electrical Equipment, Appliance, and Component Manufacturing

Electrical Equipment Manufacturing includes specialized equipment, assemblies, intermediate products, and end products for power generation such as transformers, electric motors and generators, and industrial controls. Electrical Equipment Manufacturing assets, systems, and networks typically include manufacturing facilities, processing and distribution facilities, sales offices and corporate headquarters, and product storage.

- Electrical Equipment Manufacturing.
- Transportation Equipment Manufacturing - Transportation Equipment Manufacturing includes auto and truck manufacturing, aerospace product and parts manufacturing, railroad rolling stock manufacturing, and other transportation equipment manufacturing. Heavy Equipment Manufacturing includes earth moving, mining, agricultural, construction, and other heavy material handling equipment. Transportation and Heavy Equipment Manufacturing assets, systems, and networks typically include manufacturing facilities, processing and distribution facilities, sales offices and corporate headquarters, and product storage.
- Vehicle Manufacturing.
- Aviation and Aerospace Product and Parts Manufacturing.
- Railroad Rolling Stock Manufacturing.

The importance of this sector at the local level is based on employment numbers and it's the impact on the local tax base, and potential casualties that exceed response capabilities.

Dams Sector

In 2013, the State Legislature defined jurisdictional dams to be 25' or more in height, or six feet or more in height with the ability to store 50 acre-feet or more of water from the auxiliary spillway.

The Kansas' Watershed District Act formed watershed districts tasked with providing flood protection as well as better conserving, developing, using, and disposing of water. These districts have taxing power and have built more than 1,400 small floodwater-retarding dams, subsequent to U.S. Public Law 83-566 (P.L. 566), the Watershed Protection and Flood Prevention Act.

"Importance of dams to Kansas farmers. Today dam construction allows many farmers in former flood-prone areas to more timely till, plant, and harvest; use more land; and avoid floodplain scour and sediment damage. Almost all of Kansas' more than one hundred forty thousand (140,000) dams are earthen embankments with the vast majority built for irrigation and stockwater reservoirs.

Importance of dams to Transportation… Several railroad dams remain today… and are now part of city parks…. the Kansas Department of Transportation maintains several dams associated with roadways, including those channeling overflow water. State roads and bridges, too, benefit from flood-control dams that reduce costly road upgrading after flooding events. "

Dam History in Kansas
Kansas Department of Agriculture

For this R-CFS, the importance of this sector at the local level is based on the proximity to transportation modes, and impact on potential response time.

Table 26 Dams Sector Taxonomy

Category	Segment	Examples of Components
Dam Projects ("Dams") As special cases, it includes the following: Navigation Projects Hydropower Projects	Water Retention Structures	· Embankment Section · Concrete Section
	Water Control Structures	· Spillway · Outlet Works
	Impoundments	· Reservoir
	Hydropower Facilities	· Conventional Plant · Run-of-the-River Plant · Pumped Storage Plant
	Navigation Structures	· Navigation Lock
	Water Transmission Structures	· Canal
	Operation and Control Facilities	· Remote Operation Facility · Control Center
	Public Access Facilities	· Visitor Center · Parking
Flood Damage Reduction Systems ("Levees")	Flood Protection Structures	· Levee · Flood Wall · Dike
	Water Control Structures	· Pumping Station · River Control Structure
	Water Transmission Structures	· Canal
Hurricane and Storm Surge Protection Systems	Structural Protection Systems	· Hurricane Barrier · Dike · Shoreline Protection Structure · Levee
	Non-Structural Protection Systems	· Wetlands
Mine Tailings and Industrial Waste Impoundments	Impoundment Retention Structures	· Impounding Structure
	Impoundment Control Structures	· Spillway · Outlet Works
	Impoundments	· Tailings · Industrial Waste Residuals

- Dam projects - Dam projects are complex facilities that may include multiple water impoundment or control structures, reservoirs, spillways, outlet works, powerhouses, and canals or aqueducts. In some cases, navigation locks are also part of the project.
- Hydropower plants
- Navigation locks (not applicable to the Planning Area)

- Levees - Levees (and flood risk reduction systems in general) may feature multiple components that include embankment sections, as well as floodwall sections, pumps and pumping stations, interior drainage works, flood damage reduction channels, and other important elements.
    - Federally Built, Owned, Operated, and Maintained: These levees are part of flood protection projects that were authorized by Congress and built, owned, operated, and maintained by USACE; the United States Section of the International Boundary and Water Commission (IBWC); and other Federal agencies.
    - Federally Built and Locally Owned, Operated, and Maintained: These levee projects were constructed by USACE but were turned over to a local sponsor (e.g., State, county, city, town, special district, federally recognized Indian tribe or tribal organization, Alaska Native Corporation, or any political subpart of a State or group of States) to own, operate, and maintain.
    - Included in the Rehabilitation and Inspection Program: These levees were not federally built but are incorporated into the USACE Rehabilitation and Inspection Program at the request of the local community. An initial eligibility inspection must be performed by USACE, and projects can only stay in the program if they are properly maintained and operated by the local community.
    - Non-Federally (e.g., State or Local Government or Private) Built, Owned, Operated, and Maintained: These levees encompass a flood protection project that was not authorized by Congress or any other Federal agency authority.
- Dikes.
- Hurricane barriers (Not applicable to the Planning Area)
- Mine tailings and other industrial waste impoundments - The mining industry, electric power generation, and manufacturing industries often use impoundment structures to store and dewater waste. In the coal industry, embankment structures used for the disposal of fine coal waste are referred to as slurry impoundments; in other extractive industries, the structures used for the disposal of fine mine waste are referred to as tailings ponds. In other industries, they may be referred to as surface or industrial waste impoundments. The primary goal of these impoundments is the storage of tailings or mine waste, which are transported suspended in water and settle out in the impoundment.
    - These impoundments typically have features similar to dams, including key trenches, internal drains, filters, spillways, and outlet works. Some industrial impoundments, particularly large diked structures in arid regions, are constructed without spill- ways or outlet works and are designed instead to store the design storm quantity above the maximum normal pool and draw the pool back down using floating-pump systems. Stormwater diversions may also be used to divert water around the pond to preserve its integrity during heavy rainfall.
    - Impoundments pose possible health and safety risks to the surrounding population and property if breached. The typical size of impoundments has grown over the years, with some measuring more than 20,000 acre-feet and hundreds of feet high. Unlike traditional dam structures, waste material may be released with any breach, causing environmental damage to down- stream or down-valley ecosystems. In addition to aboveground risk of failure, impoundments at mine sites may break through to underground active or inactive mines if not constructed with regard to the underlying workings. Past spills at mine sites, processing facilities, and coal ash locations illustrate the hazards inherent in these waste containment structures.
    - Impoundments can be subject to Federal and/or State regulations. For example, as authorized by the Federal Mine Safety and Health Act, the Mine Safety and Health Administration regulations require approved plans for dams at coal mines if the dam impounds water, sediment, or slurry to

an elevation of 5 feet or more above the upstream toe with a storage volume of 20 acre- feet or more; impounds water, sediment, or slurry 20 feet or more above the upstream toe; or presents a hazard to miners as determined by the local district manager.

- Other similar water retention and water control facilities.

The term "sector assets" is used to denote the facilities and systems included as part of the Dams Sector. The term "dams" is used to denote dam projects since it is the more commonly used term, and the term "levees" is used to denote levee projects or flood risk reduction systems. It is important to note that these terms encompass physical, cyber, and human elements.

Consequences of an event impacting this sector can be divided into four main categories:

- Public Health and Safety: The effects on human life and physical wellbeing (e.g., fatalities, injuries/illness, etc.).
- Economic: Direct and indirect economic losses (e.g., the cost to rebuild the asset, the cost to respond to and recover from an attack or incident, the downstream costs resulting from disruption of a product or service, and long-term costs due to environmental damage).
- Psychological: The effects on public morale and confidence in national economic and political institutions (encompassing changes in perception emerging after a significant incident that affects the public's sense of safety and well-being and can manifest in aberrant behavior).
- Government/Mission Impact: The effects on government or industry's ability to maintain order, deliver minimum essential public services, ensure public health and safety, and carry out national security-related missions.

Table 27 Consequence Based Top Screen Parameters[52]

[52] Dams Sector online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-dams-2010.pdf accessed July 9, 2014

Consequence Category	Consequence Parameter	Measurement Unit
Human Impacts	Total Population at Risk (PAR)	Number of people
	PAR 0–3 miles	Number of people
	PAR 3–7 miles	Number of people
	PAR 7–15 miles	Number of people
	PAR 15–60 miles	Number of people
Economic Impacts	Asset Repair/Replacement Cost	Millions of dollars
	Remediation Cost	Millions of dollars
	Business Interruption Cost	Millions of dollars/year
Impacts on Critical Functions	Water Supply: Population Served	Number of people
	Irrigation: Annual Water Deliveries	Millions of dollars/year Acre-feet/year
	Hydropower Generation: Total Installed Capacity	Megawatts
	Flood Damage Reduction: Annual Damages Prevented	Millions of dollars/year
	Inland Navigation: Annual Navigation Tonnage	Kilotons/year
	Recreation: Annual Recreational Visitors	Number of people/year

The Dams Sector has interdependencies with a wide range of other sectors, including:

- The Emergency Services Sector - Emergency response sometimes rely on Dams Sector assets for firefighting water supply, emergency water supply, and waterway access during a significant disaster where access by land is impossible.
- The Energy Sector - Hydropower dams produce approximately 8 to 12 percent of the nation's power needs.
- The Food and Agriculture Sector - Dams Sector assets are a source of water for our nation's food and agriculture production.
- **The Transportation Systems Sector** - Dams and locks manage navigable waters throughout inland waterways for shipping and recreation.
- The Water and Wastewater Systems Sector - Water and wastewater management systems rely on Dams Sector assets to provide water to large populated areas and commercial facilities.

Defense Industrial Base Sector[53]

[53] Defense Industrial Base Sector Plan, online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-defense-industrial-base-2010.pdf, accessed July 9, 2014.

The Defense Industrial Base Sector is the worldwide industrial complex that enables research and development, as well as design, production, delivery, and maintenance of military weapons systems, subsystems, and components or parts, to meet U.S. military requirements.

The importance of this sector at the local level is based on employment numbers and it's the impact on the local tax base, and potential casualties that exceed response capabilities.

Emergency Services (ES)[54]

The ESS is further defined by the following five disciplines and six specialized capabilities that make up the sector. See Table 28 Emergency Services Sector - Disciplines and Capabilities below.

Seven distinguishing characteristics help to define the ESS as a CI sector. These characteristics contribute to the sector profile and represent important factors for consideration in addressing sector security:

- The most critical feature of the sector is its large, geographically distributed base of facilities, equipment, and highly skilled personnel who provide services in both paid and volunteer capacities.
- For the Planning Area, it is organized at the local, tribal and state and territorial levels of government, corresponding to the scales on which emergencies generally occur. The complex and dispersed nature of the sector makes it difficult to disable the entire system, but it also presents challenges in coordinating emergency responses across disciplines, regions, and levels of government.
- It relies heavily on complex communication and information technology systems to enable robust communications and appropriate coordination and management of diverse elements during emergency situations.
- It utilizes specialized transportation vehicles and secure transportation routes to facilitate sector operations because personnel, equipment, aid, and victims must be moved to and from scenes of emergencies.
- It has dependencies and interdependencies with multiple CI sectors and the National Response Framework's Emergency Support Functions that supply elements for the operation and protection of ESS assets.
- The sector focuses primarily on the protection of other sectors and people, rather than protecting the sector itself, which presents unique challenges in addressing the protection of Emergency Services (ES) as a CI sector.
- ES involves primarily the public sector, but also includes private sector holdings, such as industrial fire departments, sworn private security officers, and private EMS providers.

To conduct a risk assessment of this sector, the ESS Sector Plan recommends three general risk assessment layers:

(1) Facility-specific or fixed assets (e.g., fire or police stations, 9-1-1 call centers, or emergency operations centers, vehicle storage facilities, etc.)
(2) Specialized emergency services assets or systems (e.g. System risk priorities generally relate to the elements that build the system and the entities that rely on and manage the 9-1-1 call centers, HAZMAT, or SWAT teams.)
(3) Multiple systems or networks in the region or multiple regions.

[54] Emergency Services Sector Specific Plan, online at https://www.hsdl.org/?view&did=736909 accessed July 9, 2014.

Table 28 Emergency Services Sector - Disciplines and Capabilities

ESS Disciplines	ESS Specialized Capabilities
• *Law Enforcement* • *Fire and Emergency Services* • *Emergency Management* • *Emergency Medical Services* • *Public Works*	• *Hazardous Materials* • *Search and Rescue* • *Explosive Ordnance Disposal* • *Special Weapons and Tactics and Tactical Operations* • *Aviation Units* • *Public Safety Answering Points*

For this R-CFS, the importance of the ES sector at the local level is based on impact to response capabilities.

Energy Sector[55]

The Energy Sector, as defined by HSPD-7, consists of thousands of electricity, oil, and natural gas assets that are geographically dispersed and connected by systems and networks. Therefore, interdependency within the sector and across the Nation's critical infrastructure sectors is critical.

The importance of this sector at the local level is based on employment numbers and it's the impact on the local tax base, potential casualties that exceed response capabilities, and impact to response capabilities.

[55] Energy Sector Specific Plan http://www.dhs.gov/xlibrary/assets/nipp-ssp-energy-2010.pdf accessed July 9, 2014.

Table 29 Segments of the Energy Sector

Electricity	Petroleum	Natural Gas
• Generation – Fossil Fuel Power Plants » Coal » Natural Gas » Oil – Nuclear Power Plants[a] – Hydroelectric Dams[a] – Renewable Energy • Transmission – Substations – Lines – Control Centers • Distribution – Substations – Lines – Control Centers • Control Systems • Electricity Markets	• Crude Oil – Onshore Fields – Offshore Fields – Terminals – Transport (pipelines)[a] – Storage • Petroleum Processing Facilities – Refineries – Terminals – Transport (pipelines)[a] – Storage – Control Systems – Petroleum Markets	• Production – Onshore Fields – Offshore Fields • Processing • Transport (pipelines)[a] • Distribution (pipelines)[a] • Storage[b] • Liquefied Natural Gas Facilities[b] • Control Systems • Gas Markets

[a] Hydroelectric dams, nuclear facilities, rail, and pipeline transportation are covered in other SSPs.

[b] Certain infrastructure of this asset type are regulated by the Chemical Facility Anti-Terrorism Standards (CFATS). The final tiering of the facilities covered by the CFATS was not completed at the time of this report.

Financial Services (FS) [56]

Financial institutions are organized and regulated based on the services the institutions provide. Therefore, the profile is best described by defining the services offered. These categories include: (1) deposit and payment systems and products; (2) credit and liquidity products; (3) investment products; and (4) risk transfer products. All aforementioned critical services are executed upon, or delivered through, IT-based platforms and channels; therefore cybersecurity components are factored into all critical infrastructure protection related activities performed by the sector.

The Financial Services sector is not considered directly dependent on the Transportation Sector; therefore it is not addressed in this R-CFS.

Food and Agriculture (FA) Sector[57]

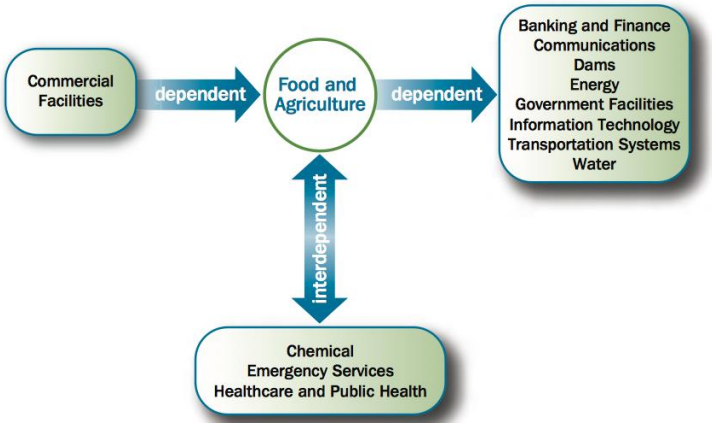
The Food and Agriculture Sector has critical dependencies with many sectors, but particularly with the following:

- Water and Wastewater Systems, for clean irrigation and processed water.
- Transportation Systems, for movement of products and livestock.
- Energy, to power the equipment needed for agriculture production and food processing.
- Financial Services, Chemical, and Dams.

[56] Financial Services Sector Specific Plan, online at http://www.dhs.gov/sites/default/files/publications/nipp-ssp-banking-and-finance-2010.pdf accessed July 9, 2014.

[57] Food and Agriculture Sector Specific Plan, 2010, online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-food-ag-2010.pdf accessed July 9, 2014.

Table 30 FA Sector Dependencies and Interdependencies



The FA Sector Taxonomy is divided in the following categories:

- Supply
- Processing, Packaging, Production
- Agricultural and Food Product Storage
- Agricultural and Food Product Transportation
- Agricultural and Food Processing Product Distribution
- Agricultural and Food Supporting Facilities
- Regulatory, Oversight, and Industry Organizations
- Other Agriculture and Food

The Bioterrorism Act of 2002 defines "Food" in Section 201(f) of the Federal Food, Drug, and Cosmetic Act as "(1) articles used for food or drink for man or other animals, (2) chewing gum, and (3) articles used for components of any such article." Examples of "food" include:

- Dietary supplements and dietary ingredients.
- Infant formula.
- Beverages (including alcoholic beverages and bottled water).
- Fruits and vegetables.
- Fish and seafood.
- Dairy products and shell eggs.
- Raw agricultural commodities for use as food or components of food.
- Canned and frozen foods.
- Bakery goods, snack food, and candy (including chewing gum).
- Live food animals.
- Animal feeds and pet food.

"The FA Sector is vast, with an excess of 100,000 production and processing facilities located throughout the country, and count- less facilities overseas in foreign countries that export foods and food products to the United States. Because multiple facilities throughout the country produce and distribute the same or similar products, destruction of a single establishment, in many instances, will not have a substantial impact on the Nation's food supply. The system has significant ability to compensate for naturally occurring events (flooding, wild fires, and hurricanes). The naturally occurring phenomena occur quite frequently, and responsible authorities can prepare, train, mitigate,

respond, and recover in a more definitive and effective manner. The ability of the FA Sector to compensate for unforeseen manmade hazards or intentional contamination is daunting."
"The FA Sector is systems-based, not asset-based; therefore, the (national) identification of FA Sector-specific critical assets has been difficult. State personnel have not previously responded uniformly to the request for lists of assets that meet the criteria used, and consequently, DHS has removed many of the submitted assets from the list."[58]

Although the federal government, with input from the FA Sector, created FAS-CAT to help identify critical assets in the sector, it is a reporting mechanism for DHS. The tool was designed to assist States, in partnership with both the private sector and other regional partners as appropriate, in determining the most critical elements, nodes, and systems in the sector's CIKR. **Local governments, however, must evaluate FA assets based on other criteria, such as the significance of those in employment and local economies.**

The importance of this sector at the local level is based on employment numbers and it's the impact on the local tax base, potential casualties that exceed response capabilities, and facilities that house large quantities of Hazmat used for agricultural purposes.

Government Facilities Sector[59]

The Government Facilities Sector includes a wide variety of buildings, located in the United States and overseas, that are **owned or leased** by federal, state, local, and tribal governments. Many government facilities are open to the public for business activities, commercial transactions, or recreational activities while others that are not open to the public contain highly sensitive information, materials, processes, and equipment. These facilities include general-use office buildings and special-use military installations, embassies, courthouses, national laboratories, and structures that may house critical equipment, systems, networks, and functions. In addition to physical structures, the sector includes cyber elements that contribute to the protection of sector assets (e.g., access control systems and closed-circuit television systems) as well as individuals who perform essential functions or possess tactical, operational, or strategic knowledge.

The sector covers the facilities owned and operated by the more than 87,000 municipal governments across the Nation.

The Government Facilities Sector shares dependencies and interdependencies with all other critical infrastructure sectors, including but not limited to the Communications, Energy, Information Technology, and Water.

The importance of this sector at the local level is based on employment numbers and it's the impact on the local tax base, potential casualties that exceed response capabilities, impact to vulnerable populations, and the ability to continue government functions.

Education Facilities Subsector (EFS)[60]

[58] Food and Agriculture Sector Specific Plan, 2010, online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-food-ag-2010.pdf accessed July 9, 2014.
[59] Government Facilities Sector Specific Plan, 2010, online at https://www.hsdl.org/?view&did=736907 accessed July 9, 2014.
[60] Educational Facilities Subsector Snapshot, online at http://www.dhs.gov/xlibrary/assets/nppd/nppd-ip-education-facilities-snapshot-2011.pdf accessed July 9, 2014.

The EFS encompasses pre-kindergarten (preK) through 12th grade (preK–12) and post-secondary public, private, and proprietary education facilities. “Education facilities (preK through postsecondary) differ in comparison to other CI sectors or subsectors requiring infra- structure protection, as education facilities house mostly students for the majority of the day, five days a week or more, and often include after-school and evening activities and events. Further, education facilities are nontraditional emergency response agents, making comprehensive, all-hazards emergency management plans that are practiced and coordinated with community partners (e.g., law enforcement, fire, emergency management services, public health, local government) critical for the subsector…. although most schools have some level of security, plans that increase infrastructure protection and resilience constitute a universally applicable and subsector appropriate protective measure that can work to prevent or mitigate an incident and the subsequent consequences, enhancing resilience for the education facility and the surrounding community”.

The Education Facilities Subsector shares dependencies and interdependencies with the following sectors: Food and Agriculture, Chemical, Commercial Facilities, Emergency Services, and Transportation Systems.

“Interdependencies in the subsector relate to the relationship between EFS’ schools and their surrounding community. Education facilities are not traditional response organizations; they are more typically recipients of first responder services provided by fire and rescue, emergency medical, and law enforcement agencies. This traditional relationship is acknowledged in building emergency management capacity. District, school, and campus participation in the local government’s preparedness efforts is essential to ensure that first responder services are delivered to campuses in a timely and effective manner. This relationship and mutual goal is supported and facilitated by the EFS mission and protective programming put forth. Additional interdependencies include community use of schools as shelters during emergencies (recent examples include Gulf Coast hurricanes and West Coast wildfires).”

“… EFS facilities and campuses have additional assets that fall under the purview of other sectors whose protective measures include those specific assets. For example, the school campus can possess numerous critical assets and systems to be administered and maintained, such as transportation systems, campus stadiums and arenas, and food delivery, storage, preparation, and distribution, including the Department of Agriculture Child Nutrition Programs such as the National School Lunch and School Breakfast Programs. Many higher education campus settings can also include hospitals and research facilities employing chemical or nuclear materials, in addition to biologically hazardous or radioactive material. Such assets constitute cross-sector assets and fall within the primary authority of other sectors (described in section 1.2) and their respective protective initiatives and efforts. EFS coordinates with cross-sector Federal partners as appropriate. For example, EFS works with the Transportation Systems Sector’s highway motor carrier mode to provide insight to their efforts as well as identify and disseminate applicable resources to the school and higher education community.”

“CI Owners and Operators:

a) School districts.
b) Public and private preK–12 schools.
c) Public and private higher education institutions, including proprietary schools.
d) Educational organizations and associations.”

Health Care and Public Health (HPH) Sector[61]

"The HPH Sector provides a diverse array of goods and services that are distributed widely across the country. It includes not only acute care hospitals and ambulatory healthcare, but also the vast and complex public-private systems that finance that care. It includes population-based care provided by health agencies at the Federal, State, local, tribal, and territorial levels, as well as other public health and disease surveillance functions. It incorporates a large system of private sector enterprises that manufacture, distribute, and sell drugs, vaccines, and medical supplies and equipment, as well as a network of small businesses that provide mortuary services. All these goods and services are provided in and by means of a complex environment of research, regulation, finance, and public policy."

Table 31 HPH Sector Specific Dependencies

Sector	HPH Sector Dependency
Transportation	Movement of supplies, raw materials, pharmaceuticals, personnel, emergency response units, patients, and fatalities
Communications	Radio and telephone communications supporting a wide variety of business processes
Energy	Electric, natural gas, propane, and diesel fuel to power and run facility functions and vehicles
Water	Healthcare, pharmaceutical operations, and sanitation services
Emergency Services	Coordination with first-responders and emergency medical services; includes local law enforcement for security for various emergencies
Information Technology	Business and clinical information systems
Postal and Shipping	Movement of equipment and supplies
Chemical	Support to the pharmaceutical industry
Food and Agriculture	Food production and distribution for healthcare and public health personnel and patients

"Most public health authority is based in the States, typically as an exercise of their police powers. States use this authority in a number of ways to protect public health, including enforcing safety and sanitation codes, conducting inspections, mandating the reporting of certain diseases to State authorities, compelling isolation or quarantine, and licensing healthcare workers and facilities. Most States can declare public health emergencies, temporarily expanding their powers still further. States often delegate responsibility for some public health activities to local governments. Many public hospitals are owned and operated by special districts and governed by their own locally elected officials, who report to their own constituencies. These local governing bodies that own and operate hospitals are not Federal, State, or county agencies. Many have their own ordinance-making authority."
The HPH Sector Specific Plan (2010) identifies the following types of organizations as critical in the development of the plan.

The importance of this sector at the local level is based on proximity to transportation mode, employment numbers and it's the impact on the local tax base, impact to vulnerable populations, and potential casualties that exceed response capabilities.

- **Direct Health Care**–Healthcare systems and medical facilities. This includes residential care sites (nursing homes, mental health facilities, etc.)

[61] Health Care and Public Sector Specific Plan, 2010, online at https://www.hsdl.org/?view&did=736910 accessed July 9, 2014.

- **Health Information and Medical Technology**—Medical research institutions, and local companies that provide medical records repository services, if known.
- **Mass Fatality Management**—Cemeteries, cremation, and funeral homes.
- **Medical Materials**—Medical equipment and supply manufacturers and distributors.
- **Pharmaceuticals/Laboratories/Blood**—Pharmaceutical manufacturers, drug store chains, laboratories, and blood banks.

In Kansas, KDHE licenses providers in seven categories of health care facilities, which are required to be licensed under state law. Those categories are defined below.

- **Ambulatory Surgical Center** means an establishment with an organized medical staff of one or more physicians; with permanent facilities that are equipped and operated primarily for the purpose of performing surgical procedures; with continuous physician services during surgical procedures and until the patient has recovered from the obvious effects of anesthetic and at all other times with physician services whenever a patient is the facility; with continuous registered professional nursing services whenever a patient is in the facility; and which does not provide services or other accommodations for patients to stay more than 24 hours.
- **Comprehensive Outpatient Rehabilitation Facility** means a Medicare certified nonresidential facility that is established and operated exclusively for the purpose of providing diagnostic, therapeutic, and restorative services to outpatients for the rehabilitation of injured, disabled, or sick persons, at a single fixed location, by or under the supervision of a physician.
- **Critical Access Hospital** means a member of a rural health network which makes available 24 hour emergency care services; provides not more than 15 acute inpatient beds for providing inpatient care for a period not to exceed 96 hours (with certain exceptions); provides inpatient extended care services (if approved for swing bed status) so long as the combined total of extended care and acute care beds does not exceed 25; and provides nursing services under the direction of a licensed professional nurse and continuous professional nursing services for not less than 24 hours of every day when any bed is occupied or the facility is open to provide services for patients (with exceptions).
- **Dialysis Facility** means a Medicare certified supplier of at least one End Stage Renal Disease treatment service such as dialysis, transplantation and self-dialysis/home dialysis training.
- **Home Health Agency** means a public or private agency or organization or a subdivision or subunit of such agency or organization that provides for a fee one or more home health services at the residence of a patient but does not include local health departments which are not federally certified home health agencies, durable medical equipment companies which provide home health services by use of specialized equipment, independent living agencies, the Kansas Department of Social and Rehabilitation Services and the Kansas Department of Health and Environment.
- **Hospice** means a Medicare certified public agency or private organization or subdivision of either of these that is primarily engaged in providing care to terminally ill (i.e. with a medical prognosis of 6 months or less to live) individuals.
- **Hospital** means an establishment with an organized medical staff of physicians; with permanent facilities that include inpatient beds; and with medical services, including physician services, and continuous registered professional nursing services for not less than 24 hours of every day, to provide diagnosis and treatment for patients who have a variety of medical conditions.
- **Outpatient Provider of Physical/Other Therapy** means a Medicare certified rehabilitation agency, which provides at a minimum physical therapy or speech-language pathology services and social or vocational adjustment services as part of a multi-disciplinary rehabilitation program.
- **Portable X-ray** means a Medicare certified supplier of portable x-ray examination services ordered by a doctor of medicine or osteopathy.

- **Psychiatric Hospital** means either a private psychiatric hospital licensed by DCF and certified by Medicare or a state psychiatric hospital licensed by KDHE and certified by Medicare.
- **Rural Health Clinic** means a Medicare certified outpatient clinic located in a rural area designated as a shortage area, is not a rehabilitation agency or a facility primarily for the care and treatment of mental diseases which furnishes those diagnostic and therapeutic services and supplies commonly furnished in a physician´s office and which, unless granted a waiver, uses a physician assistant or a nurse practitioner at least 50% of the time the clinic operates.
- **Special Hospital** means an establishment with an organized medical staff of physicians; with permanent facilities that include inpatient beds; and with medical services, including physician services, and continuous registered professional nursing services for not less than 24 hours of every day, to provide diagnosis and treatment for patients who have specified medical conditions.
- **Public Psychiatric Hospitals**.

The Kansas Department on Aging and Disabilities licenses Private Psychiatric Hospitals

Psychiatric Hospital (private psychiatric hospitals are licensed by the Kansas Department for Aging and Disability Services while public psychiatric hospitals are licensed by KDHE),.

Information Technology Sector (IT)[62.]

"…The IT Sector is a functions-based sector that comprises not only physical assets but also virtual systems and networks that enable key capabilities and services in both the public and private sectors. Six critical functions support the sector's ability to produce and provide high assurance IT products and services for various sectors. These functions are required to maintain or reconstitute networks (e.g., the Internet, local networks, and wide area networks) and their associated services". The IT Sector's six critical functions are:

- Provide IT products and services.
- Provide incident management capabilities.
- Provide domain name resolution services.
- Provide identity management and associated trust support services.
- Provide Internet-based content, information, and communications.
- Provide Internet routing, access, and connection services.

IT Sector risk management approaches focus on two levels:

- **The individual enterprise level**: Private sector entities typically base their enterprise approaches on business objectives, such as shareholder value, efficacy, and customer service, while public sector entities usually base their enterprise approaches on ensuring mission effectiveness or providing a public service. Enterprise-level risk management approaches typically involve cybersecurity initiatives and practices to maintain the health of information security programs and infrastructures.
- **The sector or national level:** At the sector or national level, the IT Sector manages risk to its six critical functions to promote the assurance and resilience of the IT infrastructure and to protect against cascading consequences based on the sector's inter-connectedness and the critical functions' interdependencies.

The importance of this sector at the local level is based on employment numbers and it's the impact on the local tax base, impact of downed systems on emergency response, potential casualties that exceed response capabilities, and ability to continue government functions.

[62] Information Technology Sector Specific Plan, 2010, online at http://www.dhs.gov/publication/information-technology-sector-specific-plan accessed July 9, 2014.

For future planning considerations, EMFusion recommends that Emergency Managers collect information on IT providers who are located in their jurisdiction and provide services to local government:

- Internet service providers (ISPs).
- Internet backbone providers.
- Internet portal and e-mail providers.
- Networking hardware companies (e.g., systems manufacturers producing router, firewall, security appliance, wide area network (WAN) accelerators, application gateways, other comprehensive platforms, fiber-optics makers and line acceleration hardware manufacturers) and other hardware manufacturers (e.g., personal computers, servers, and information storage);
- Software companies.
- Security services vendors.
- Communications companies that have an IT role with local government
- Edge and core service providers

In this process, it is important to consider critical functions, and the consequences of the function being disrupted or degraded:

- Potential for loss of life, injuries, or adverse impact on public health and safety.
- Critical information systems and its impact on critical government functions.
- Number of users could be severely affected.
- Economic impacts to the jurisdiction (number of employees, revenue generated)
- The maximum amount of time that the function or process can be disrupted or degraded and still meet the minimal needed functionality in a timely manner.
- Possibility to switch to alternate sources and the time required.

Nuclear Reactors, Materials, and Waste Sector[63]

The sector is interdependent with other critical infrastructure sectors, including:

- Chemical as a consumer of hazardous chemicals at fuel cycle facilities.
- Energy as a supplier of electricity to the nation's electrical grid.
- Healthcare and Public Health as a supplier of nuclear medicine, radiopharmaceuticals and in the sterilization of blood and surgical supplies.
- Transportation Systems through the movement of radioactive materials.
- Mixed waste processing sites.

The importance of this sector at the local level is based on radioactive materials transported through the area via ground transportation (rail or highways).

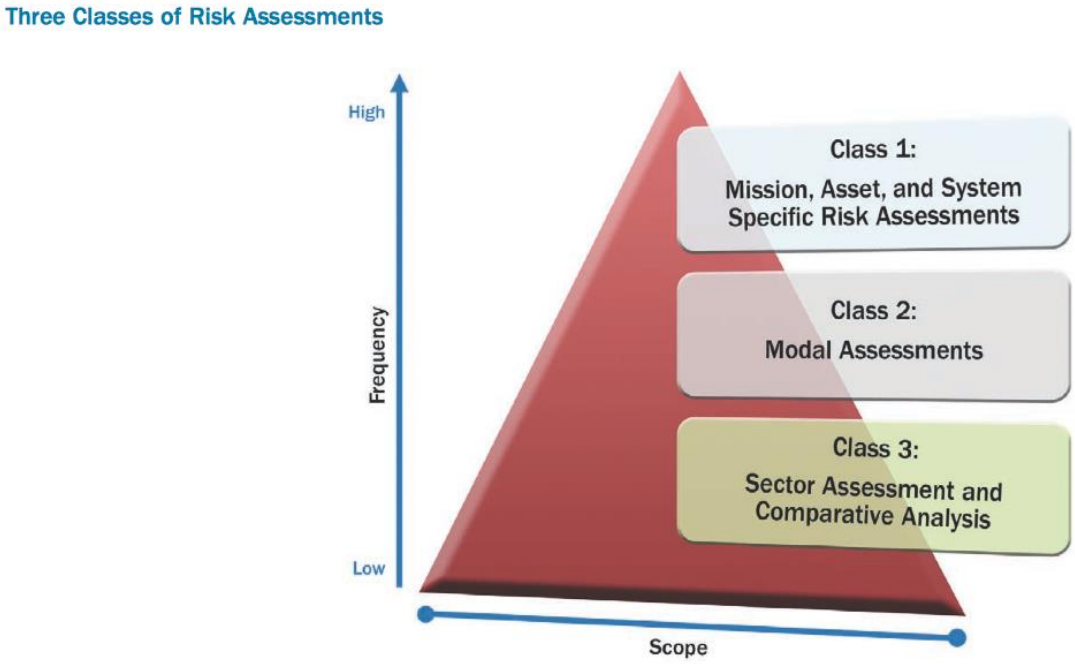
Transportation Systems Sector[64]

The National Transportation Systems Sector Specific Plan identifies seven key subsectors, or modes:

[63] Nuclear Reactors, Materials and Waste Sector Specific Plan, 2010, online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-nuclear-2010.pdf accessed July 9, 2014.
[64] Transportation System Sector – Specific Plan, 2010, online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-transportation-systems-2010.pdf accessed July 9, 2014.

- **Aviation** includes aircraft, air traffic control systems, and approximately 450 commercial airports and 19,000 additional airports, heliports, and landing strips. This mode includes civil and joint use military airports, heliports, short takeoff and landing ports, and seaplane bases.
- **Highway Infrastructure and Motor Carrier** encompasses miles of roadway, and bridges. Vehicles include automobiles, motorcycles, trucks carrying hazardous materials, other commercial freight vehicles, motorcoaches, and school buses.
- **Mass Transit and Passenger Rail** includes service by buses, and rail transit (Amtrack and Class 3 Trains).
- **Pipeline Systems** consist of vast networks of pipeline that traverse hundreds of thousands of miles throughout the country, carrying nearly all of the nation's natural gas and about 65 percent of hazardous liquids, as well as various chemicals. These include approximately 2.2 million miles of natural gas distribution pipelines, about 168,900 miles of hazardous liquid pipelines, and more than 109 liquefied natural gas processing and storage facilities.
- **Freight Rail** consists of seven major carriers, hundreds of smaller railroads, over 140,000 miles of active railroad, over 1.3 million freight cars, and roughly 20,000 locomotives. Further, over 12,000 trains operate daily. The Department of Defense has designated 30,000 miles of track and structure as critical to mobilization and resupply of U.S. forces.
- **Postal and Shipping** moves over 574 million messages, products, and financial transactions each day. Postal and shipping activity is differentiated from general cargo operations by its focus on letter or flat mail, publications, or small- and medium-size packages and by service from millions of senders to nearly 152 million destinations.

Table 32 Sector defined risk assessments



Class 1 Assessments, or MASSRA, focus on one or more of the risk elements or on scenario-specific assessments (e.g., a blast effect analysis on a certain type of conveyance). Physical security self-assessments conducted by transportation service providers that estimate vulnerability are within the MASSRA category. These assessments generally do not cross jurisdictional lines and have a narrow, specific focus.

Class 2 Assessments are modal risk assessments used to identify how best to determine high-risk focus areas within a mode of transportation. These assessments also help to establish the sector's priorities for a specific mode.
Class 3 Assessments are cross-modal comparative analyses focusing on two or more modes, or on the entire sector. These analyses help identify strategic planning priorities and define long-term visions. Cross-modal analyses inform key leadership decisions and policies, including investments in countermeasures.
Assessments may focus on a single risk factor or consider all three: threat, vulnerability, and consequence. Threat assessments typically rate an adversary's capability and intent to execute a particular attack scenario. Consequence assessments consider one or more of the following: repair or reconstruction costs; health and human safety; economic impact; national security; and cross-sector effects. Vulnerability assessments determine the weakness in the physical, cyber, human, or operational aspects of the infrastructure that render it open to exploitation or susceptible to hazards.

The R-CFS falls in line with a Class 2 Assessment, but it is specific to the movement of hazardous materials along pre-determined roads and highways, and includes a temporal analysis of vehicle traffic through locally defined sites. In addition, it considers possible impacts at limited intermodal junctions.

> "Risks associated with the interface between modes require special consideration. Intermodal risks occur where the infrastructures of several modes converge, such as transit terminals, bridges, or tunnels; or where goods being transported by one mode are transferred to another. Intermodal risks are being addressed through training and education, drills and exercises, assessments and compliance activities, unpredictable deterrent activities, R&D, risk analyses and modeling, information sharing, and response and recovery planning."
>
> Transportation Systems Sector Specific Plan, 2010

Water and Wastewater Sector[65]

According to the Water and Wastewater Sector Specific plan "there are approximately 160,000 public drinking water systems and more than 16,000 publicly owned wastewater treatment systems in the United States. Approximately 84 percent of the U.S. population receives their potable water from these drinking water systems, and more than 75 percent of the U.S. population has its sanitary sewerage treated by these wastewater systems."

According to the Water and Wastewater Sector Specific Plan, "The Water Sector is composed of a diverse set of drinking water and wastewater utilities or "assets," which are defined as entire systems for purposes of identification, prioritization, and coordination within the sector. The primary sources for Water Sector asset data are periodic surveys and audits performed by EPA (e.g., collecting operational, financial, and customer data from water and wastewater utilities). By virtue of EPA's approach to meet its mission under the SDWA and CWA, inventories for all Water Sector utilities are updated routinely; as a result, the sector does not require separate or additional data collection efforts to gather asset-level information."[66]

The Water and Wastewater Sector Specific Plan notes that "The Water Sector is also vulnerable to disruptions to other CI sectors given the interdependencies with other sectors. A disruption in many of the aforementioned interdependent sectors could have cascading effects on drinking water treatment and supply as well as wastewater collection and treatment."

For this reason, this R-CFS includes the location of water treatment plants, water sources (surface and ground, including watersheds), water towers, and wastewater collection and treatment sites as part of the Critical

[65] Water and Wastewater Sector Specific Plan, 2010, online at http://www.dhs.gov/xlibrary/assets/nipp-ssp-water-2010.pdf accessed July 9, 2014.
[66] IBID

Infrastructure Inventory. However, the location of these facilities is not reflected on maps, in line with the process created by the Adjutant General's Department.

Appendix 3 Hazard Classes[67]

1. Explosives
2. Gas
3. Flammable Liquids (100°F or less, closed cup)
4. Other Flammable Substances
5. Oxidizing Substances & Organic Peroxides
6. Toxic (Poisonous) & Infectious Substances
7. Radioactive Materials
8. Corrosives
9. Miscellaneous Dangerous Goods

Class 1 Explosives



Division 1.1 - Articles and substances having a mass explosion hazard





Division 1.2 - Articles and substances having a projection hazard, but not a mass explosion hazard





Division 1.3 - Articles and substances having a fire hazard, a minor blast hazard, and/or a minor projection hazard, but not a mass explosion hazard



[67] Source: Oklahoma State University, online.





Division 1.4 - Articles and substances presenting no significant hazard (explosion limited to package)



Division 1.5 - Very insensitive substances having a mass explosion hazard



Division 1.6 - Extremely insensitive articles which do not have a mass explosion hazard

Class 2 Gas



Division 2.1 - Flammable Gas



Division 2.2 - Non-flammable, non-toxic gas (under pressure, inert, etc.)



Division 2.3 - Toxic Gas

Class 3 Flammable Liquids (100 Degrees F or less closed cup)





Class 4 Other Flammable Substances



Division 4.1 - Flammable Solid



Division 4.2 - Substances liable to spontaneous combustion



Division 4.3 - Substances which, in contact with water, emit flammable gases

Class 5 Oxidizing Substances and Organic Peroxides



Division 5.1 - Oxidizers



Division 5.2 - Organic Peroxides

Class 6 Toxic (Poisonous) and Infectious Substances





Division 6.1 - Toxic Substances




Division 6.2 - Infectious Substances

Class 7 Radioactive Material



Division 7 - Radioactive Material

Class 8 Corrosives



Division 8 - Corrosives

Class 9 Miscellaneous Dangerous Goods

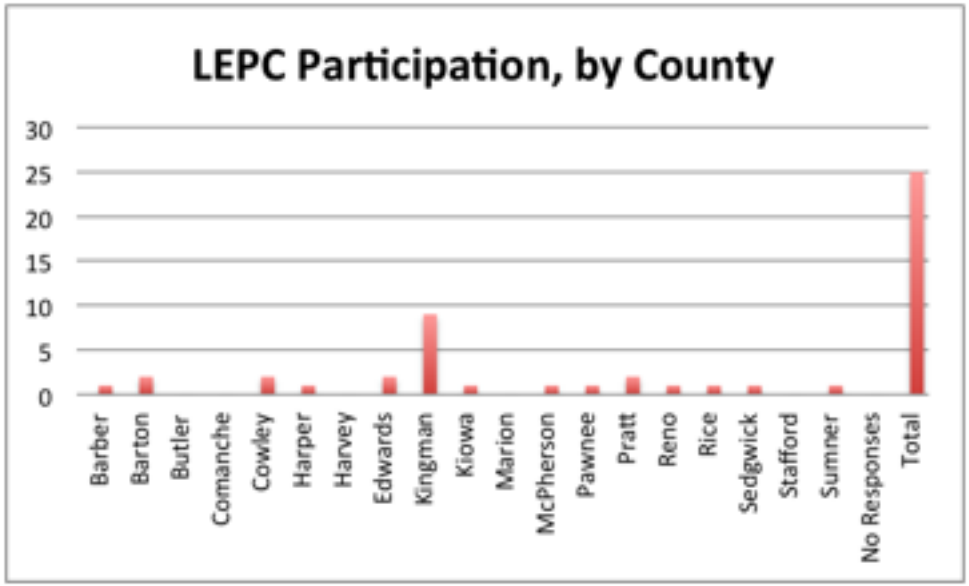


Magnetized material
Elevated temperature goods
Dry ice
Asbestos
Environmentally hazardous substances
Life-saving appliances
Engines, internal combustion
Polymeric beads
Battery-powered equipment or vehicle
Zinc Dithonite

LEPC Leadership Survey Results

Aug 06, 2014 9:06:03

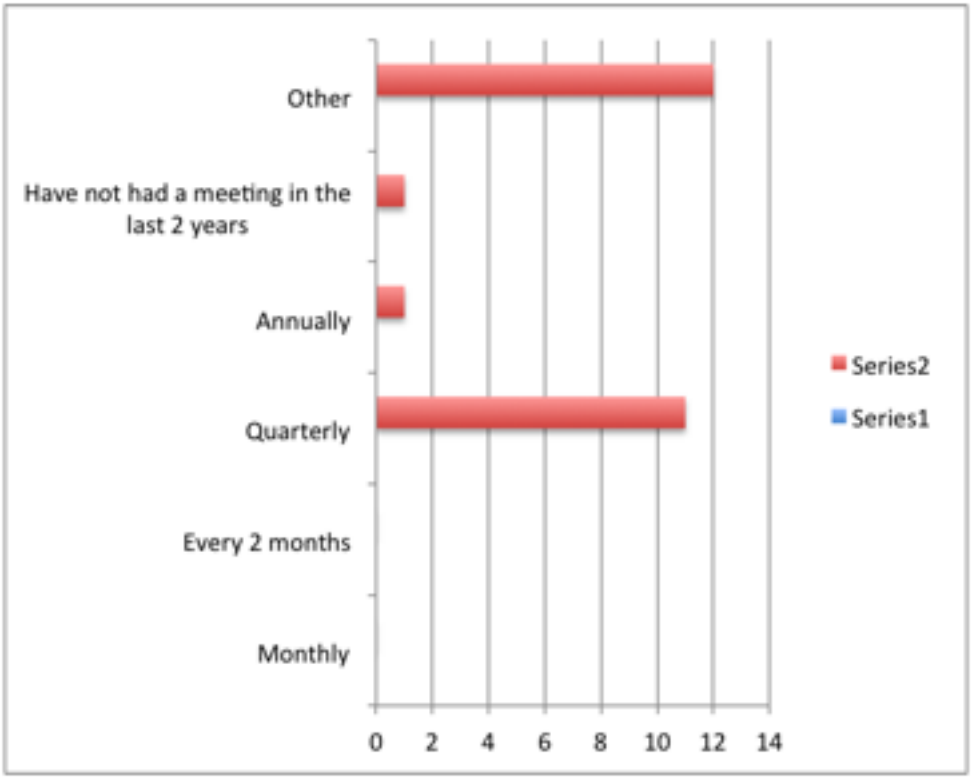
Identify the County served by your LEPC	# of Responses	Response Ratio
Barber	1	4.0%
Barton	2	8.0%
Butler	0	0.0%
Comanche	0	0.0%
Cowley	2	4.0%
Harper	1	4.0%
Harvey	0	0.0%
Edwards	2	8.0%
Kingman	9	36.0%
Kiowa	1	4.0%
Marion	0	0.0%
McPherson	1	4.0%
Pawnee	1	4.0%
Pratt	2	8.0%
Reno	1	4.0%
Rice	1	4.0%
Sedgwick	1	4.0%
Stafford	0	0.0%
Sumner	1	4.0%
No Responses	0	0.0%
Total	25	100%



How often does your LEPC meet?

Comments:

- Twice a year
- Semi-Annual
- We just started up again...no schedule set
- Twice per year



Which LEPC positions are filled?

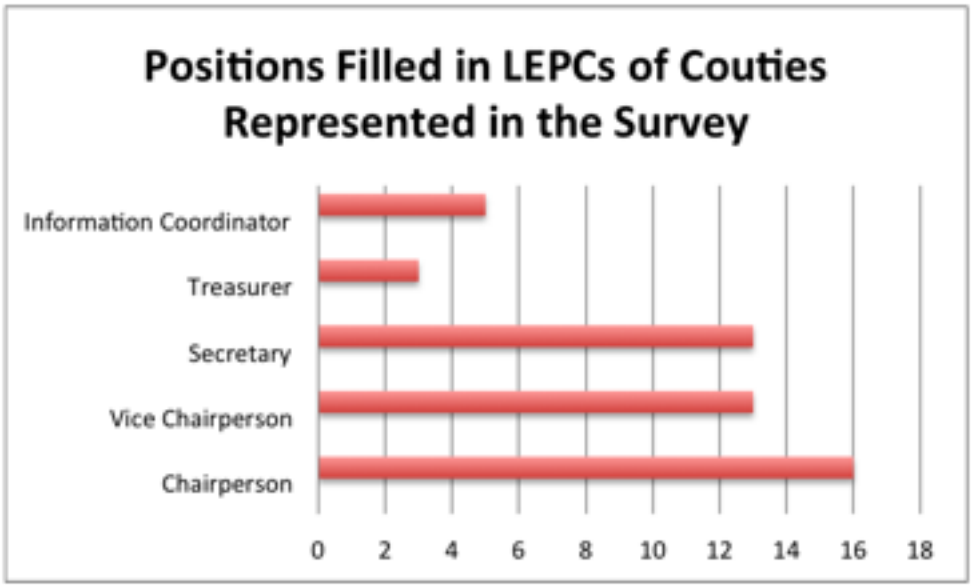
	Number of Response(s)	Response Ratio
Chairperson	16	66.6%
Vice Chairperson	13	54.1%
Secretary	13	54.1%

Treasurer	3	12.5%
Information Coordinator	5	20.8%
Other	9	37.5%
Total	25	100%

In your opinion, what are the obstacles in recruiting LEPC members?

- We have a full list of members but getting them to come to meetings is usually the biggest obstacle. Most that are asked agree to serve but only 8 to 10 actually participate in meetings.
- Trying to fit "another" meeting into already tight schedules. People not understanding the importance of this committee to their community.
- Meeting times and involvement
- Lack of participation from public and businesses that are within our county.
- Public outreach, lack of interest amongst partners
- Limited amount of people in the community
- Getting people interested and wanting to attend. Time is money for local business and they need to be able to take away something profitable.
- Keeping person interested it the program.
- The state outline (federal) is not small LEPC useful.
- There are "factions" in our community--some LEPC members are not allowing others to attend.
- Keeping people interested. Most are so busy with their regular jobs, that they feel this is just "extra" duties.
- Just another meeting to attend.
- Not much value to having the committee.
- We are just restarting our LEPC and are getting good attendance so far
- Limited time for many people to service on another committee in a small community/county.
- Lack of interest from the public.
- Trying to get interest with the same members, year after year is really a challenge to keep them interested and to attend meetings. I try to have educational, interesting material to present for a meeting but sometimes that doesn't even help.
- To get them to come to meeting when they are scheduled. The towns with the biggest population ----- is the one that is never represented.
-

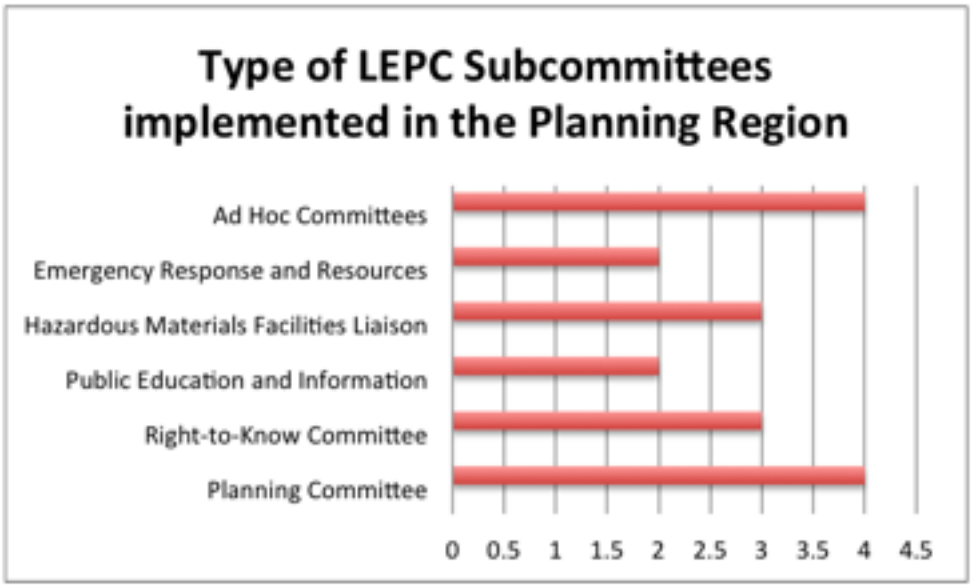
What committees are designated in your LEPC?



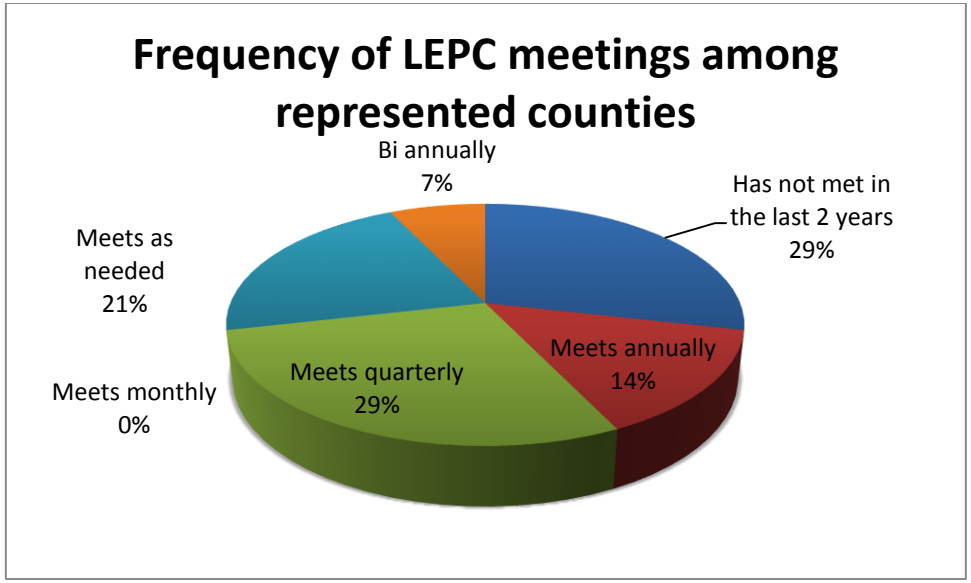
If you select Ad Hoc committees, please tell us its purpose in the comment space below.

Comments:

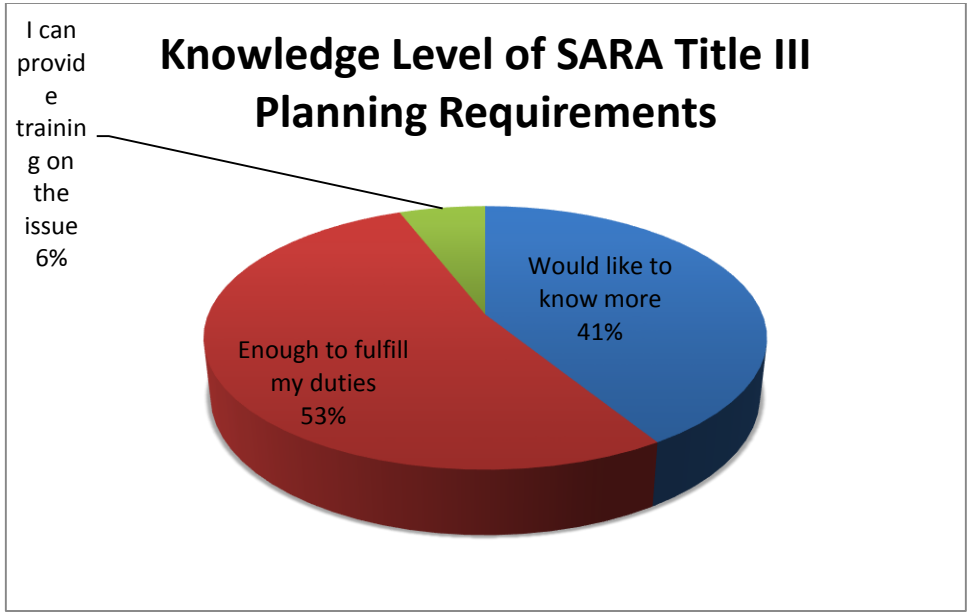
- No committees are designated separate from the LEPC.
- Being a small community, limited committee members, when a committee is necessary it is developed at that point.
- We have the committee's, but they are not very active if at all.
- Don't really use committee's.
- We have a group that maintains the mobile command vehicle.
- Again we are so small of a county, we have the committees but there has been no request from them or for them.
- None at present
- None
- Health & Medical
- The LEPC as a whole fulfills the functions of the Planning, Right-to-Know and Public Education and Information committee.
- First responders.
- I do all the planning and get all the education and information. No one else will take it on.



How active is your Planning Committee?

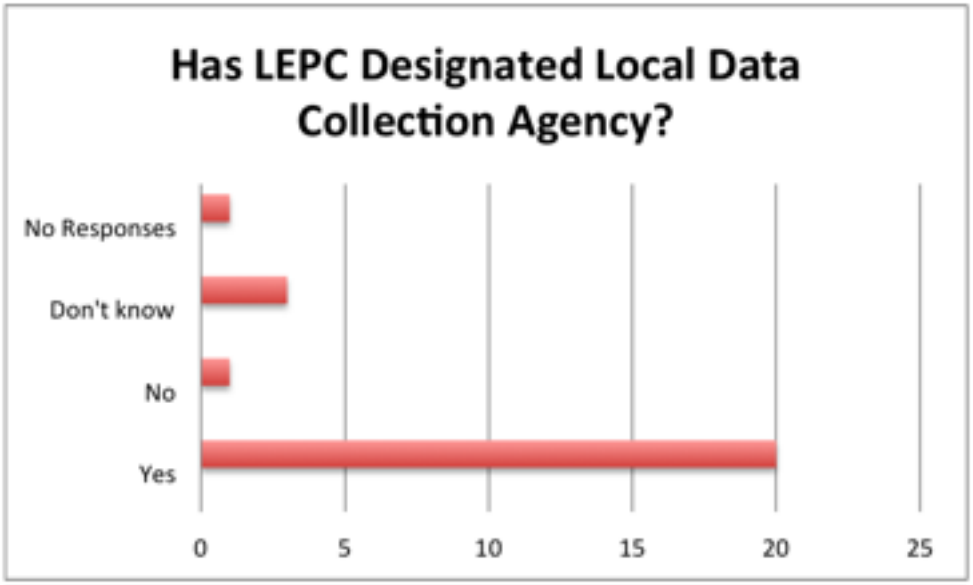


How comfortable are you with the SARA Title III planning requirements as they apply to your jurisdiction?

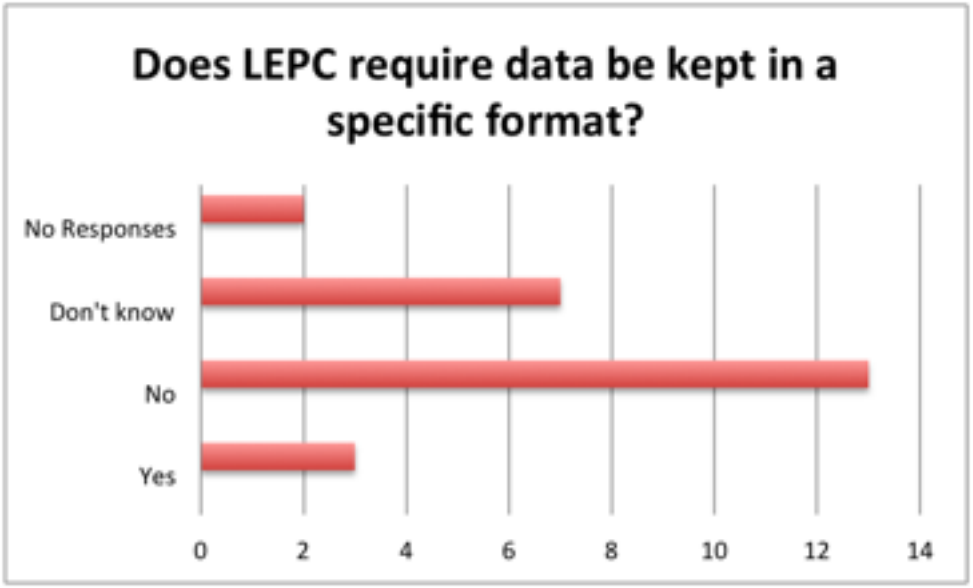


ABOUT EXTREMELY HAZARDOUS SUBSTANCES
Facilities that manufacture, use or store Extremely Hazardous Substances (EHS) at or above the Threshold Planning Quantity (TPQ) must report that information to the LEPCs, within 60 days of the substance arrival.
Is there a LOCAL agency designated by the LEPC to receive that data?

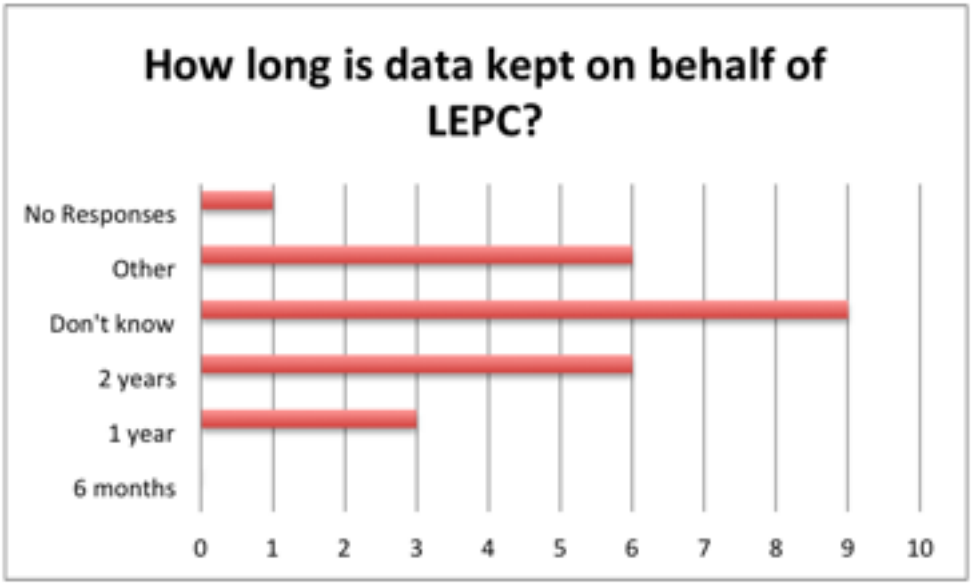
All respondents listed the County Emergency Management Agency as the LEPC designee.



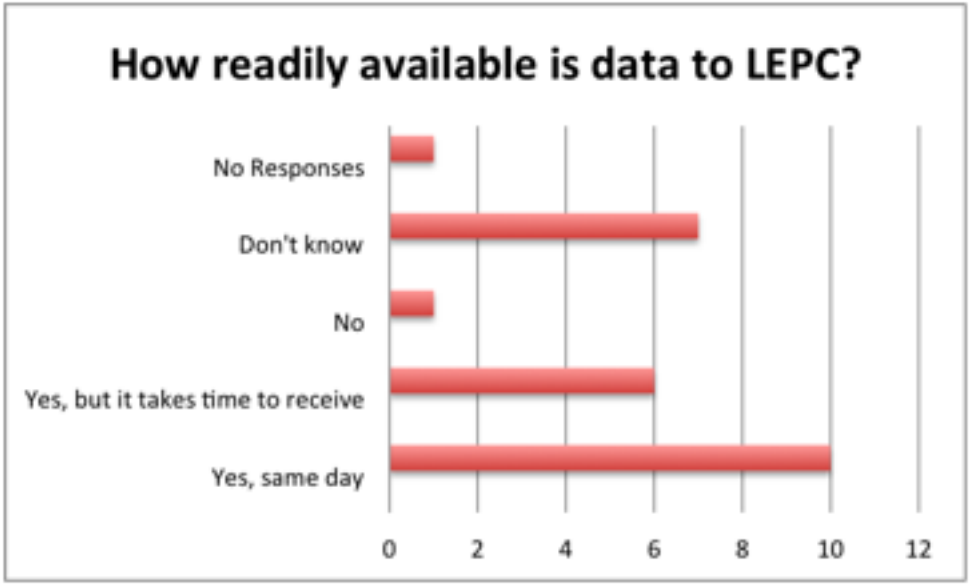
Does the LEPC require this data to be maintained on a specific format?



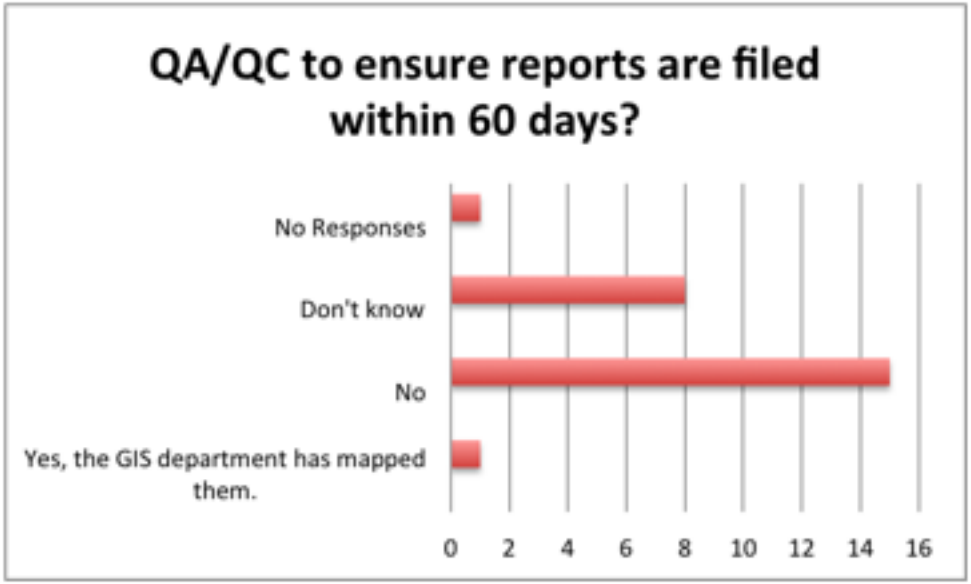
How long is that data kept?



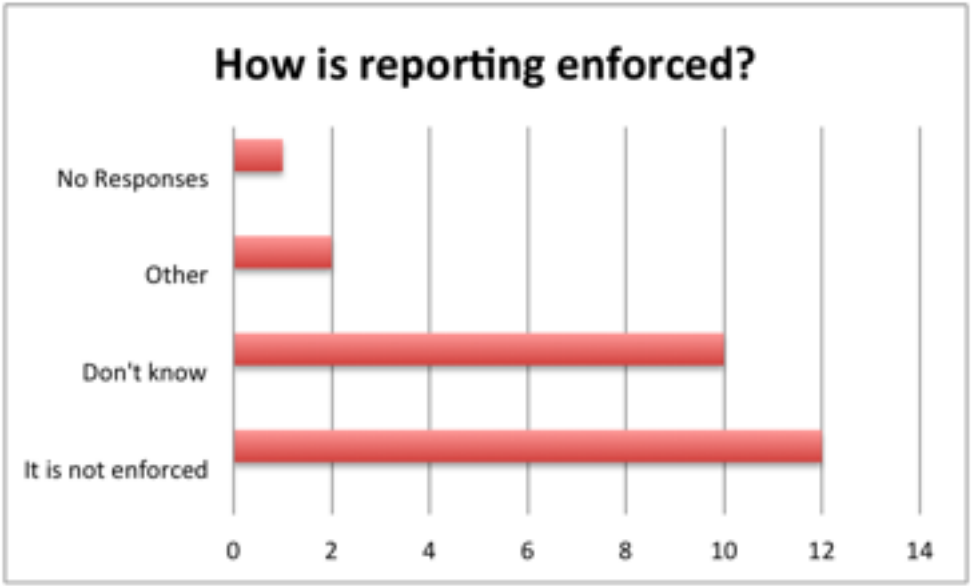
Is that data readily accessible to LEPC membership?



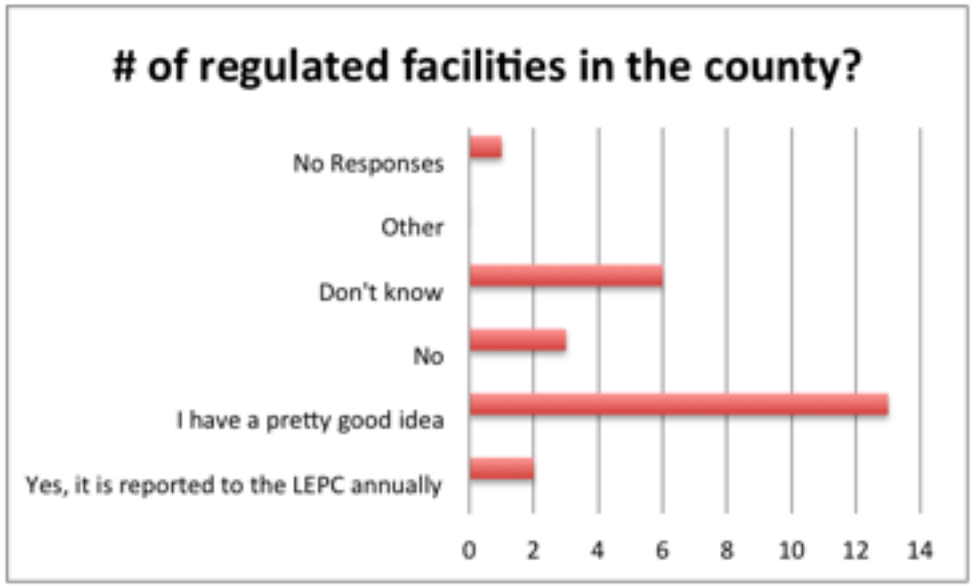
Is a quality control process in place to ensure data is received within 60 days?



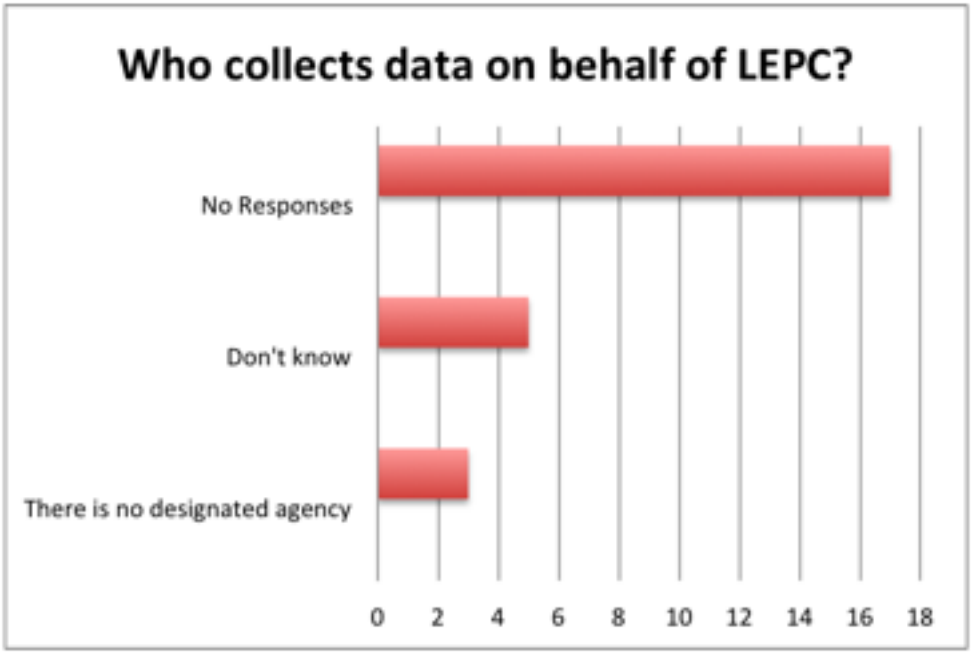
How is this reporting enforced?



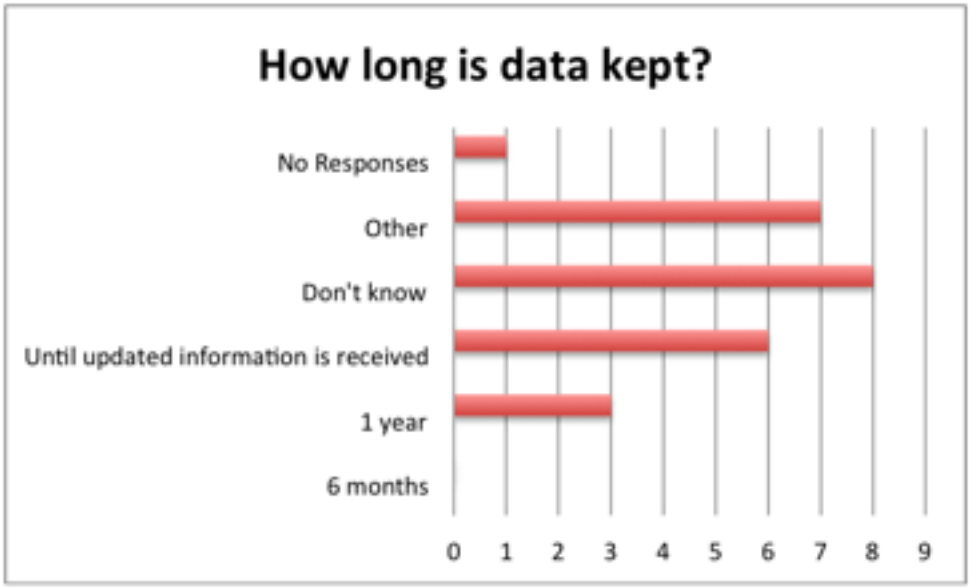
Every facility required to submit a Tier II Report must designate a liaison to the LEPC. Do you know the number of regulated facilities in your county?



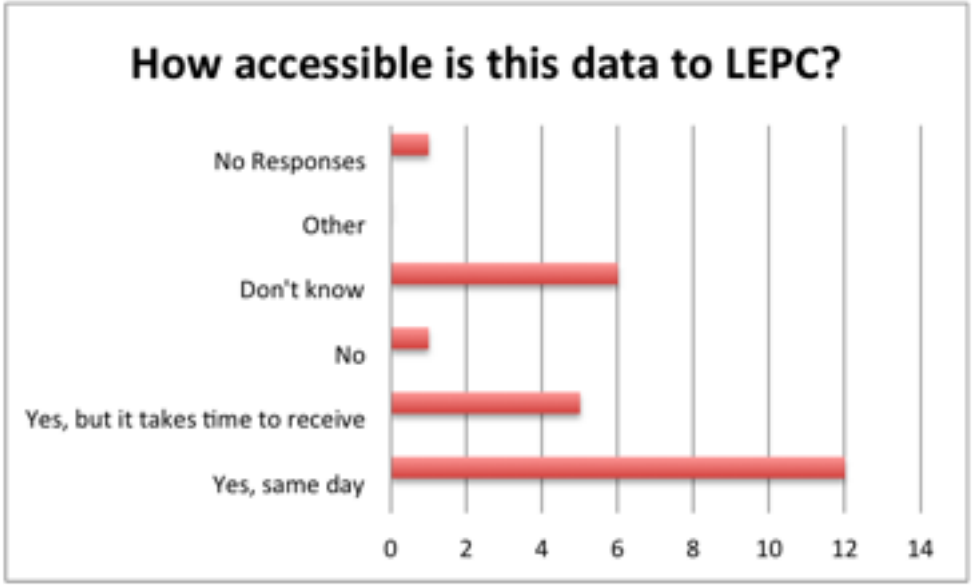
Which agency collects that data on behalf of the LEPC?



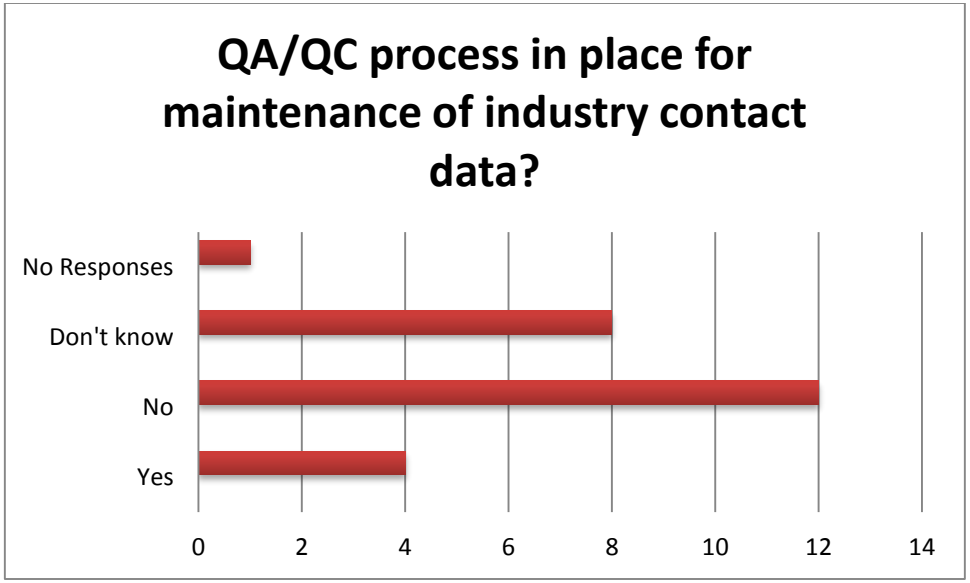
How long is that data kept?



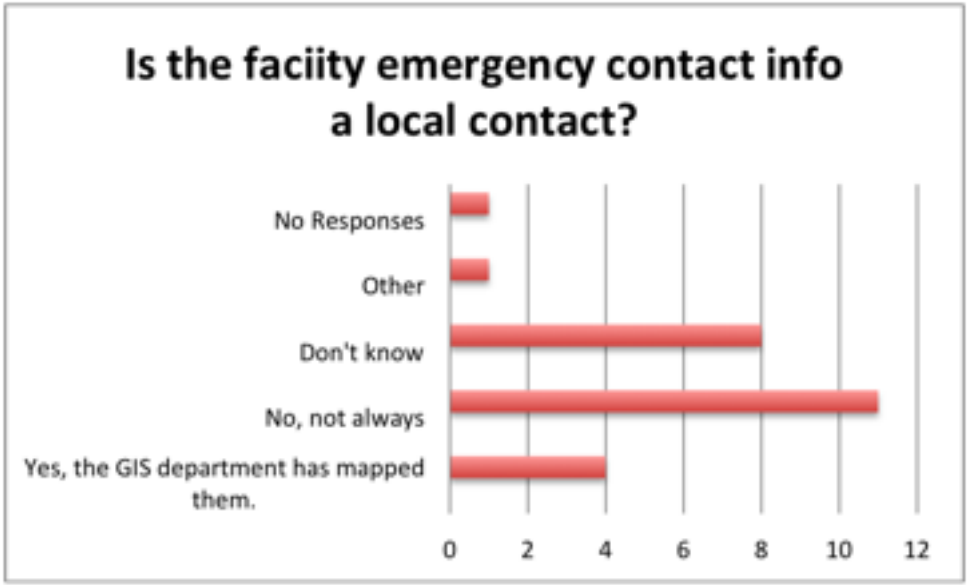
Is that data readily accessible to the LEPC leadership?



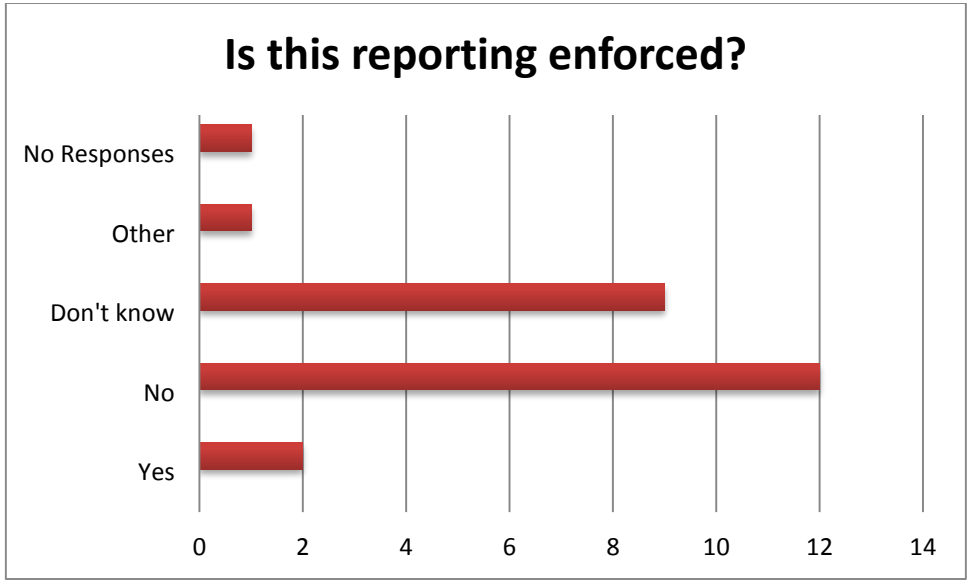
Is a quality control process in place to ensure the name and contact information is up to date?



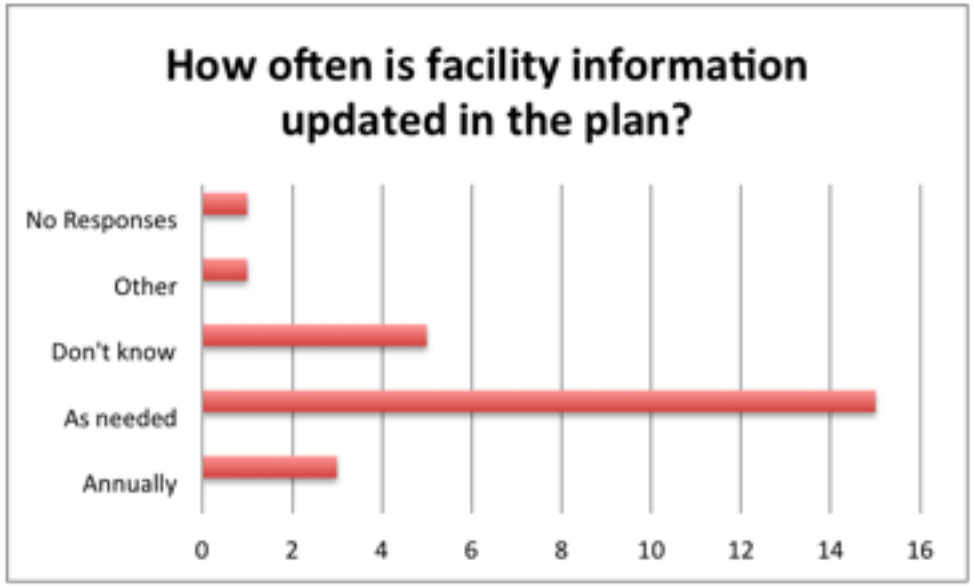
Is the facility's contact information a local contact?



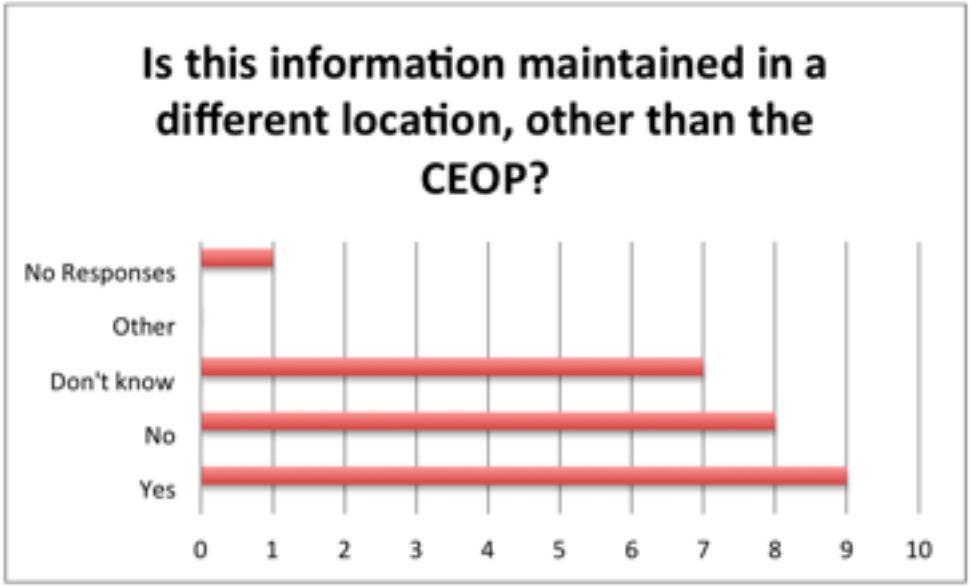
Is this reporting enforced?



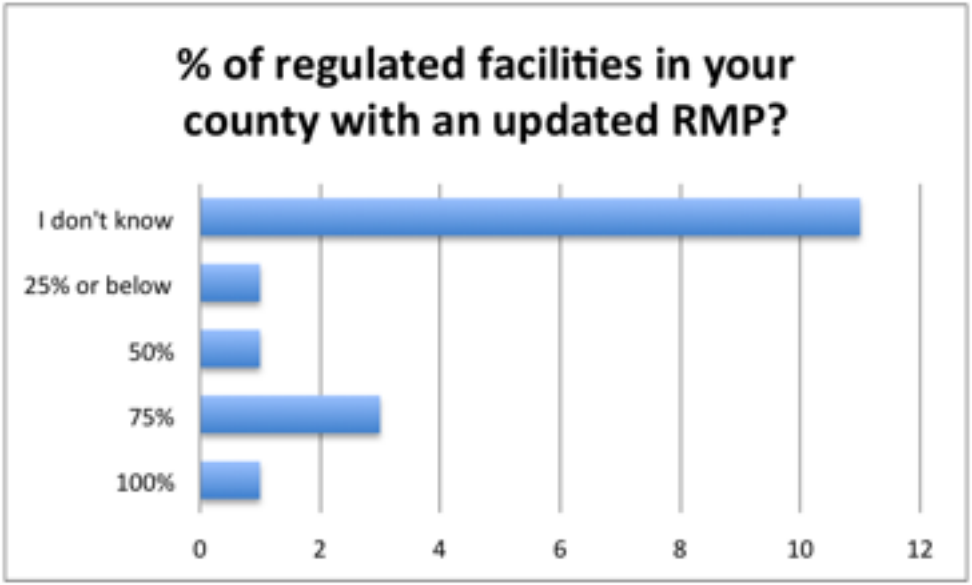
The LEPC must incorporate facility information into the local emergency operations plan for the county. (This is in reference to the ESF #10 - Hazardous Materials Annex)
How often is facility information updated in the Plan?



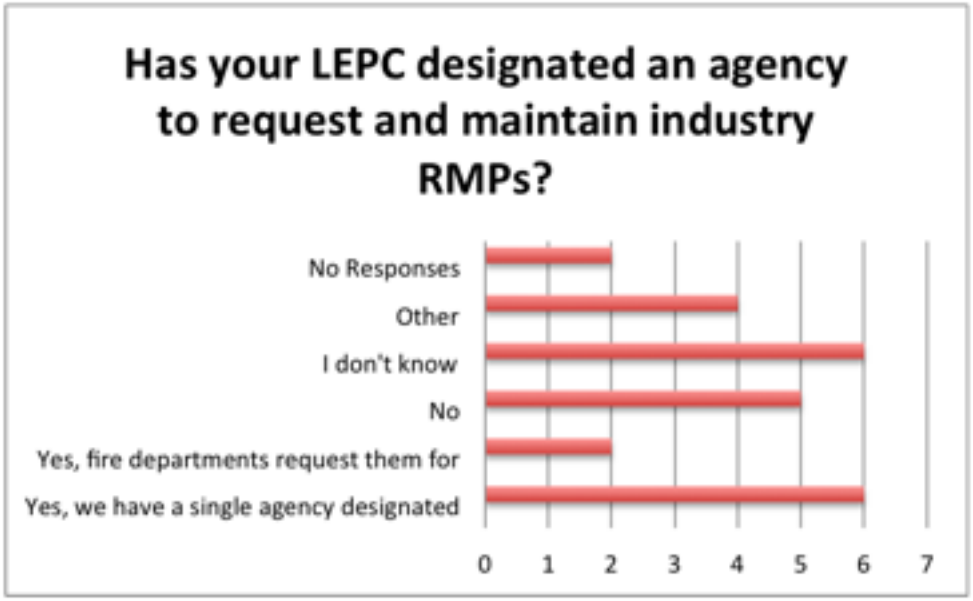
Is the information maintained in a different location, other than the Emergency Plan?



Industry Risk Management Plans. The Risk Management Plan (RMP) Rule implements Section 112(r) of the 1990 Clean Air Act amendments. This rule requires facilities that use extremely hazardous substances to develop a Risk Management Plan. These plans must be revised and resubmitted to EPA every five years. In your opinion, what percentage of required facilities in your county has an updated RMP?

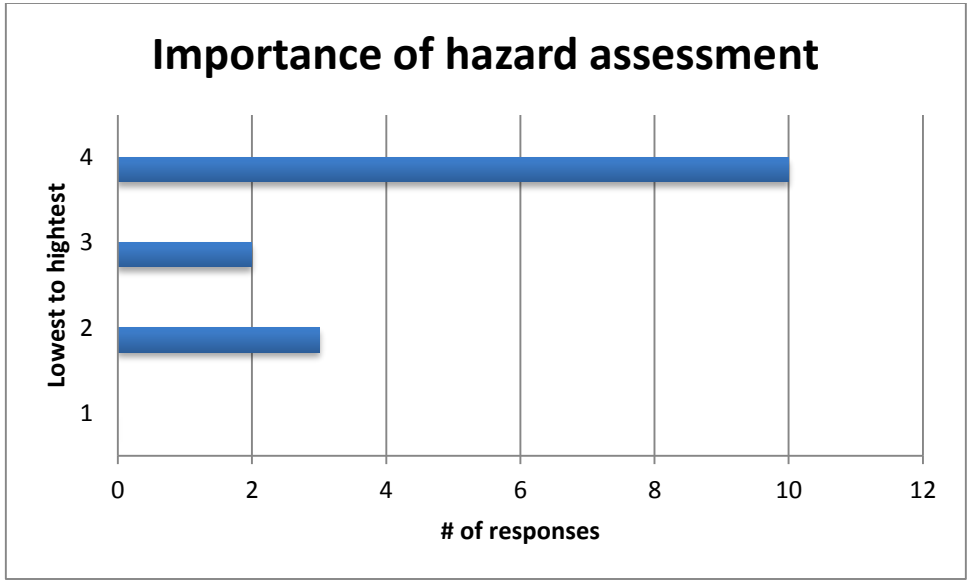


Does your LEPC have an agency designated to request and maintain copies of RMPs in your county?

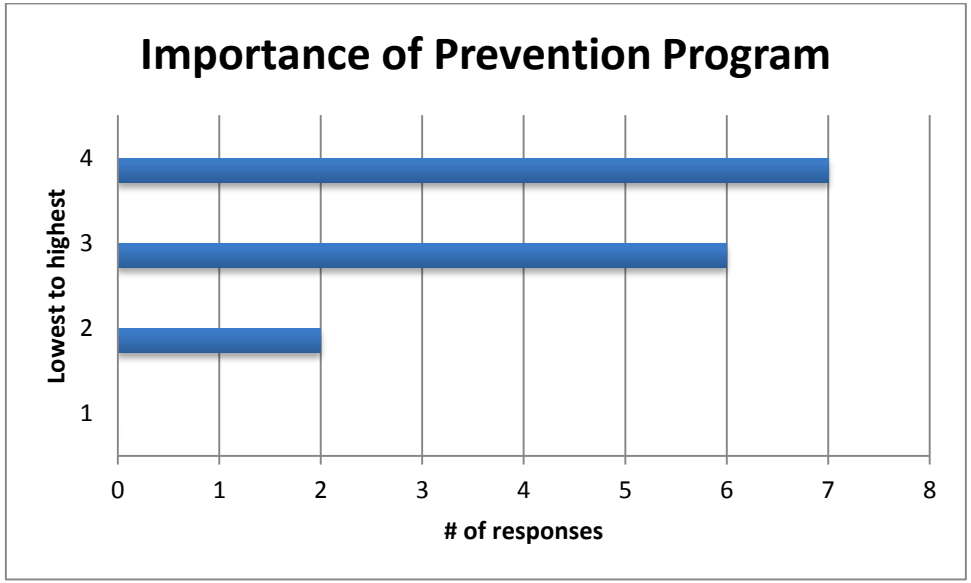


RMPs are required to include the specific data. Please rate the importance of that information for your LEPC.

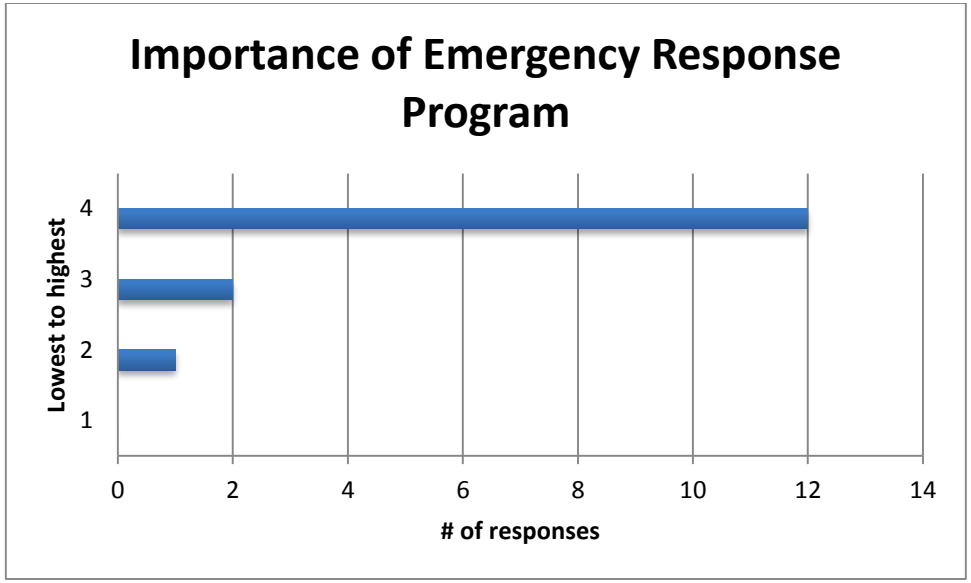
Hazard assessment: The potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases



Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures



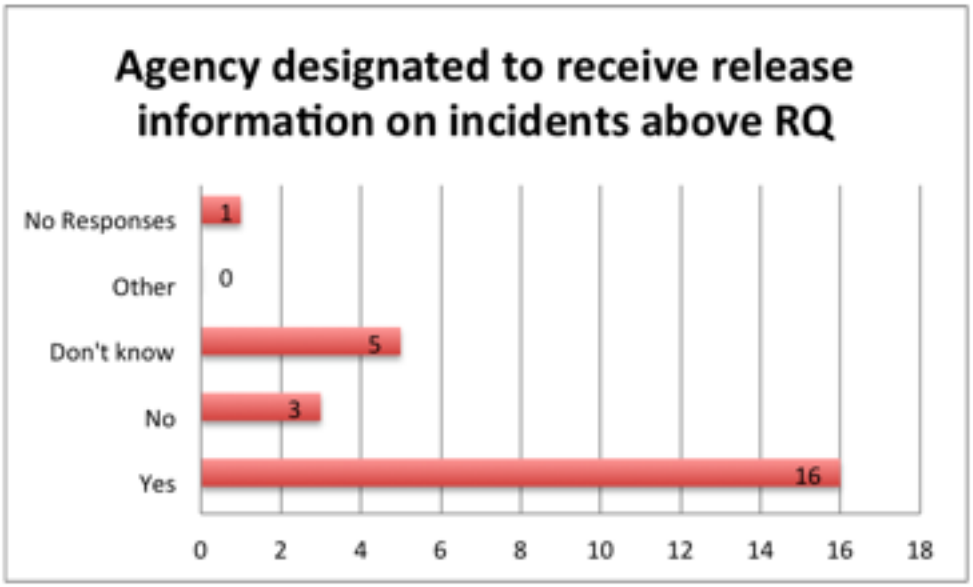
Emergency response program: Emergency health care, employee training measures and procedures for informing the public and response agencies should an accident occur



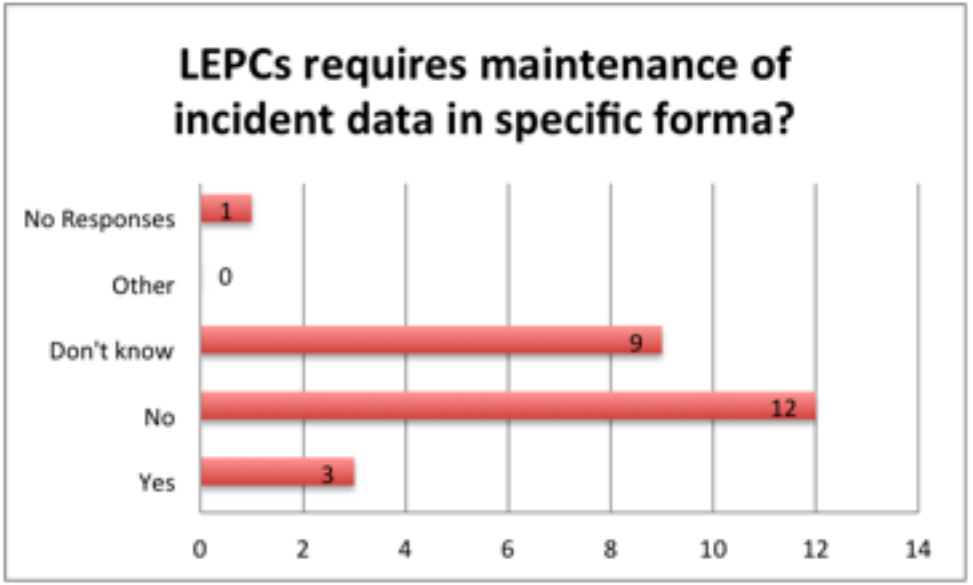
Comment(s)

- Mostly NFPA 704 Placard info is all we get.
- We have had some of this training at our LEPC meetings.

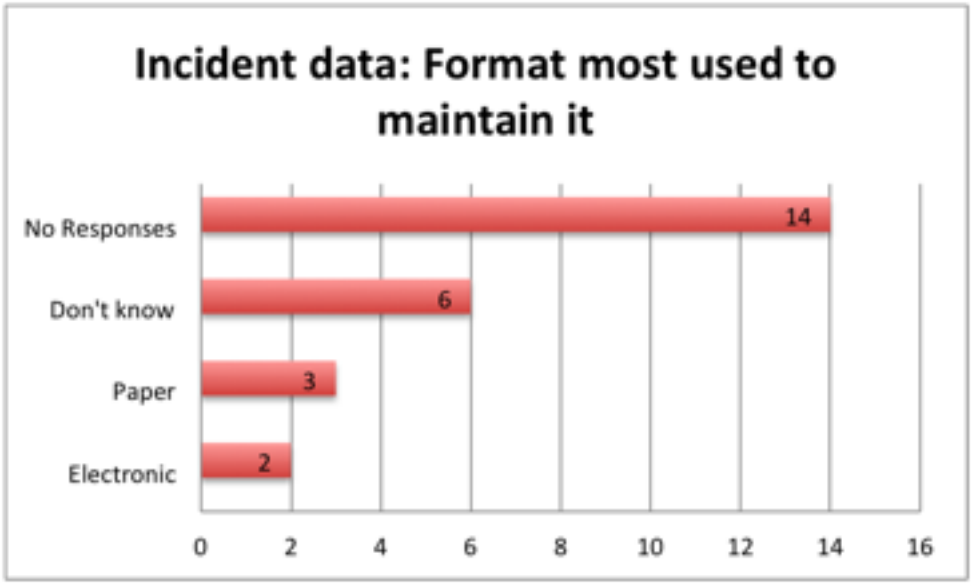
Federal law assigns Reportable Quantities (RQ) to hazardous materials. Any accidental release of these substances at or above the RQ triggers reporting requirements to the LEPC.
Is there an agency is designated to receive that data on behalf of your LEPC?



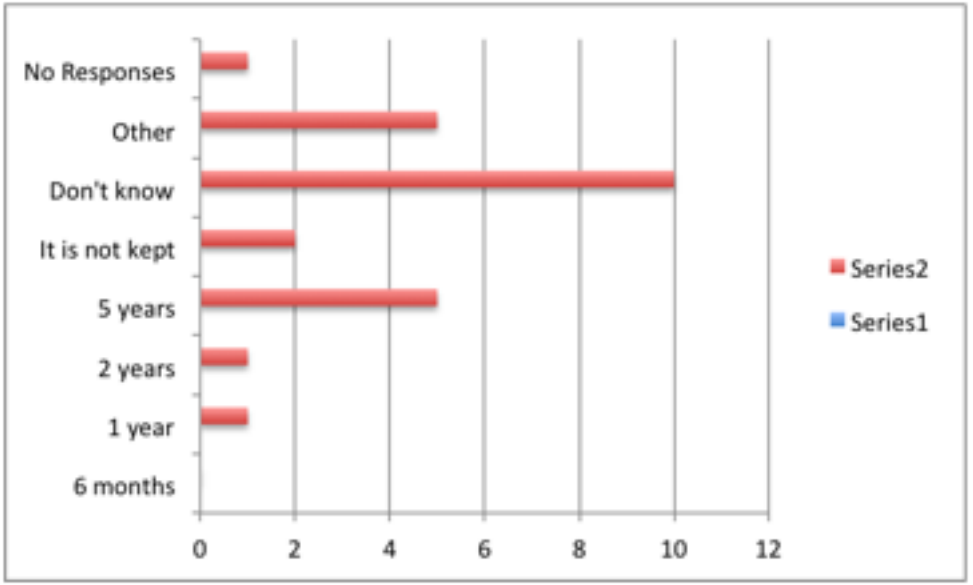
Does the LEPC require the data to be maintained on a specific format?



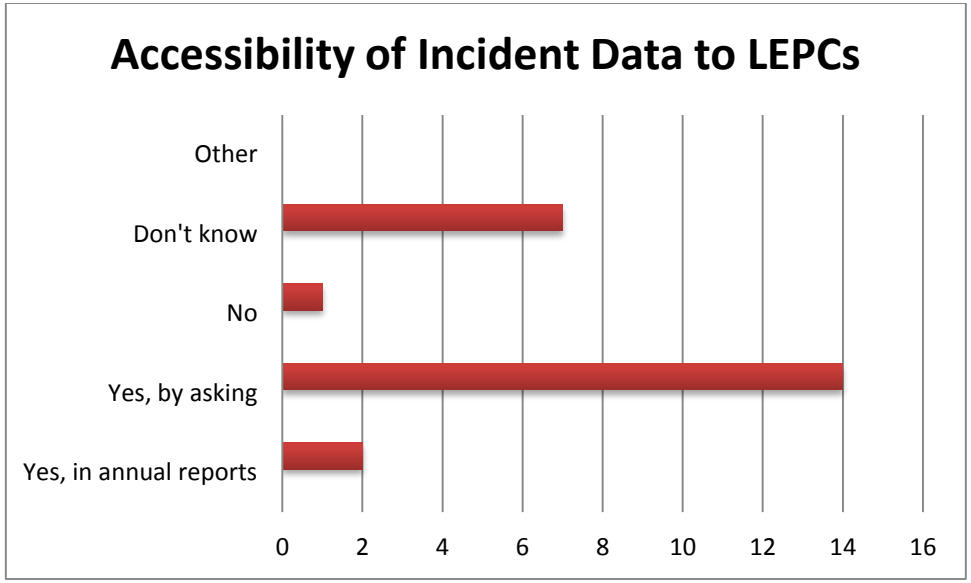
Formats most used:



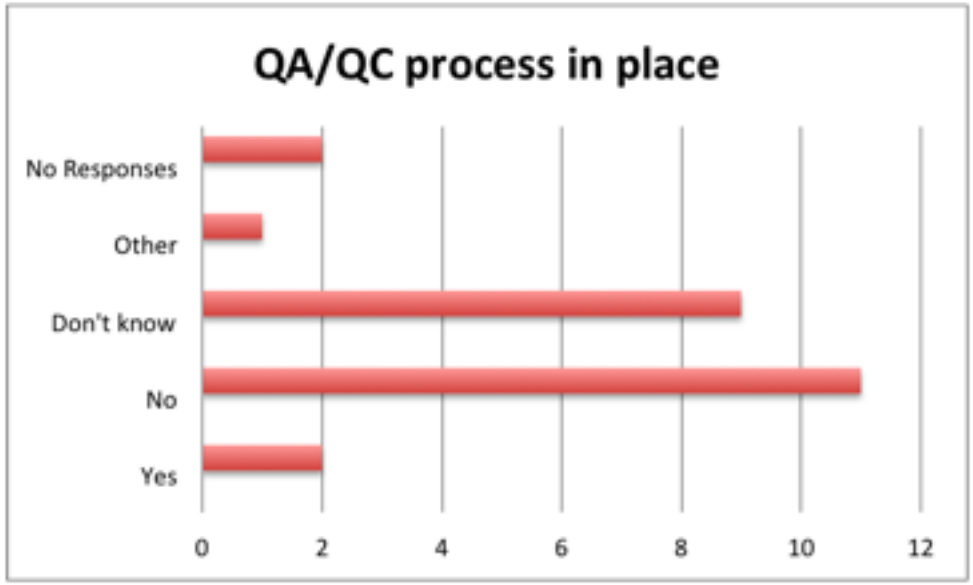
How long is that data kept?



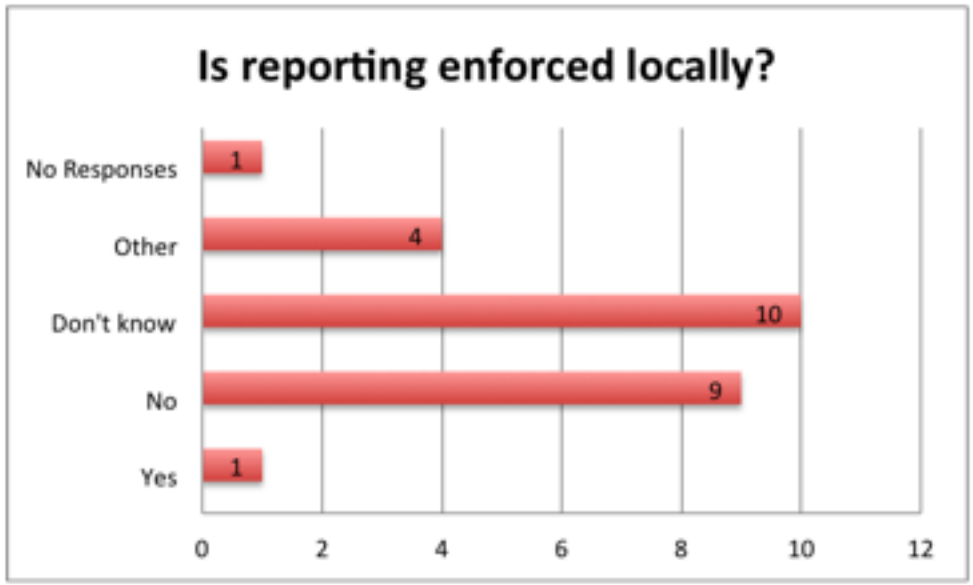
Is that data readily accessible to the LEPC leadership?



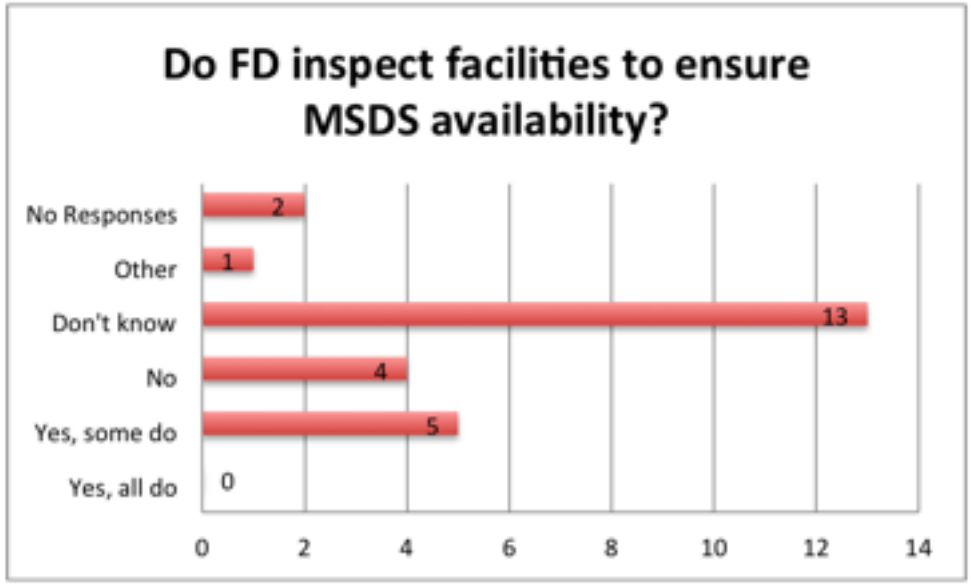
Is there a quality control process in place to ensure reports are received in a timely fashion?



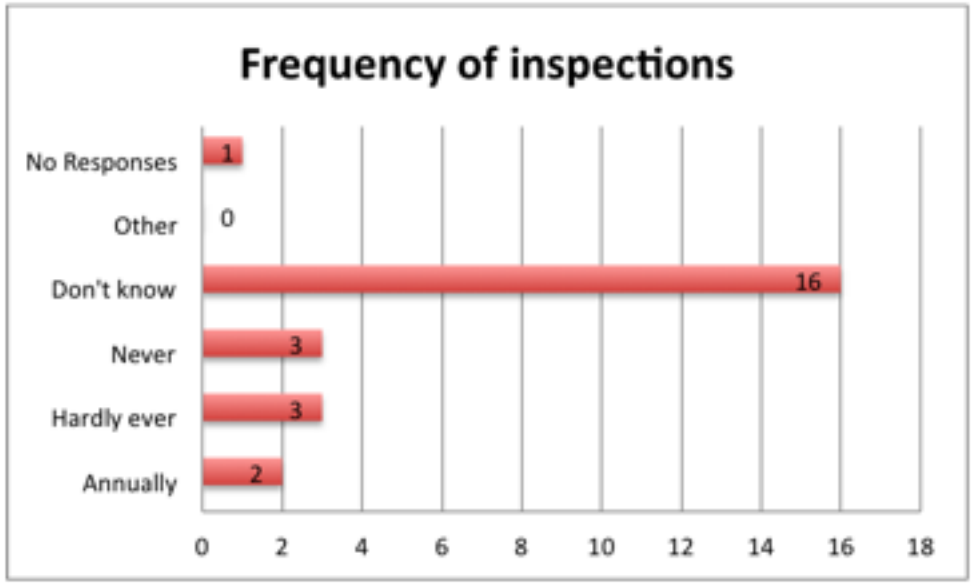
How is this reporting enforced locally?



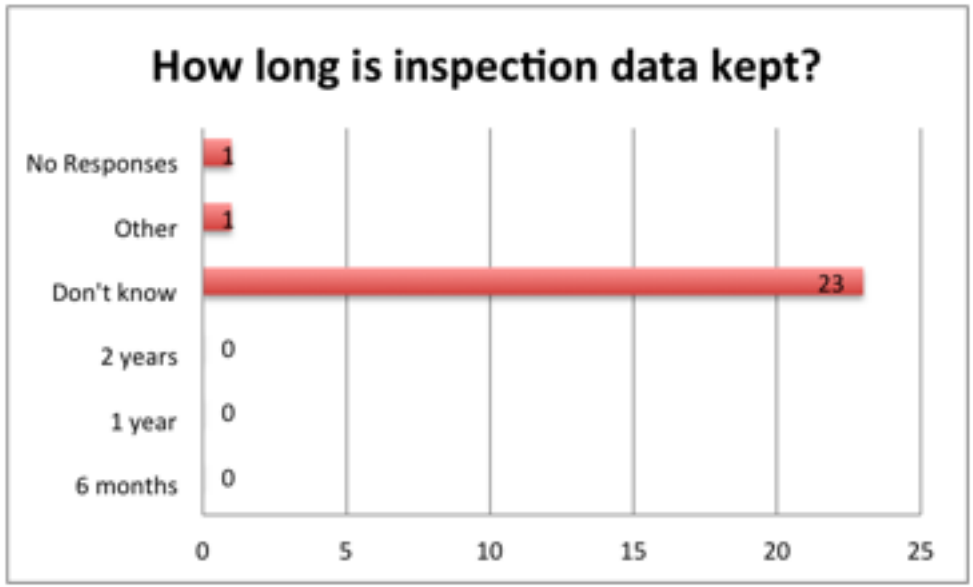
Material Safety Data Sheet (MSDS) for certain substances must be posted or be available for inspection, under Section 311 and 312 of EPCRA.
Do the area fire services inspect these facilities to ensure compliance?



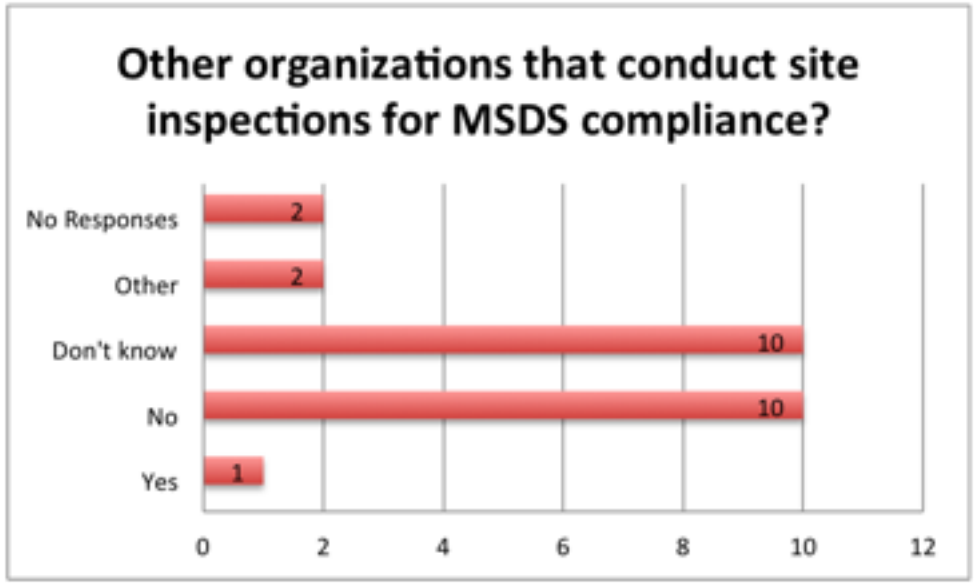
How often are these inspections conducted?



How long is inspection data kept?

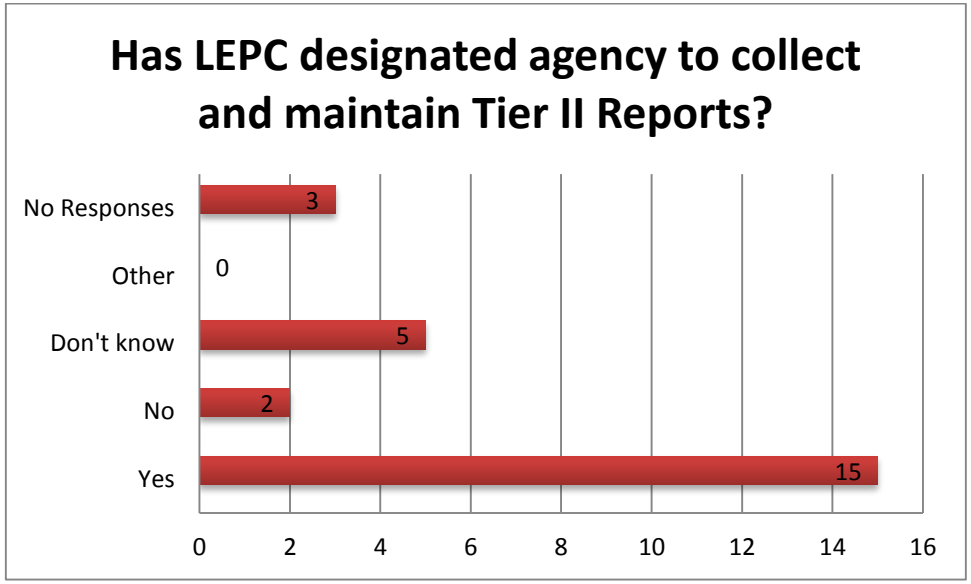


Does any other agency conduct site inspections to ensure compliance, on behalf of the LEPC?

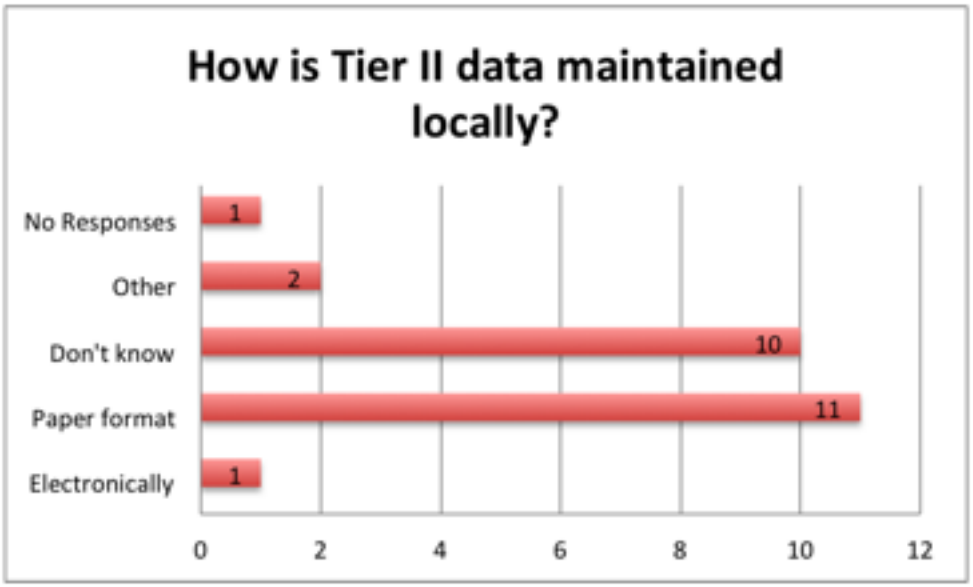


Section 302 substances must also be listed on the Tier II report. Copies of these reports must be sent to the LEPC, and the local fire departments because these reports provide the information required for emergency planning and community Right-to-Know Act.
Is there an agency designated as the information holder for that information on behalf of the LEPC?

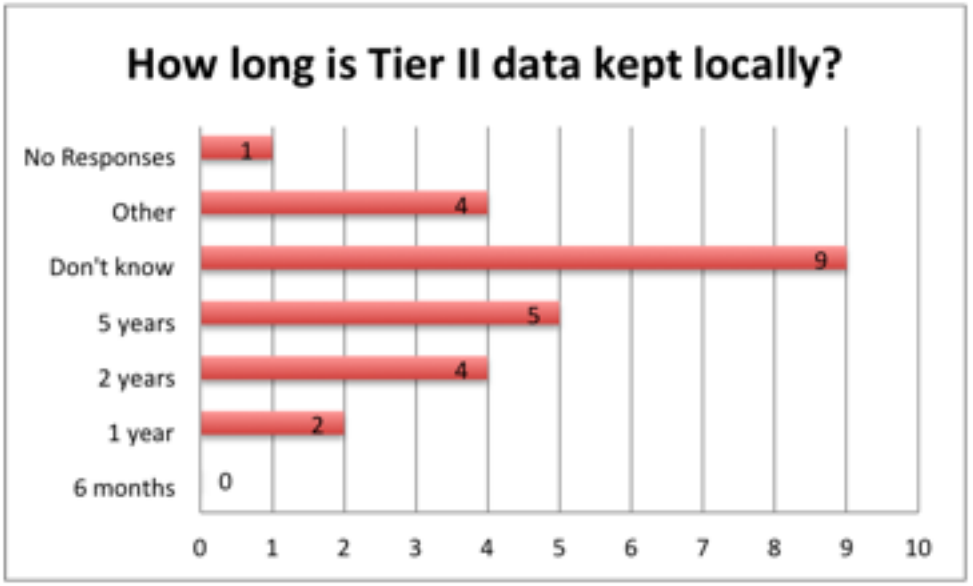
All respondents that checked YES indicated the County EMA is the designated agency for this purpose.



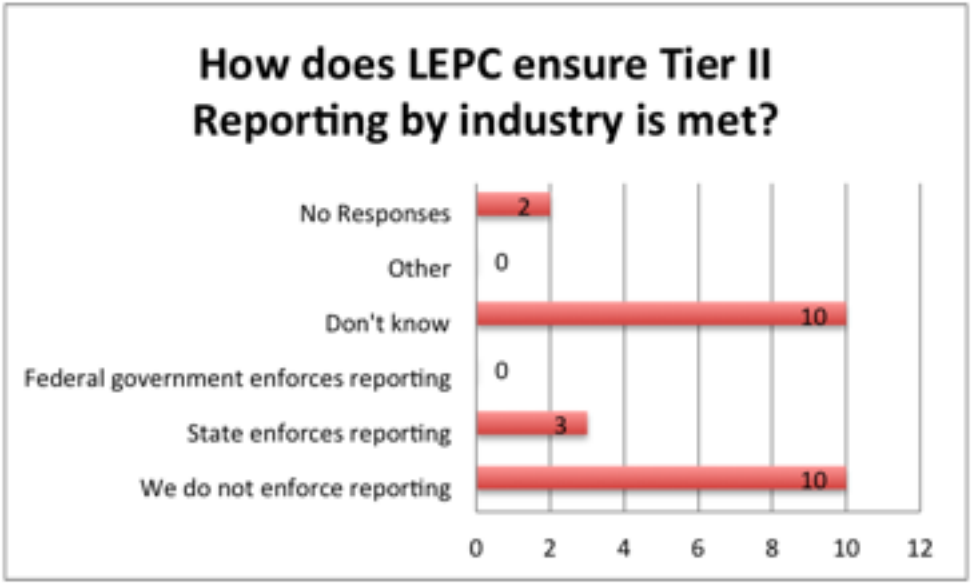
How does the designated agency maintain that data on behalf of the LEPC?



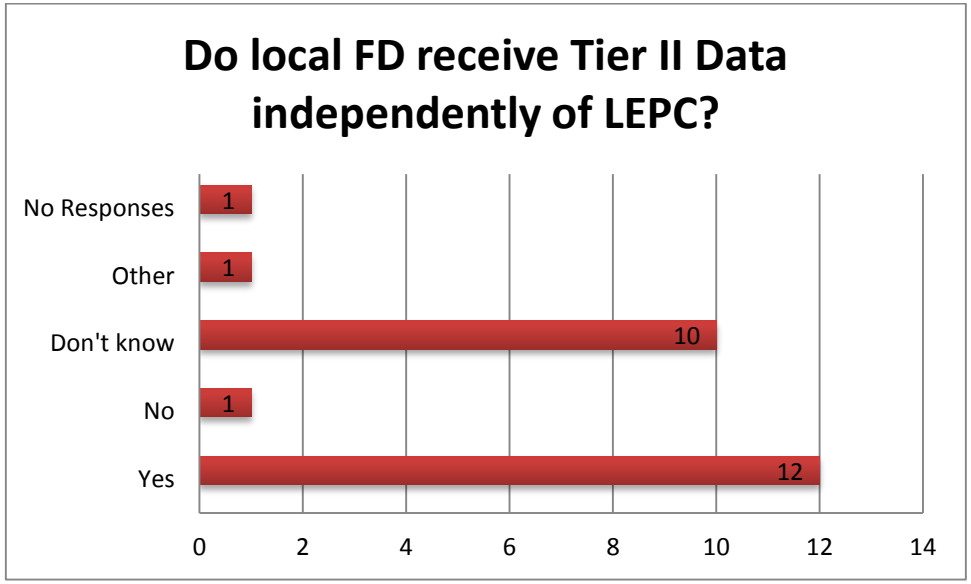
How long is that data kept by the designated agency?



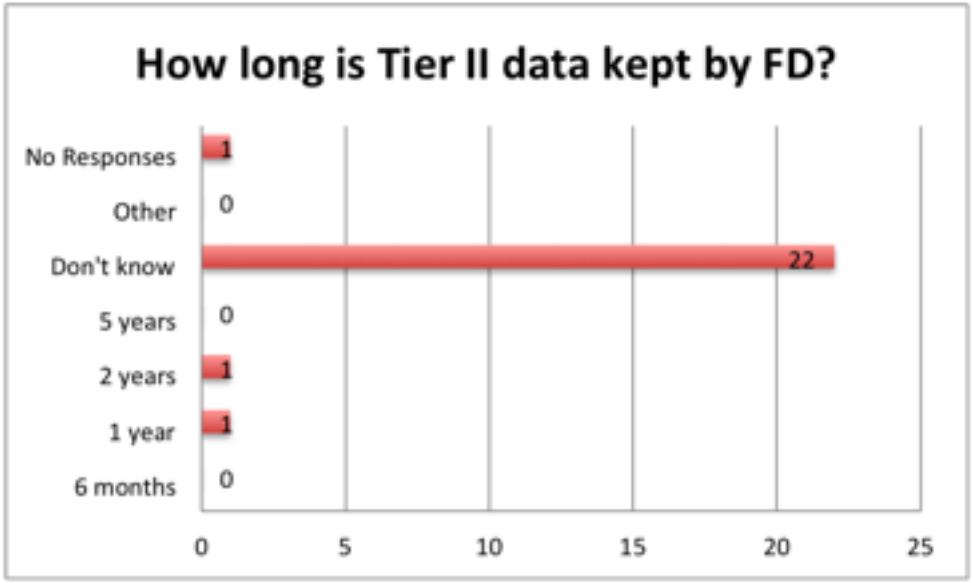
There is a sizable penalty for industry for not reporting this information. How does the LEPC ensure reporting requirements are met?



Do the local fire departments receive these reports independently of the LEPC?

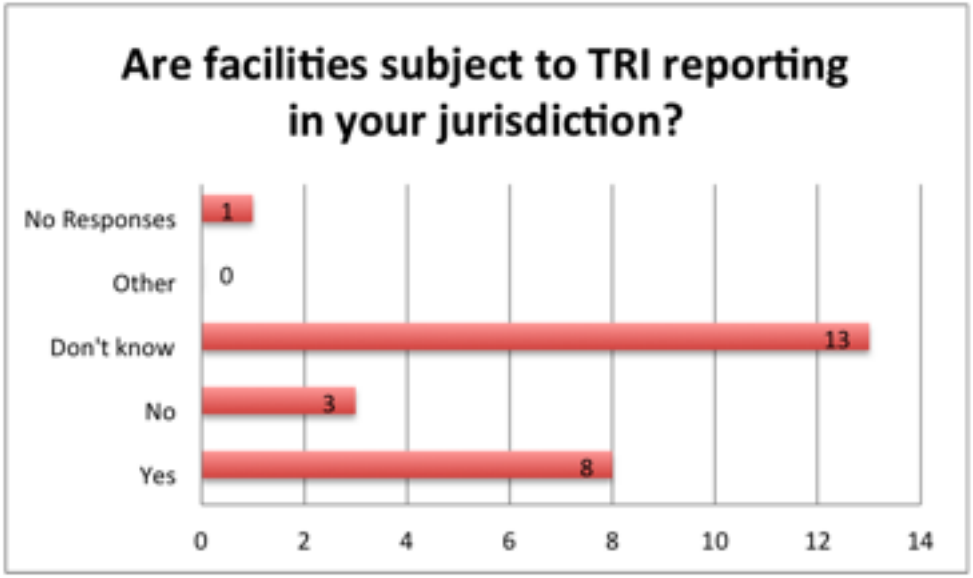


How long is that data kept by fire departments?

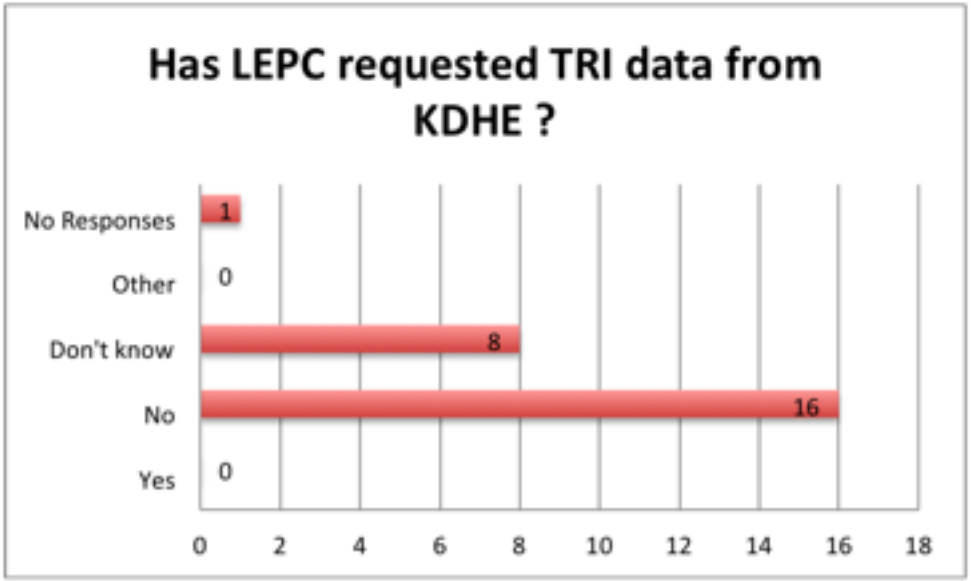


Routine releases of toxic or hazardous substances into the environment happen as part of a manufacturing or operating process. Facilities track the quantity and type of release and they know and the reporting threshold is based on the total quantity released during the year. Toxic Release Inventory (TRI) reports are made to the state only.

Are there any facilities subject to Section 313 reporting in your jurisdiction?

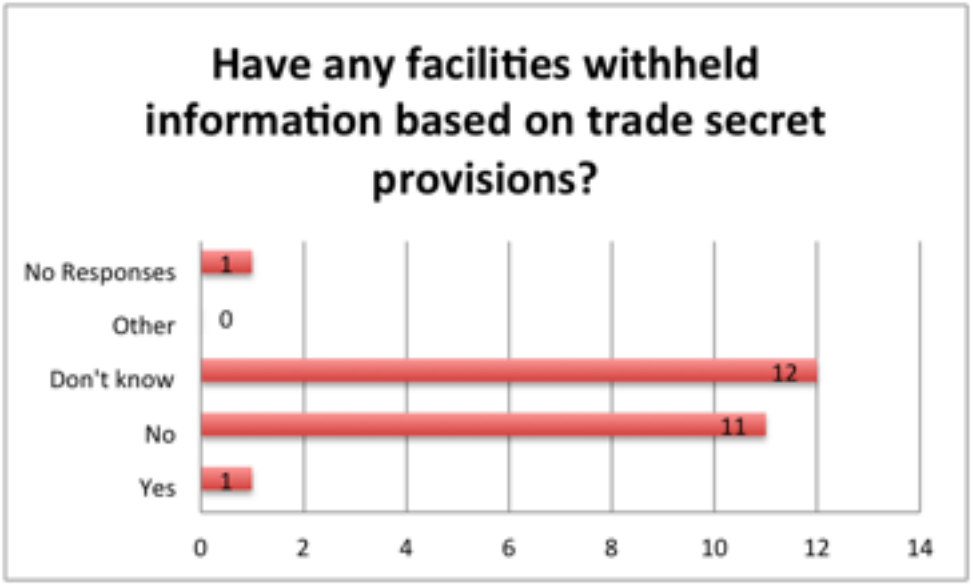


In the past, has your LEPC requested the TRI report from the Kansas Department of Health and Environment, Bureau of Air and Radiation?

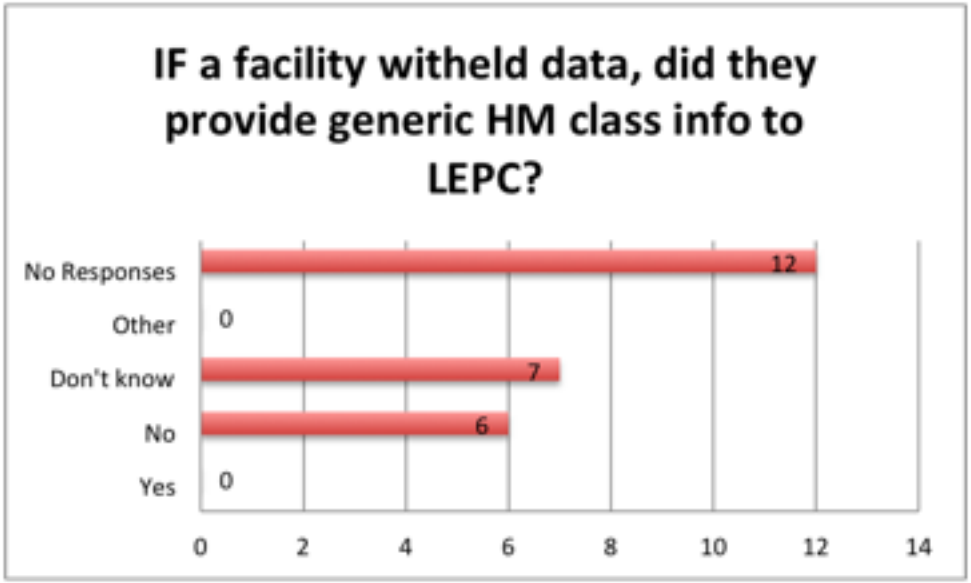


Federal law allows a facility to withhold the identity of a chemical if revealing it could compromise company operations. Only chemical identity may be claimed as a trade secret, a generic class for the chemical must be provided. EPCRA Section 323 allows the identity of the chemical to be disclosed to health professionals who need to know it for diagnostic and treatment purposes, or local health officials who need the information for prevention and treatment activities.

Has any facility in your jurisdiction invoked trade secret provisions to withhold information from the LEPC?



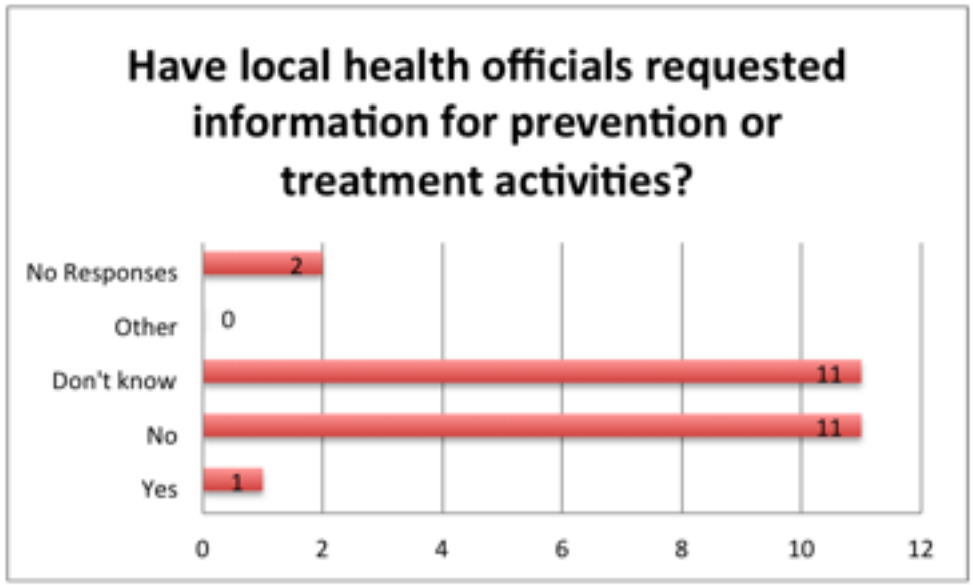
If you answered yes to the question above, has a generic class for the chemicals in question been provided to the LEPC?



Is the LEPC aware of any local health professionals requesting such information for the purpose of diagnostic treatment?

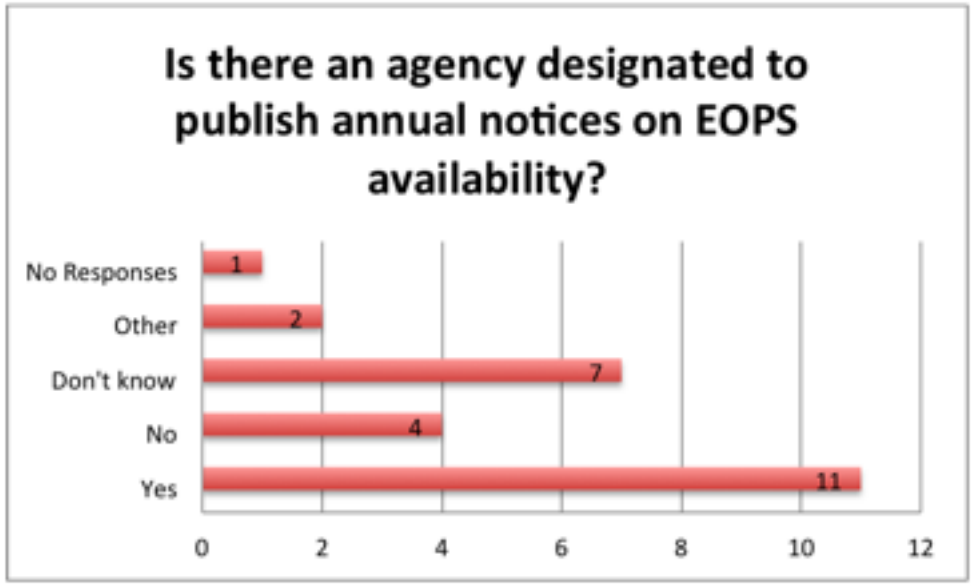


To your knowledge, have local public health officials requested that information for prevention or treatment activities?

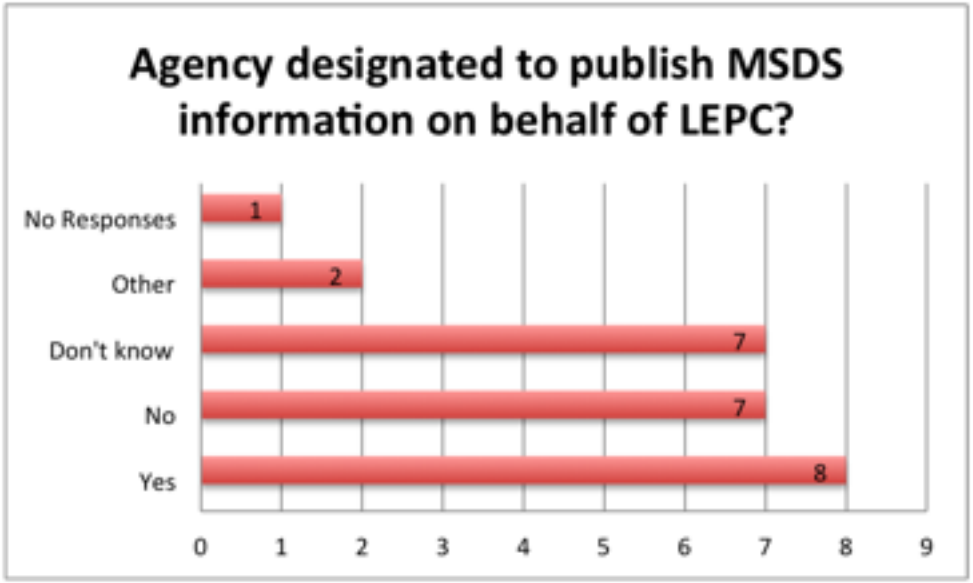


LEPCs are required to annually publish a notice, through print or electronic media, that the Emergency Operations Plans, MSDSs, and Tier II forms have been submitted and give the location where such documents may be reviewed during normal business hours.

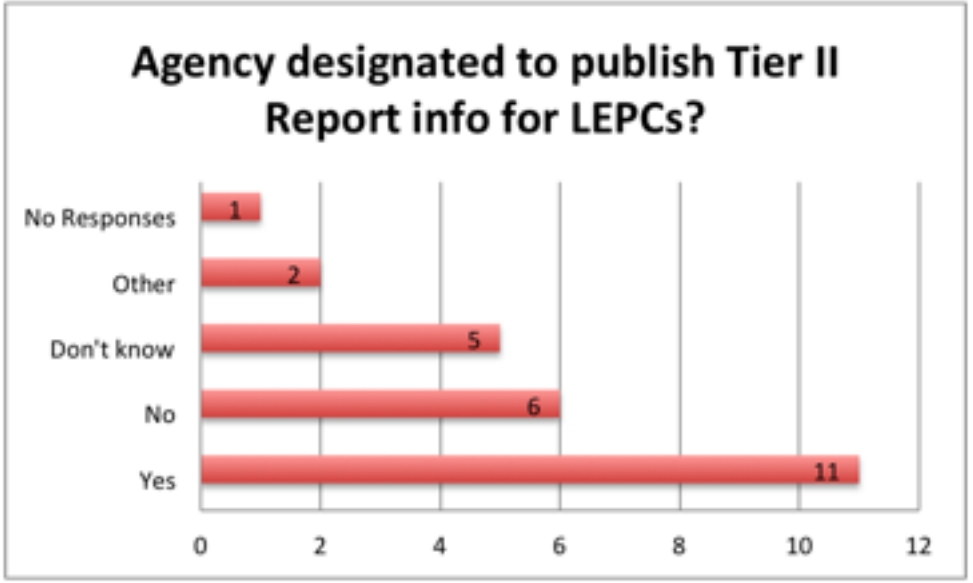
For the Emergency Operations Plan, does the LEPC take these actions or designate an agency to do so on its behalf?



For the MSDS information, does the LEPC take these actions or designate an agency to do so on its behalf?



For Tier II Reports, does the LEPC take these actions or designates an agency to do so on its behalf?



Has any facility that submitted Tier II reports asked the LEPC to keep CONFIDENTIAL the location of the hazardous materials in your jurisdiction?



Public Works/Road and Bridge Survey Results

Survey Name: Public Works/Road and Bridge Survey
Aug 20, 2014 11:36:01 AM

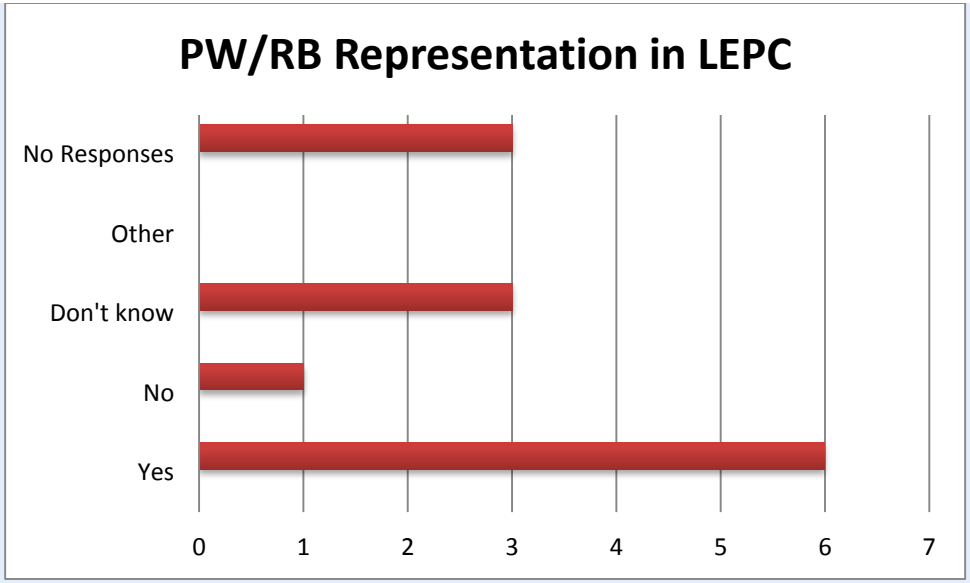
1. Select the County where you are located

	Number of Response(s)	Response Ratio
Barber	1	7.6%
Barton	2	15.3%
Butler	2	15.3%
Cowley	1	7.6%
Comanche	0	0.0%
Edwards	0	0.0%
Harper	0	0.0%
Harvey	0	0.0%
Kingman	1	7.6%
Kiowa	1	7.6%
Marion	0	0.0%
McPherson	0	0.0%
Pawnee	1	7.6%
Pratt	1	7.6%
Reno	0	0.0%
Rice	0	0.0%
Sedgwick	0	0.0%
Stafford	1	7.6%
Sumner	0	0.0%
No Responses	2	15.3%
Total	13	100%

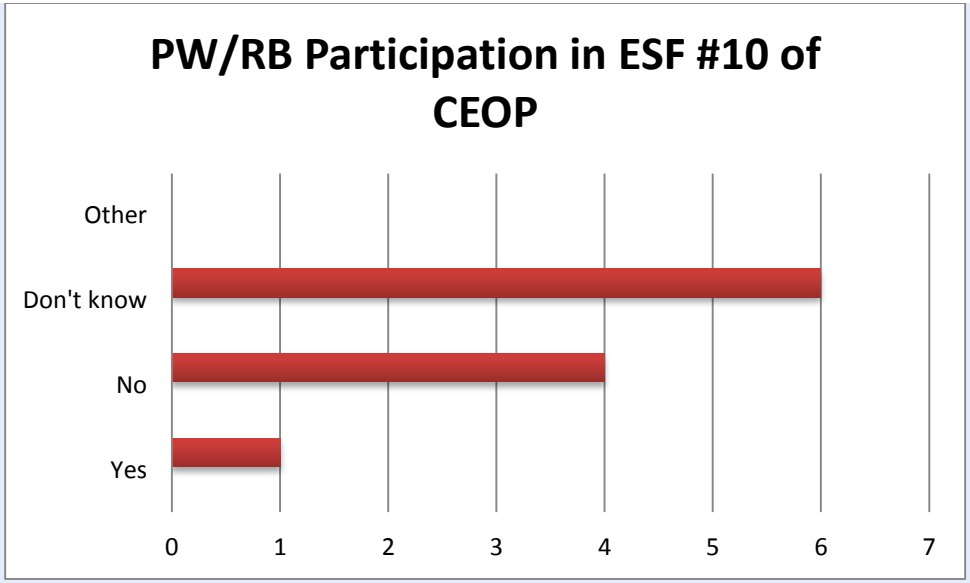
4. Responsibilities of your department - select as many as applicable. Add responsibilities not listed in comments section below

	Number of Response(s)	Response Ratio
Road/highway infrastructure planning and development	7	63.6%
Road/highway infrastructure maintenance and repair	11	100.0%
Road/highway infrastructure damage assessment	10	90.9%
Solid waste site management	2	18.1%
Solid waste collection, transportation and disposal	3	27.2%
Solid waste site inspection and licensing	1	9.0%
Animal control	0	0.0%
Waste water - plant management, operations, damage assessment	1	9.0%
Potable water - plant management, operations, damage assessment	1	9.0%
Public buildings management, including severe weather saferooms, evacuation planning, damage assessment, reconstruction contracting	2	18.1%
Parks management - no swimming pool management	1	9.0%
Parks management - public swimming pool management	0	0.0%
Telecommunications system management	0	0.0%
Electric generating station	0	0.0%
Electric distribution systems	0	0.0%
Digital cable	0	0.0%
Engineering	3	27.2%
Equipment services - Own department (motor vehicle maintenance, machinery and inventory management)	6	54.5%
Equipment services - For other agencies (motor vehicle maintenance, machinery, inventory management)	1	9.0%
Environmental services quality	0	0.0%
Other	0	0.0%
Total	11	100%
1 Comment(s)		

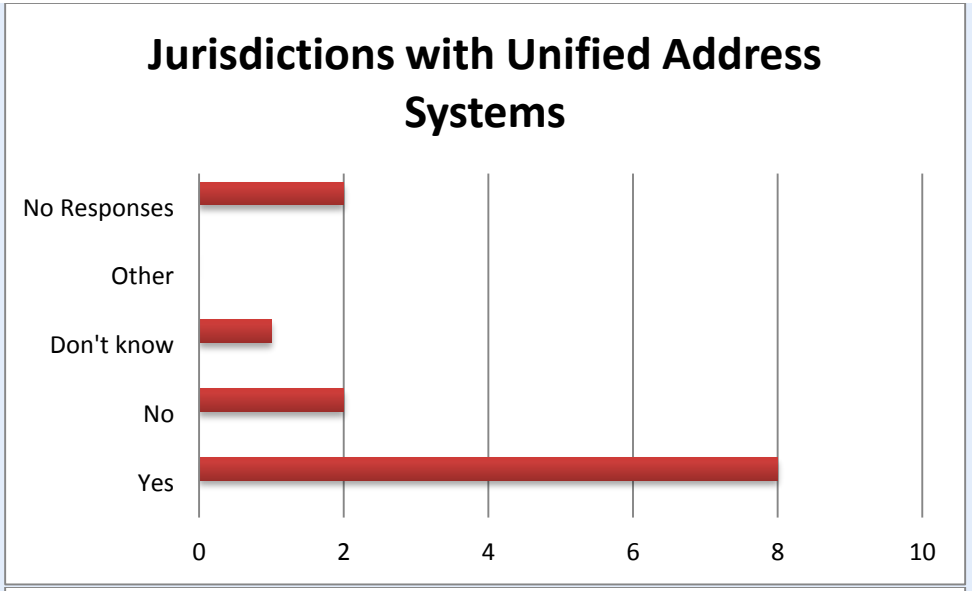
5. Is your department represented in the County LEPC?



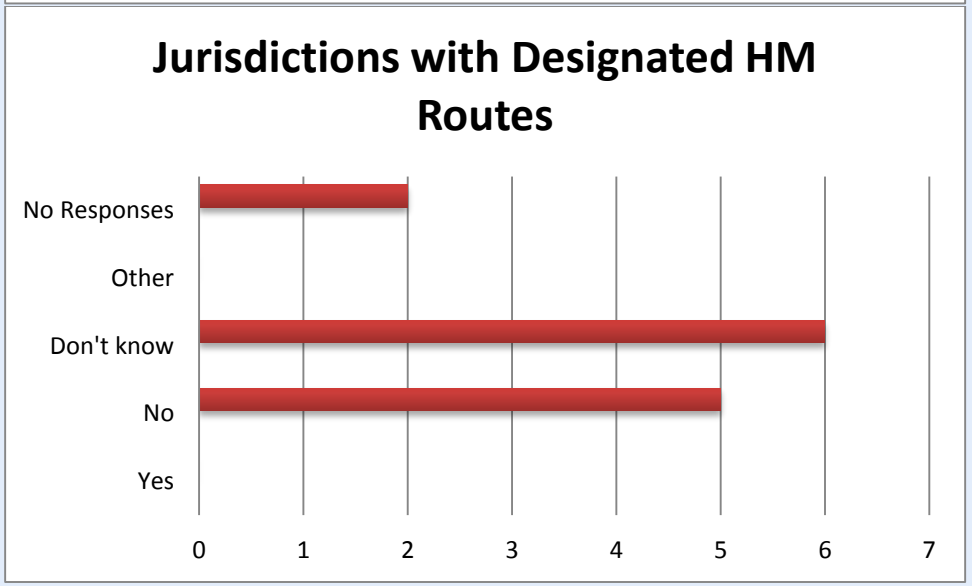
6. Did your department actively participate in the update of the ESF #10 Hazardous Materials section of the County Emergency Operations Plan?



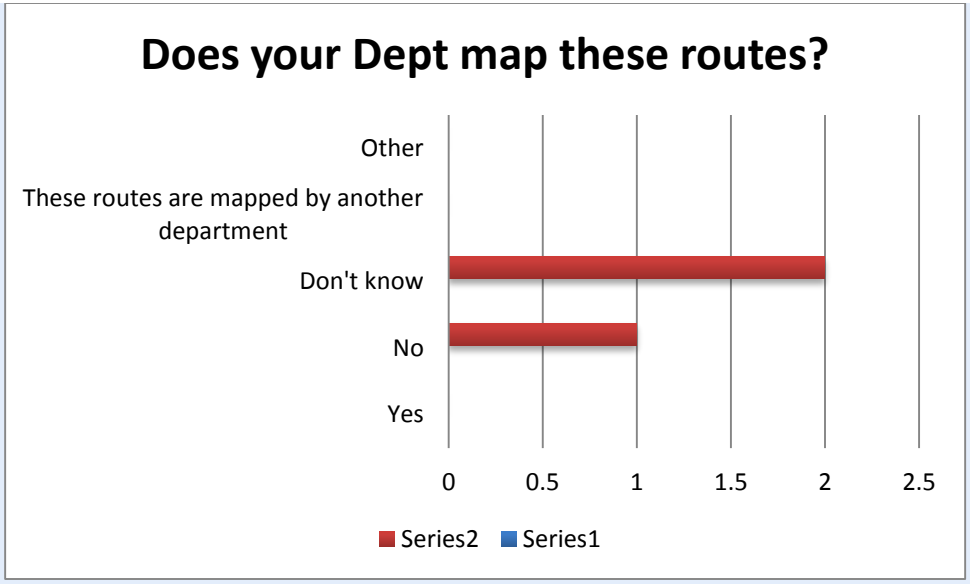
10. Does your jurisdiction have a comprehensive (unified) address system?



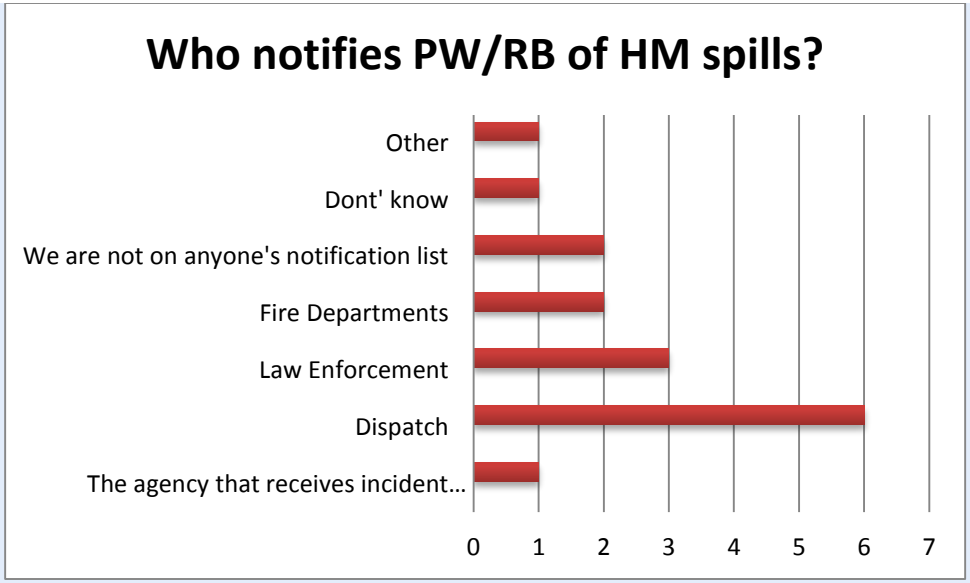
11. Does your jurisdiction have designated hazardous materials routes?



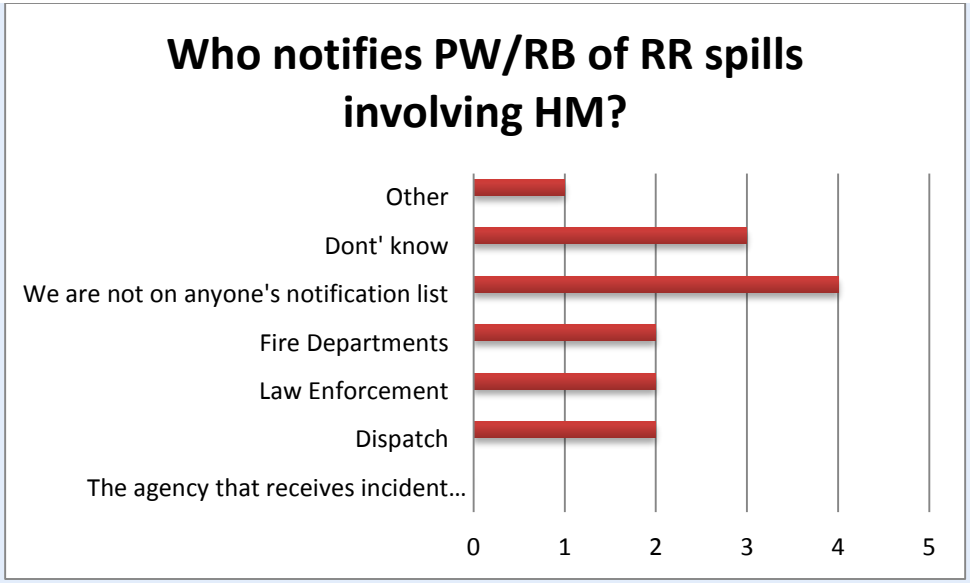
12. If you answered YES to the question above, are those routes mapped by your department? You MAY select more than one answer. IF you select #4, tell us the name of that agency in the COMMENT section below.



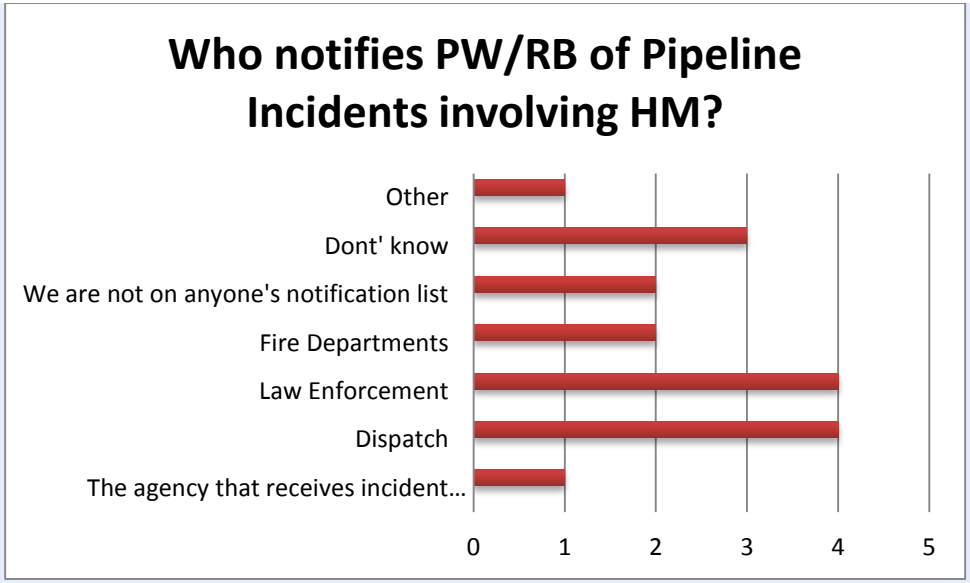
13. How are you notified of ROAD or HIGHWAY transportation incidents that involve hazardous materials spills?



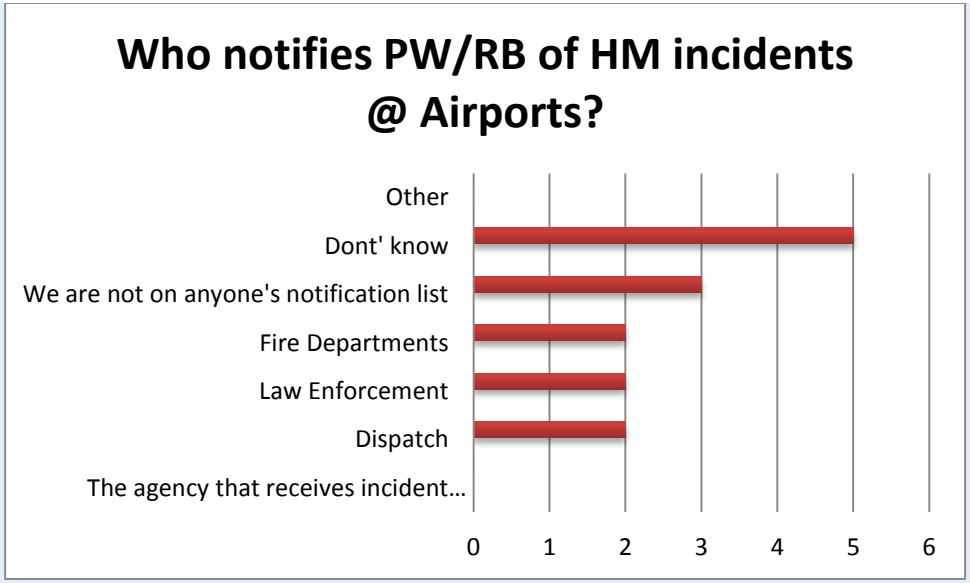
14. How are you notified of railroad incidents that involve hazardous materials spills?



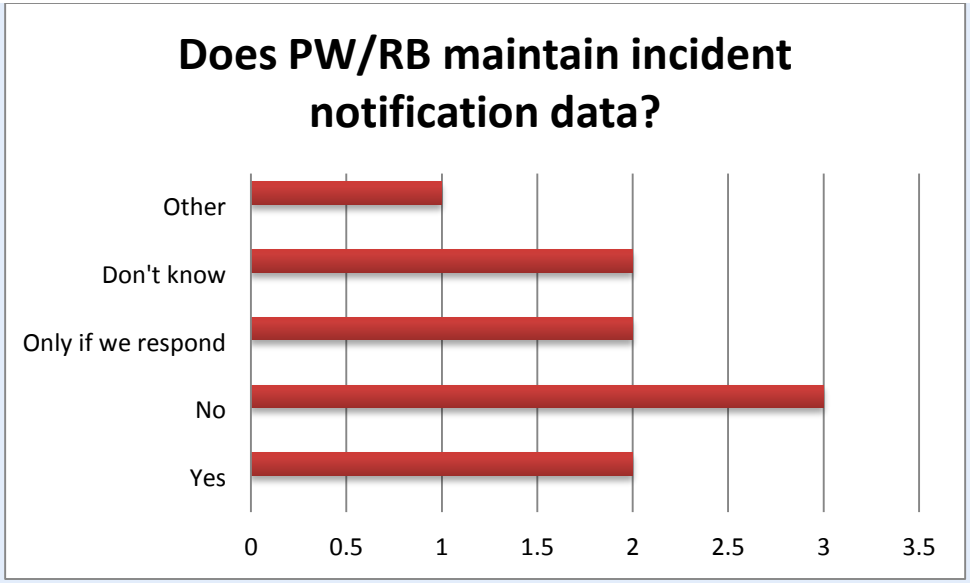
15. How are you notified of pipeline incidents that involve hazardous materials spills?



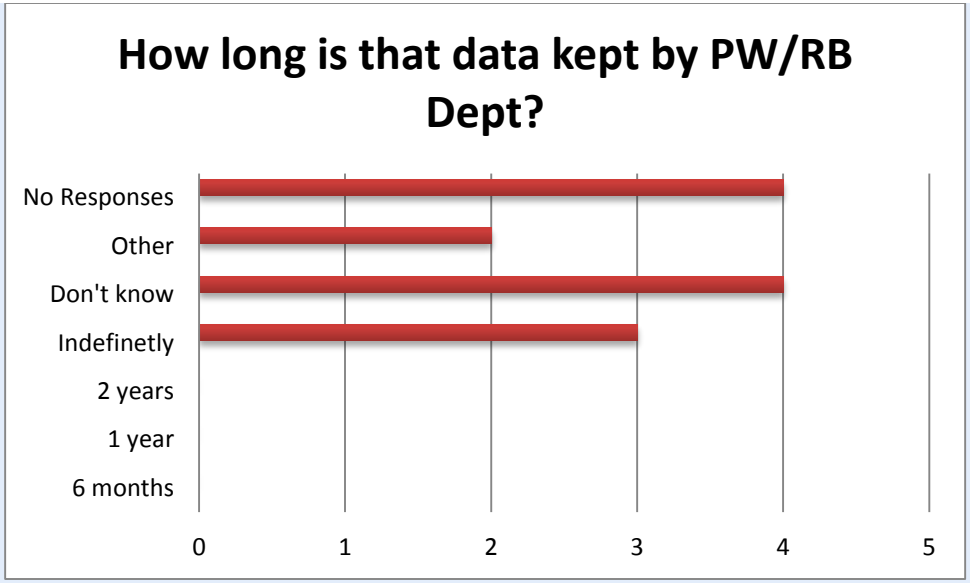
16. How are you notified of incidents at airports that involve hazardous materials spills?



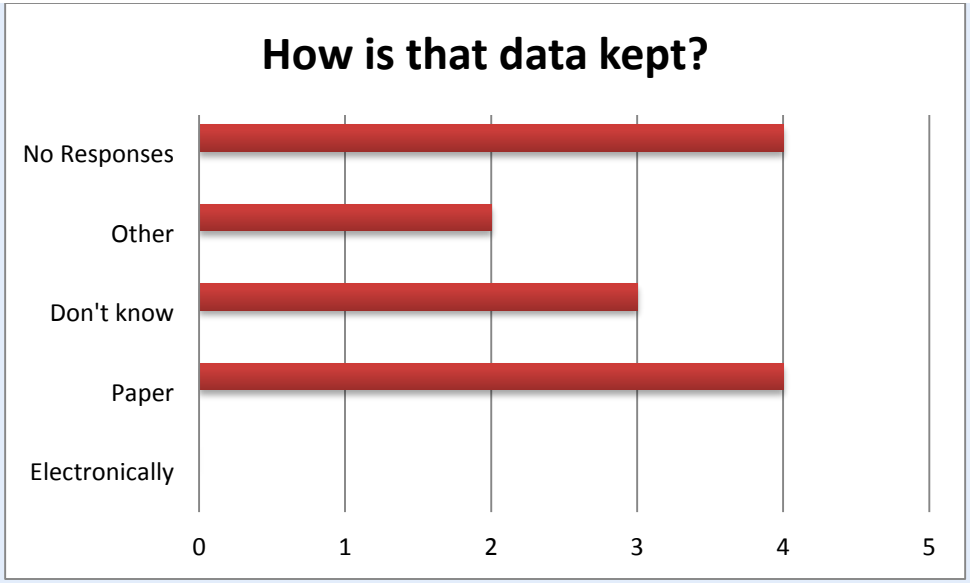
17. Do you keep documentation on all incident notifications your agency/department receives?



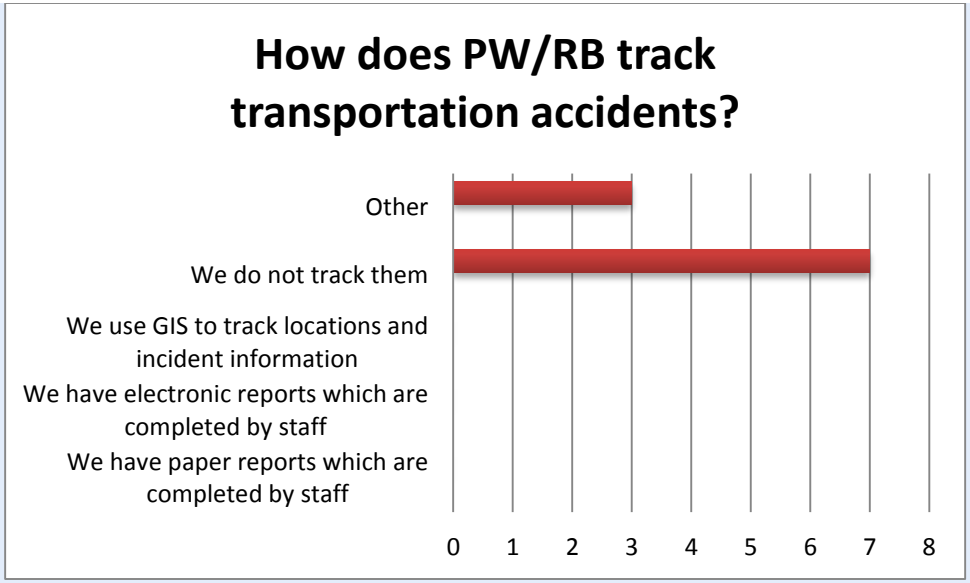
18. For how long do you keep that information?



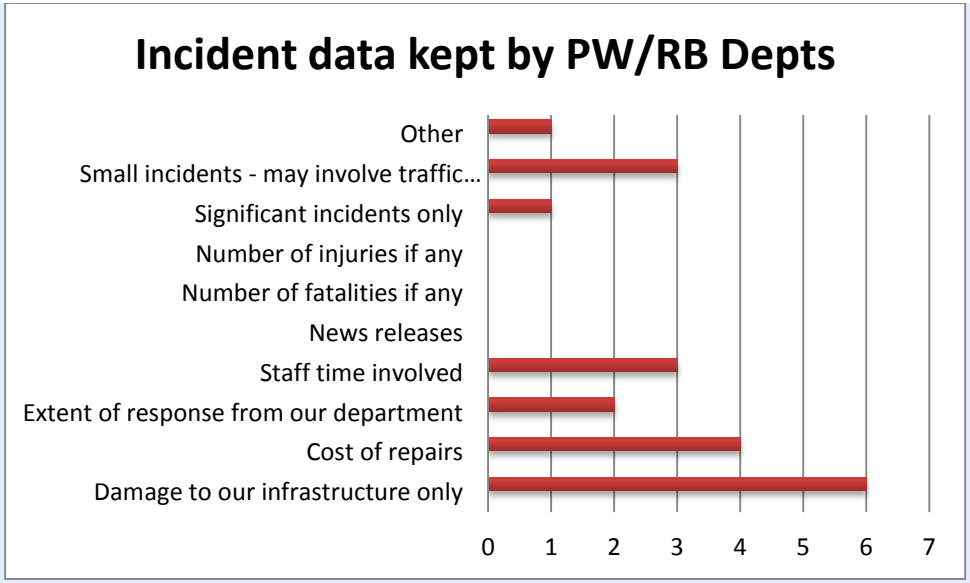
19. How is that information kept?



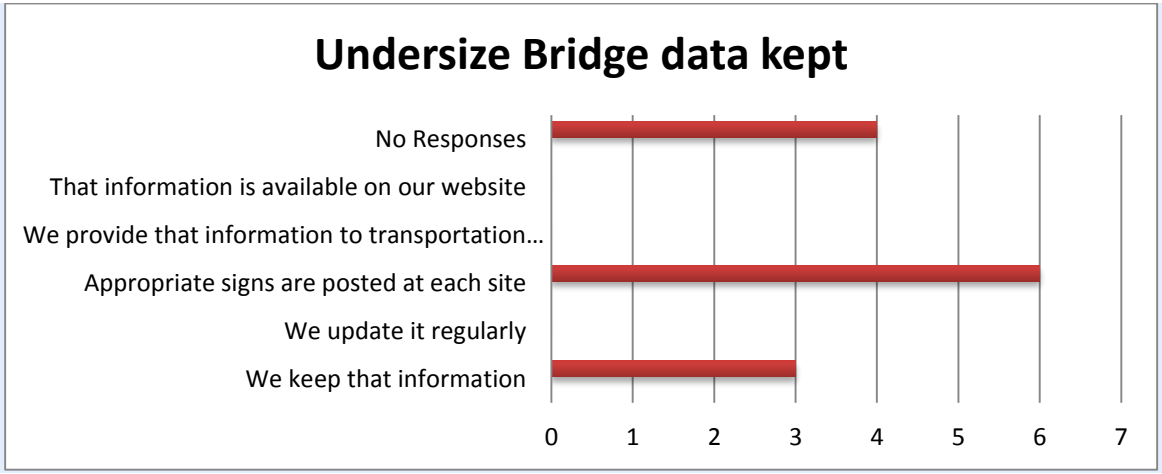
20. How do you track transportation accidents?



21. What level of incident information do you keep?



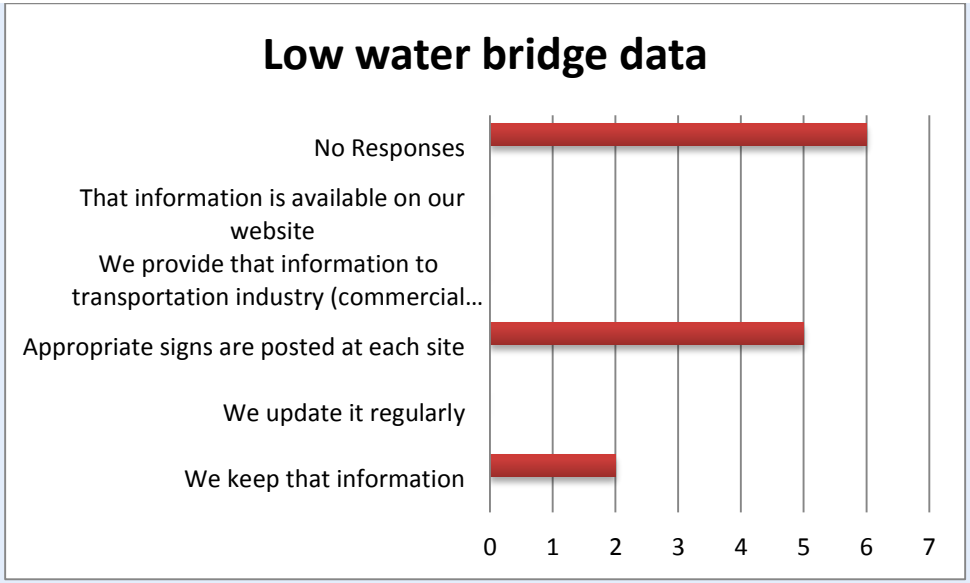
22. Undersize bridge information - select all that apply.



23. List undersize bridge locations along County Collector Roads. Lat/Long information preferred. IF there are none, please state: NONE in the space below.

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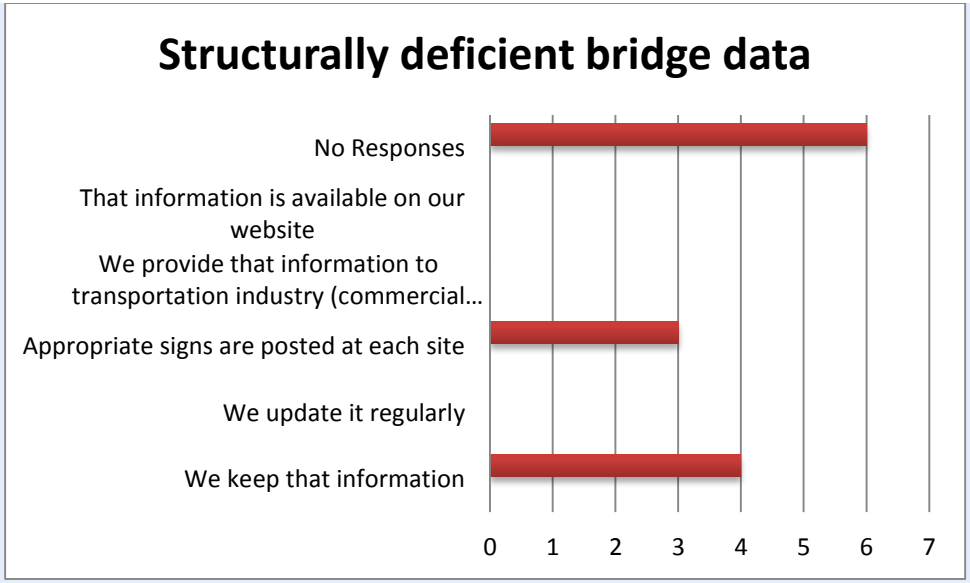
24. Low water bridge information - select all that apply.



25. List location of low water bridges along County Collector Routes. Lat/Long information preferred. IF there are none, please state: NONE in the space below.

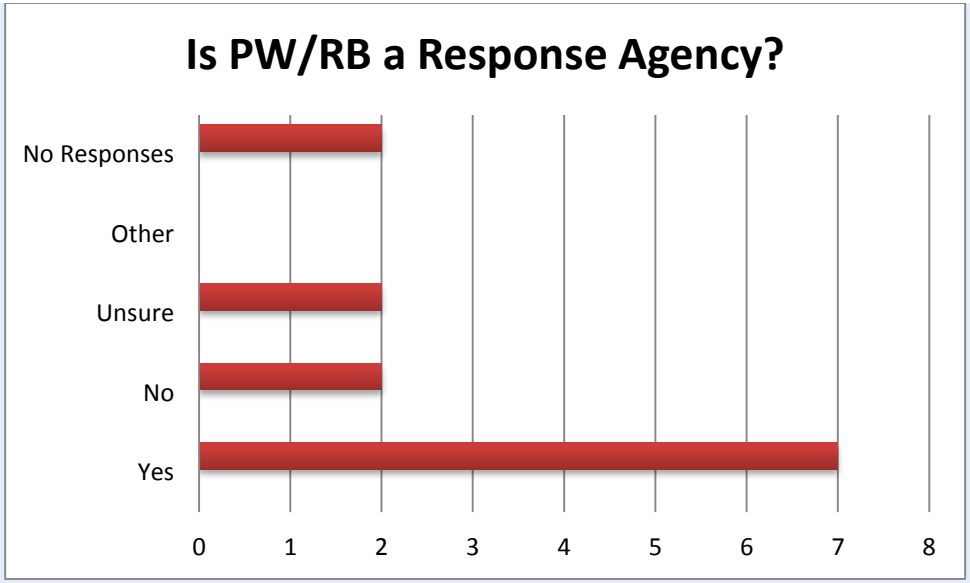
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26. Structurally deficient bridge information - select all that apply.

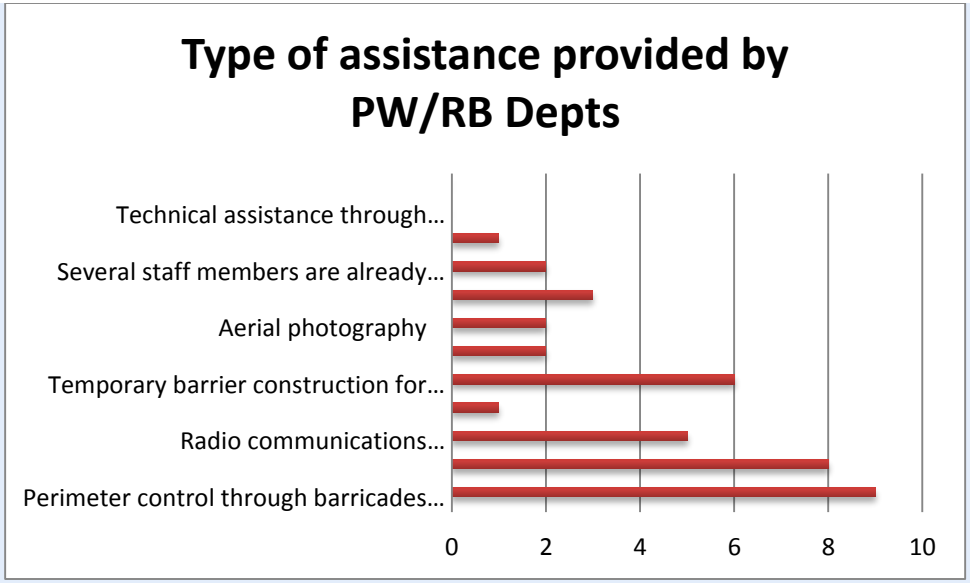


27. List location of structurally deficient bridges along County Collector Roads. Lat/Long information preferred. IF there are none, please state: NONE in the space below.

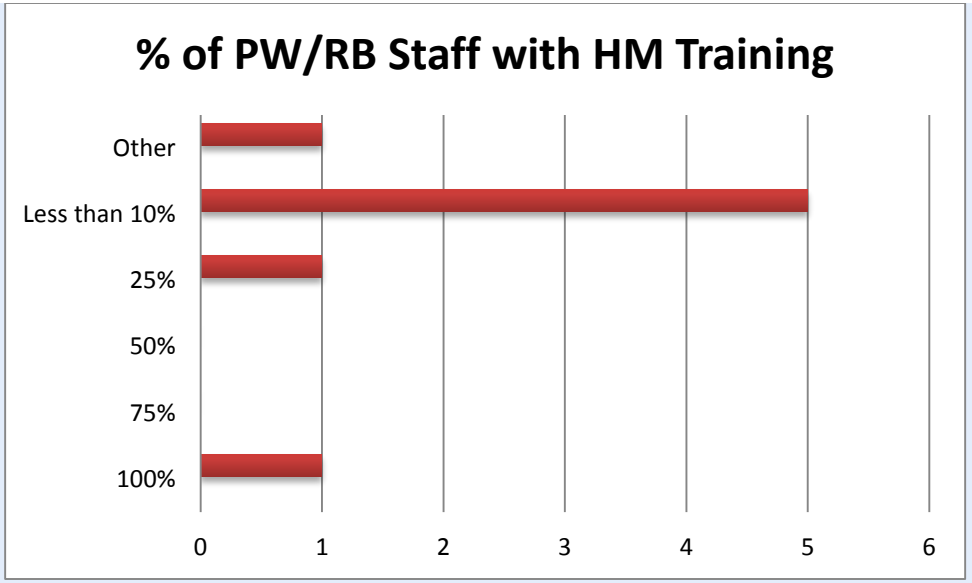
28. Do you view your department as an EMERGENCY RESPONSE agency?



29. What type of emergency assistance do you - or could you - provide during a hazardous materials incident? Select as many as apply.

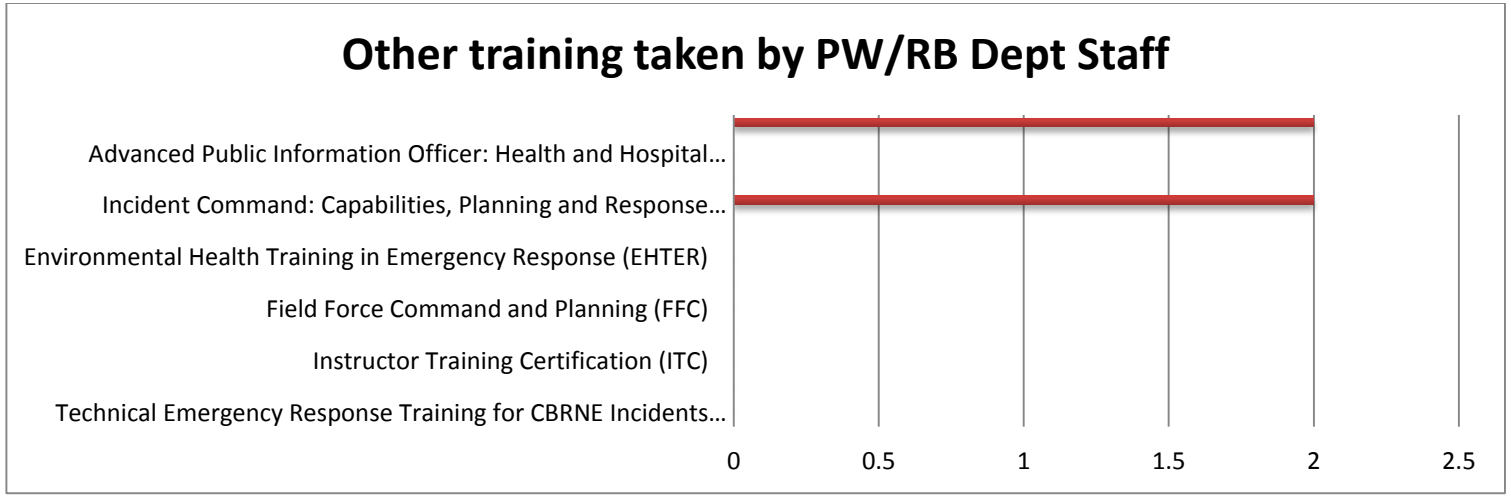


30. What percentage of your department's field staff has received hazardous materials response training? Use the comment section below to describe the levels of training provided.

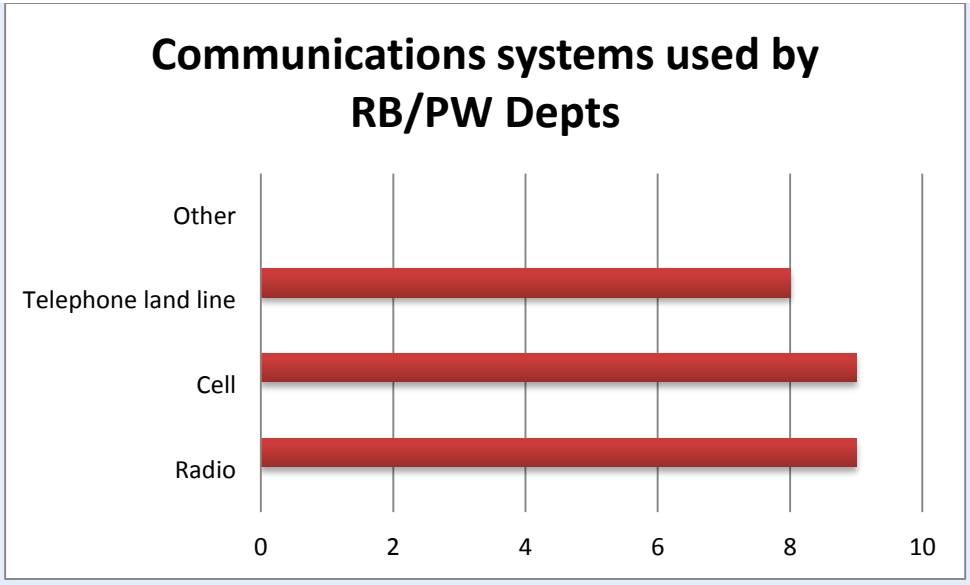


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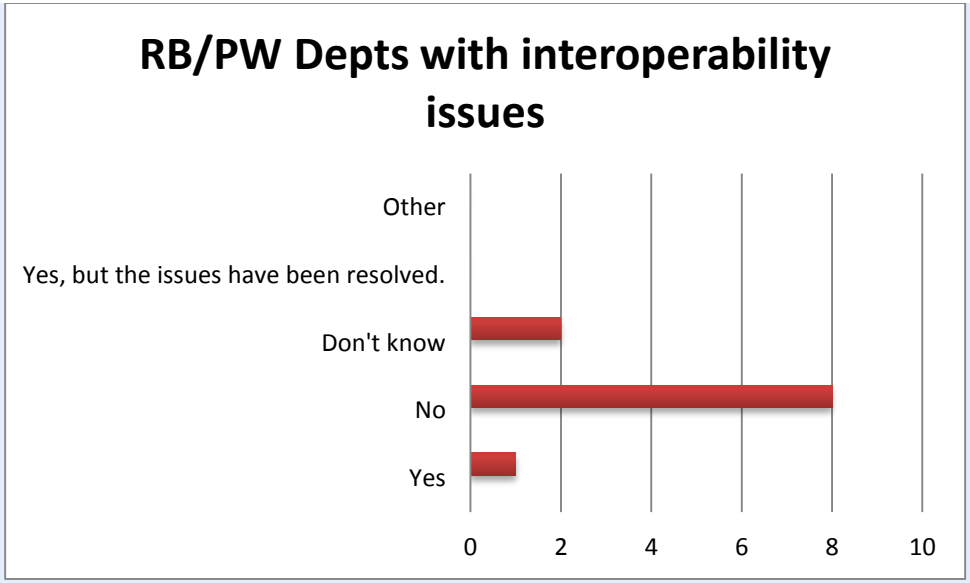
31. FEMA's Center for Domestic Preparedness (https://cdp.dhs.gov/training/discipline/) recommends a list of training courses for public works disciplines. Please indicate the courses your department requires of field staff, if any.



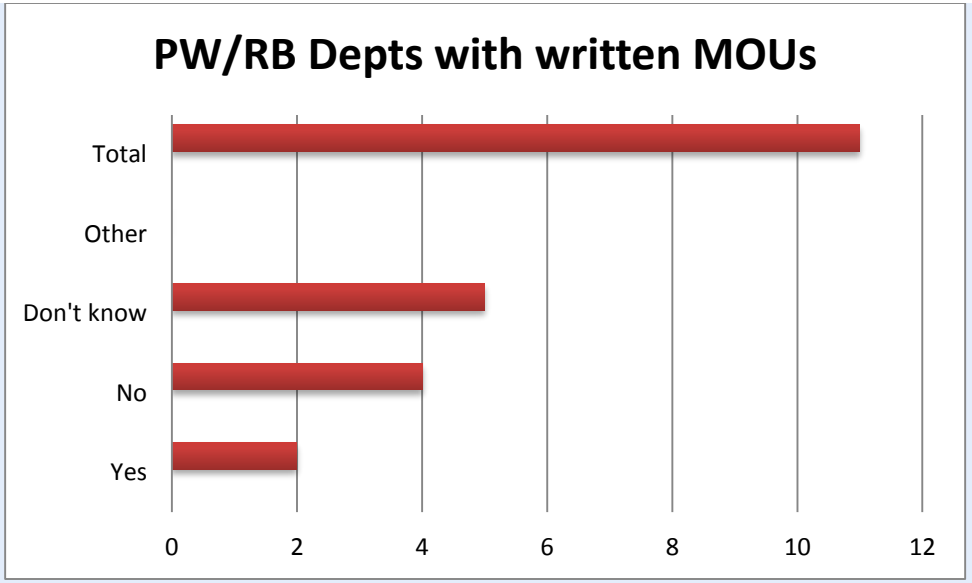
32. What communications systems do you use in emergencies?



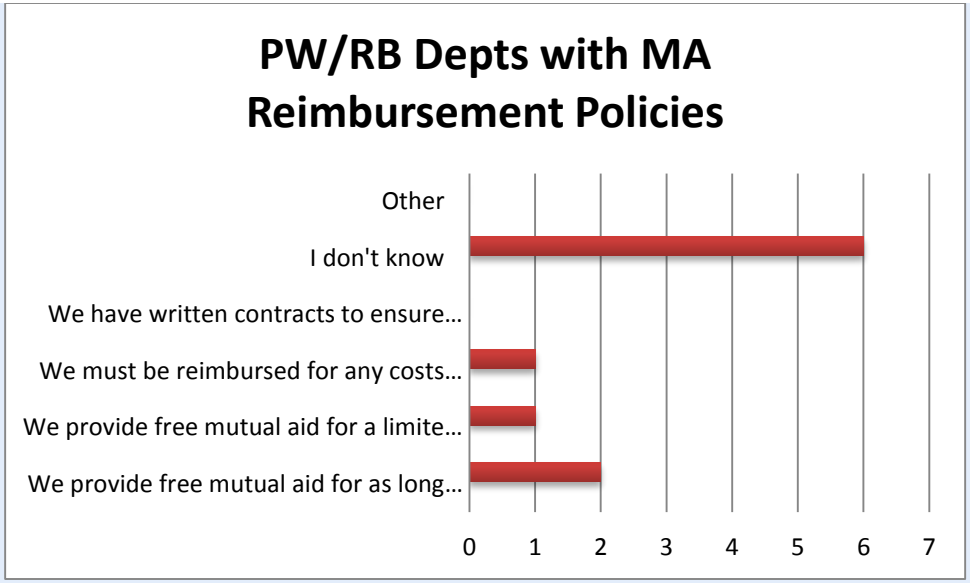
33. Have you encountered radio interoperability issues communicating with other response agencies during emergencies or day to day operations? Use the comment section below to expand on the issues.



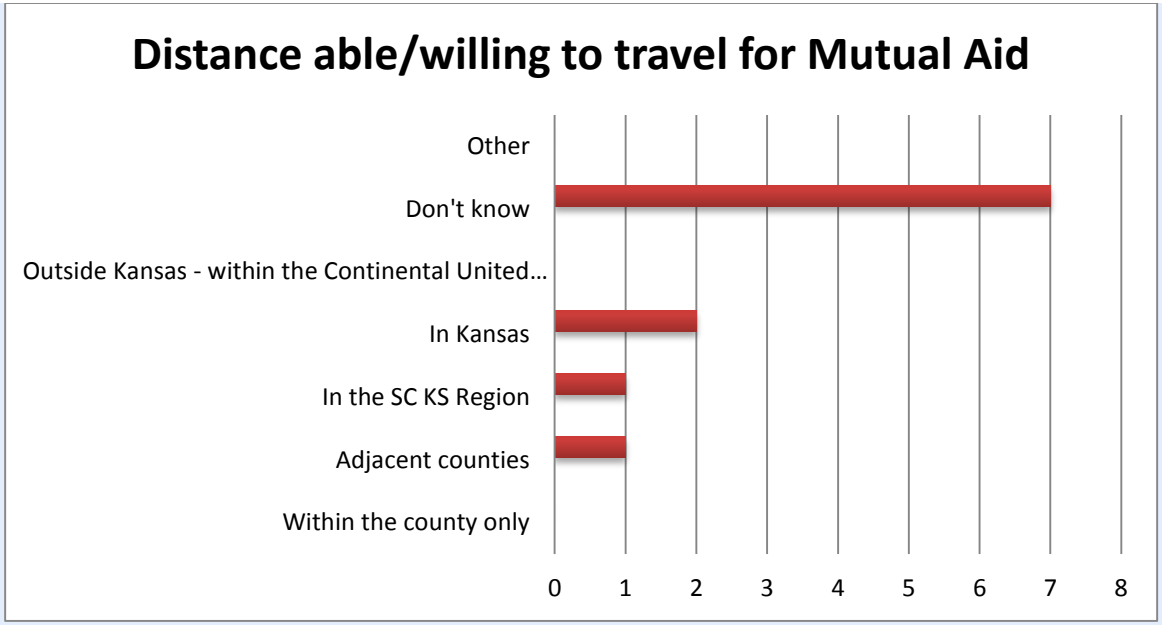
34. Does your department have written mutual aid agreements with counterparts in neighboring jurisdictions?



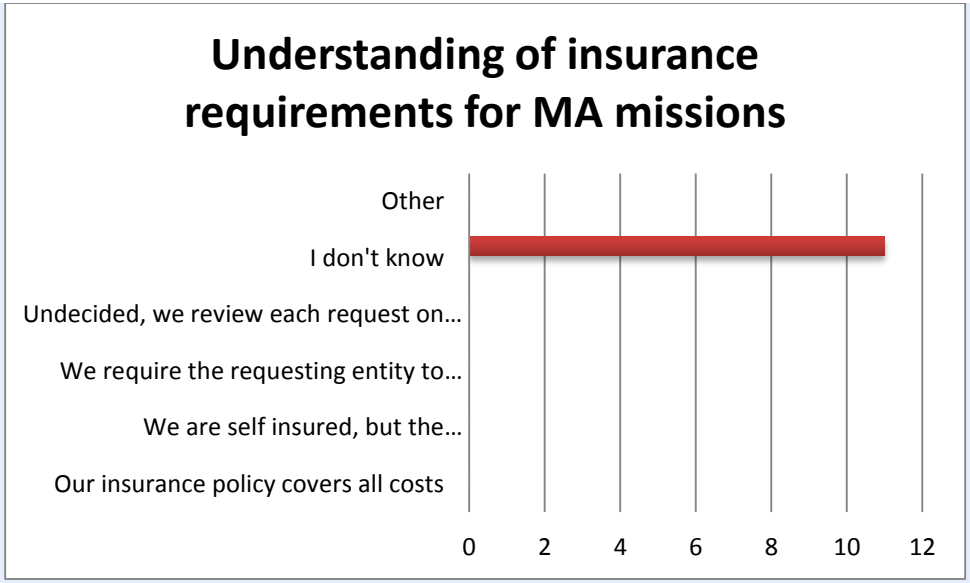
35. What are your department's policies on reimbursement for providing mutual aid to other jurisdictions?



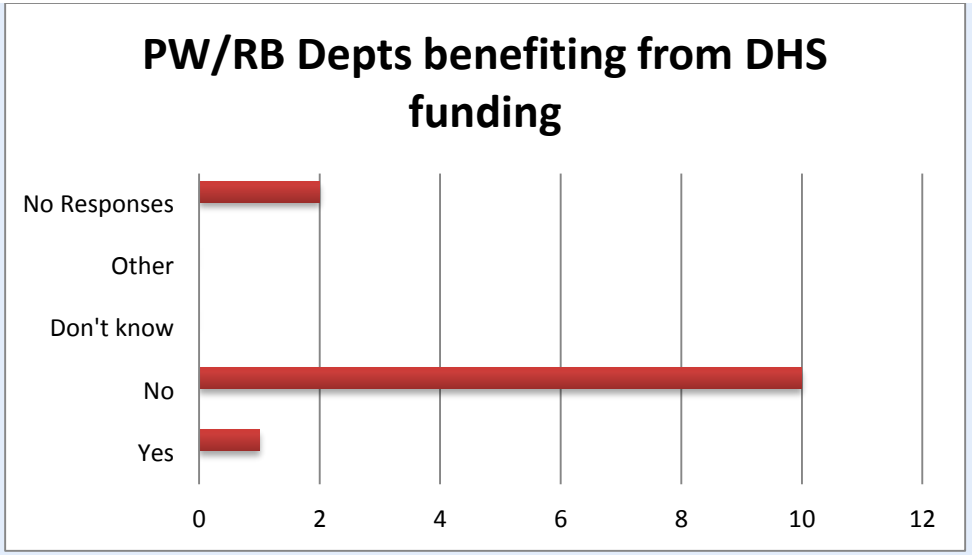
36. How far would your department / equipment travel to provide mutual aid?



37. What are your insurance requirements for equipment/staff deployed in mutual aid missions?

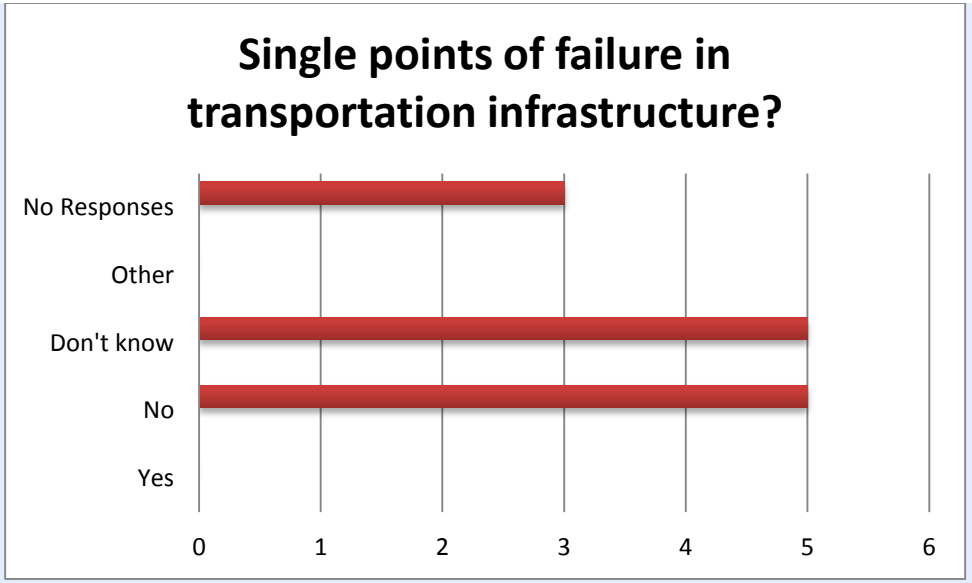


38. Has your department received Homeland Security Funds to purchase equipment that could be used in response to a hazardous materials incident? This may include equipment purchased on your behalf, for which your agency is responsible to manage and upkeep.



39. If you answered YES to the question above, list the equipment type and number.

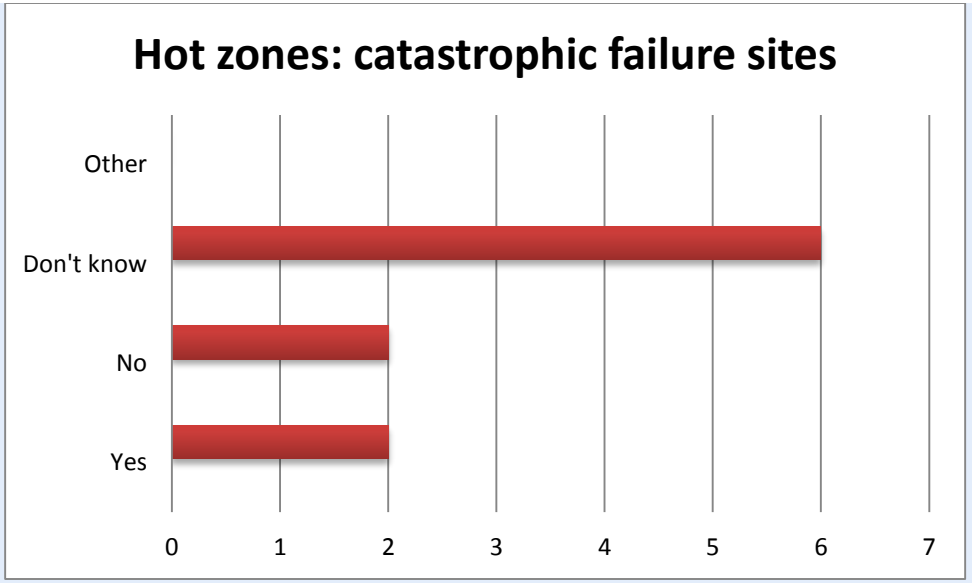
40. In your opinion, are there any infrastructure 'single points of failure' along roads/highways used by hazardous materials transporters in your jurisdiction? This could be a bridge too expensive to replace, a single access route to enter or evacuate an area, etc.



41. If you answered YES on the question above, please describe the site(s)

0 Response(s)

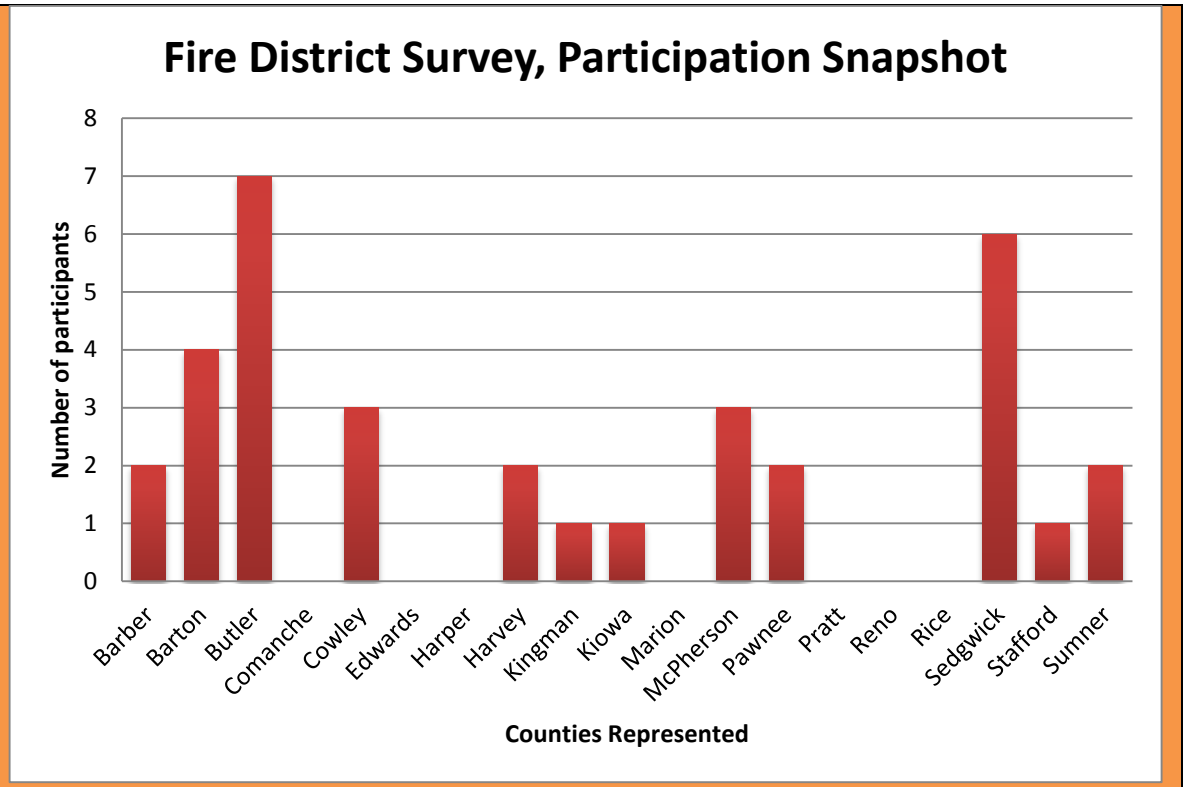
42. Are there sites in your county where transportation infrastructure failures would cause catastrophic failures to other critical networks? For example, a junction of road that is intersected by other critical infrastructure, data transmission cables, major power lines, gas/oil lines near a vulnerable site, etc.



43. If you answered YES to the question above, list the approximate location of areas of concern below.

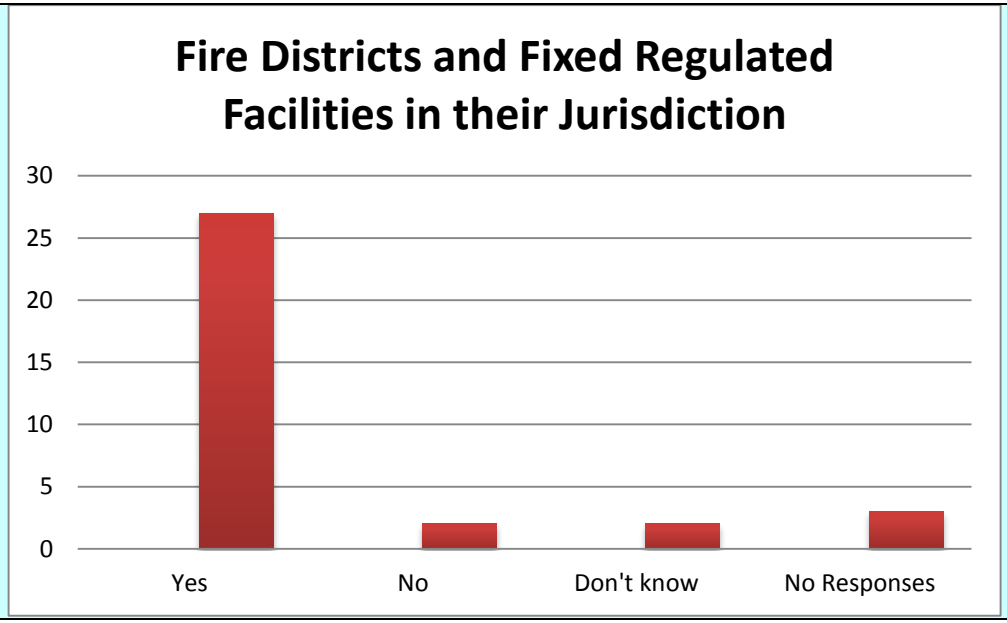
Fire District Survey Results

Survey Results: Worse Case Scenarios by Fire District SCKS CFS		
Response Status: Partial & Completed		
7/31/2014 11:43 AM CDT		
County	# of Response(s)	Response Ratio
Barber	2	6%
Barton	4	12.12%
Butler	7	21.21%
Comanche	0	0%
Cowley	3	9.09%
Edwards	0	0%
Harper	0	0%
Harvey	2	6%
Kingman	1	3.03%
Kiowa	1	3.03%
Marion	0	0%
McPherson	3	9.09%
Pawnee	2	6%
Pratt	0	0%
Reno	0	0%
Rice	0	0%
Sedgwick	6	18.18%
Stafford	1	3.03%
Sumner	2	6%
Other	0	0%
Total	33	



Number of Fire Districts Responding: 31

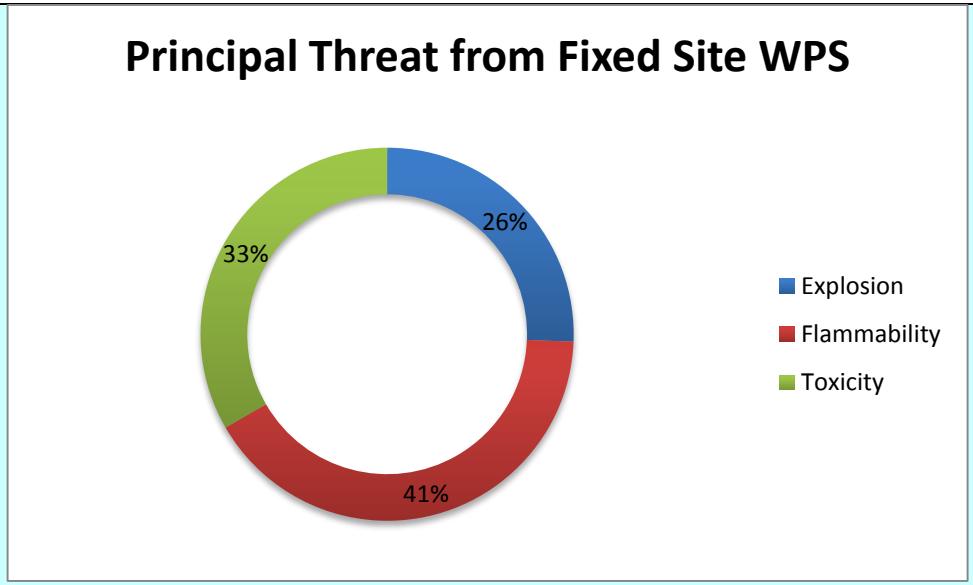
Are there fixed regulated facilities (within your FD) that transport by ground hazardous materials in and out of their site?		
	Number of Response(s)	Response Ratio
Yes	27	79%
No	2	6%
Don't know	2	6%
No Responses	3	9%
Total	34	100%



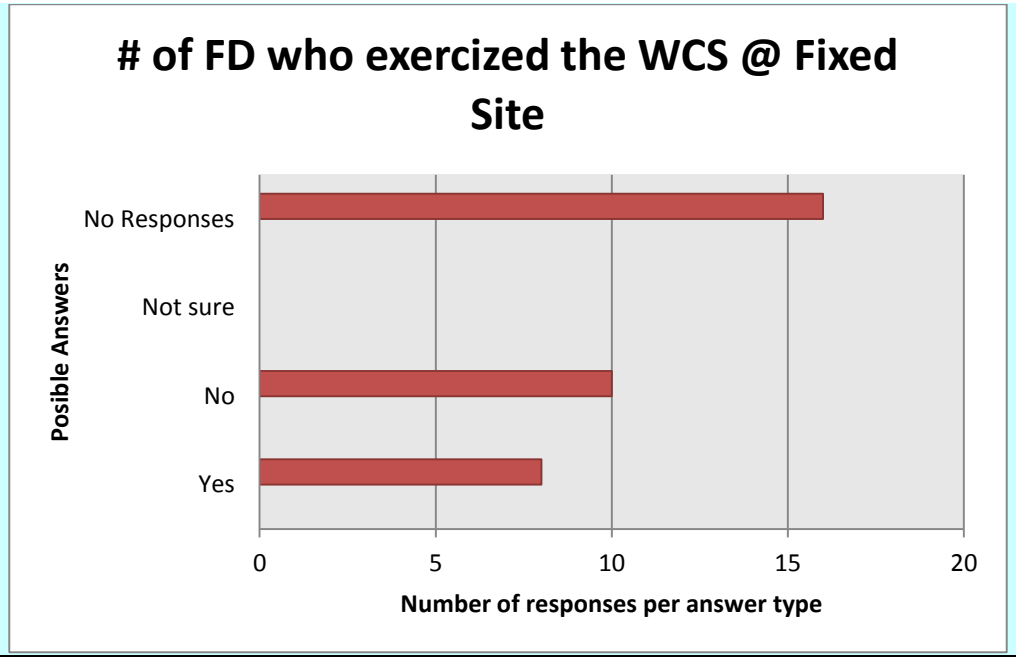
When you look at the list of those facilities, think of the one that represents the Worse Possible Scenario for your Fire District. Tell us the facility name and address:

10 Response(s)

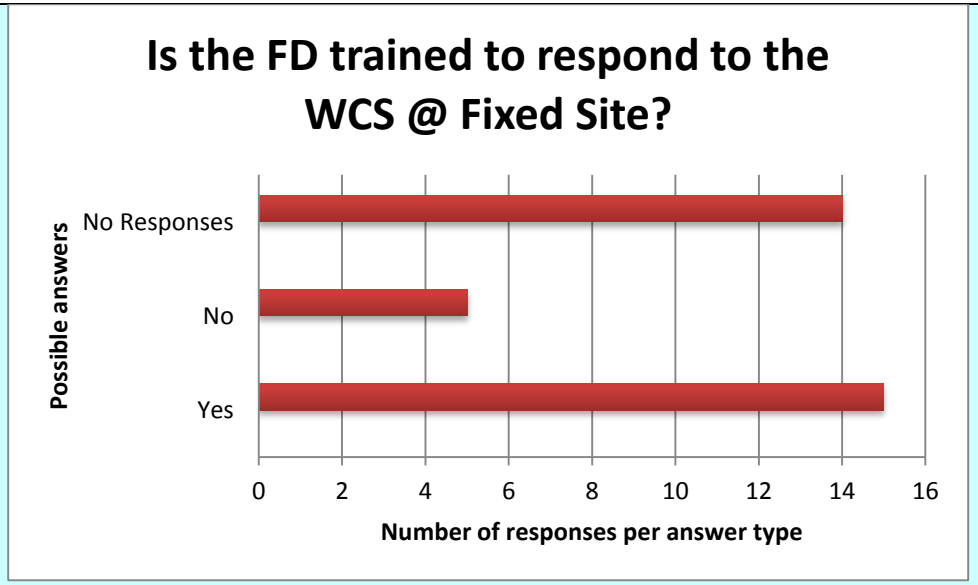
What is the principal threat of the chemicals transported in and out of this site?		
	Number of Response(s)	**Response Ratio**
Explosion	10	100%
Flammability	16	160%
Toxicity	13	130%
Total	20	200%



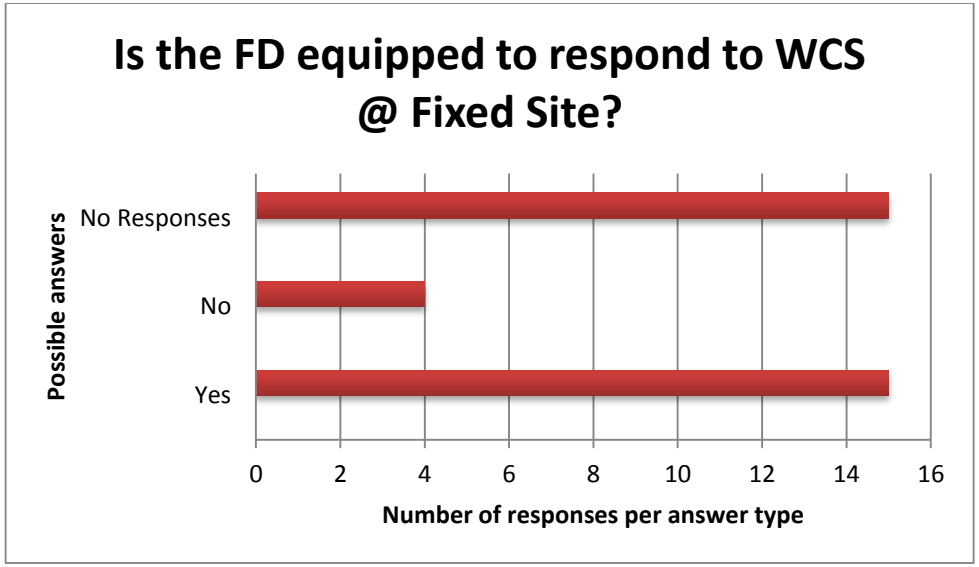
Has your FD exercised (tested) the response to a scenario at that facility and the HazMat you described above?		
	Number of Response(s)	Response Ratio
Yes	8	24%
No	10	29%
Not sure	0	0.0%
No Responses	16	47%
Total	34	100%



Is your FD staff trained to respond to this type of threat?			
		Number of Response(s)	Response Ratio
Yes		15	44%
No		5	15%
No Responses		14	41%
Total		34	100%



Is your FD staff equipped to respond to this type of threat?		
	Number of Response(s)	Response Ratio
Yes	15	44%
No	4	12%
No Responses	15	44%



Total	34	100%

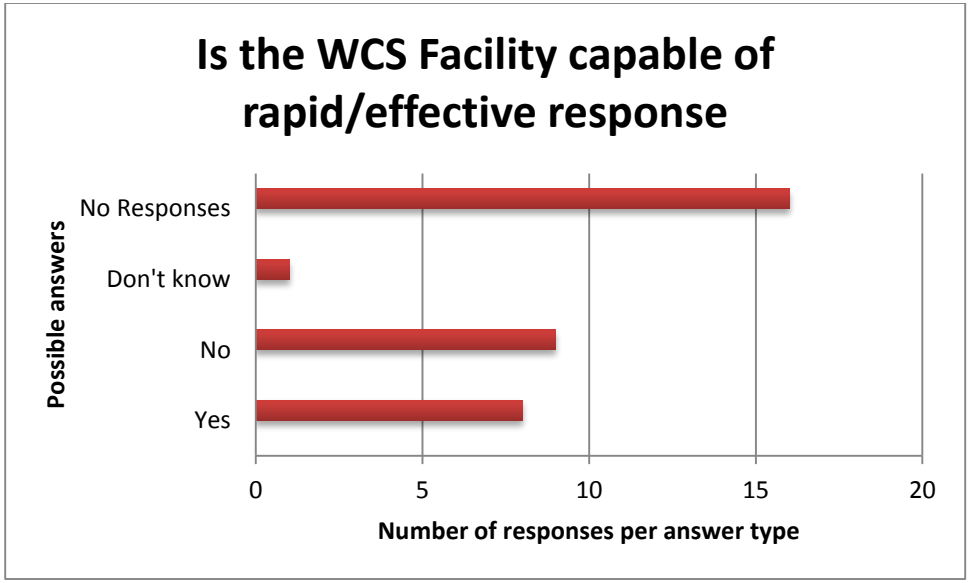
What is your FD estimated response time to that facility?

10 Response(s)

Does this facility have the capability to rapidly and effectively respond to this incident?

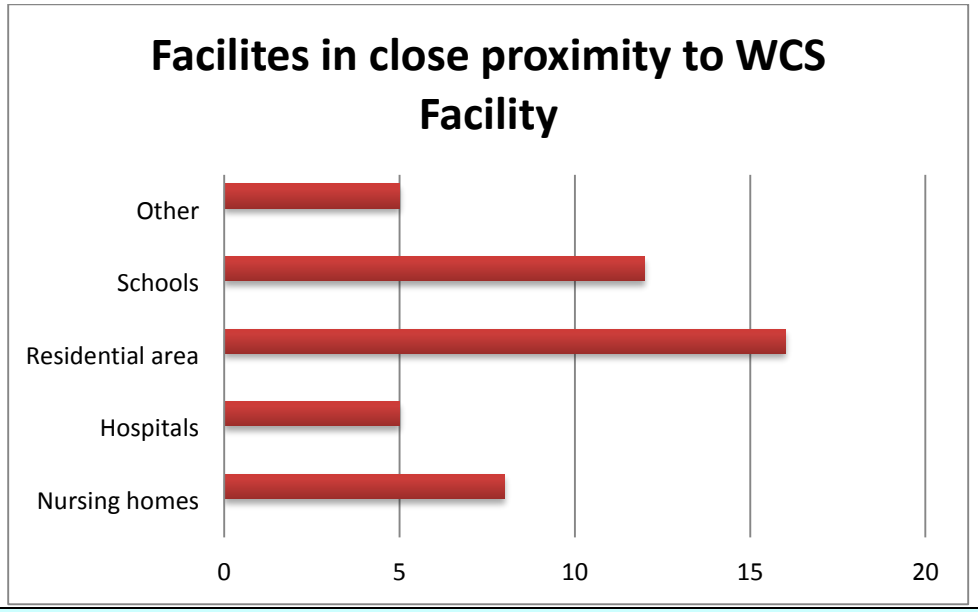
	Number of Response(s)	Response Ratio
Yes	8	24%
No	9	26%
Don't know	1	3%

No Responses	16	47%
Total	34	100%



How close is this facility to "population pockets"? Check those that are within a mile from the site:			
		Number of Response(s)	**Response Ratio**
Nursing homes		8	80%
Hospitals		5	50%

Residential area	16	160%
Schools	12	120%
Other	5	50%
Total	20	200%

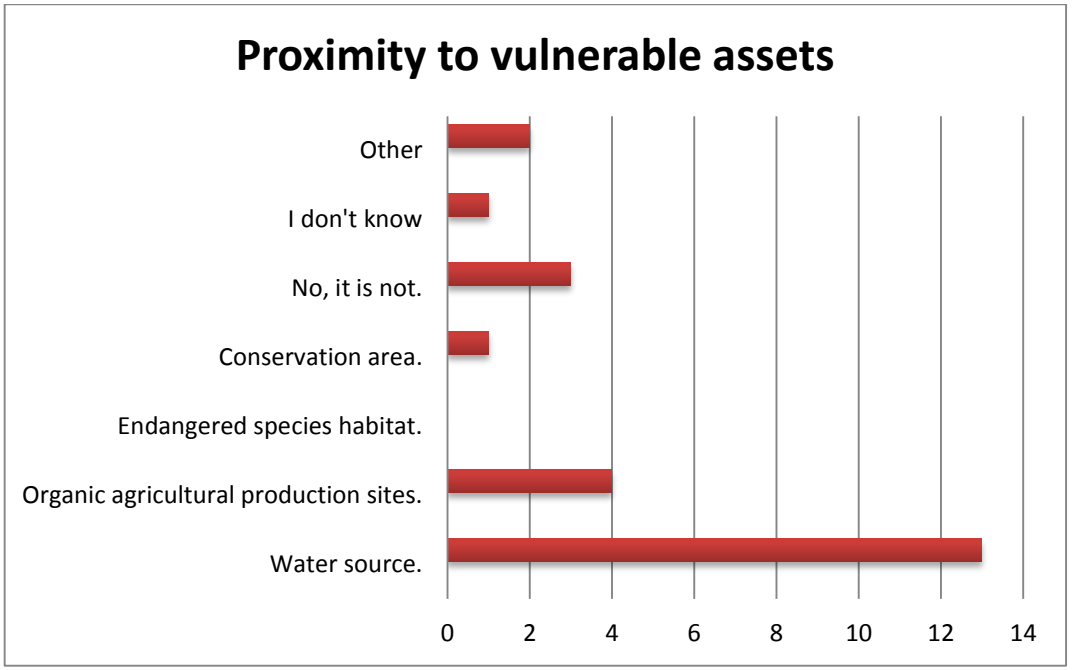


9 Comment(s)

Is this facility close to vulnerable assets? Within 1-2 miles from:

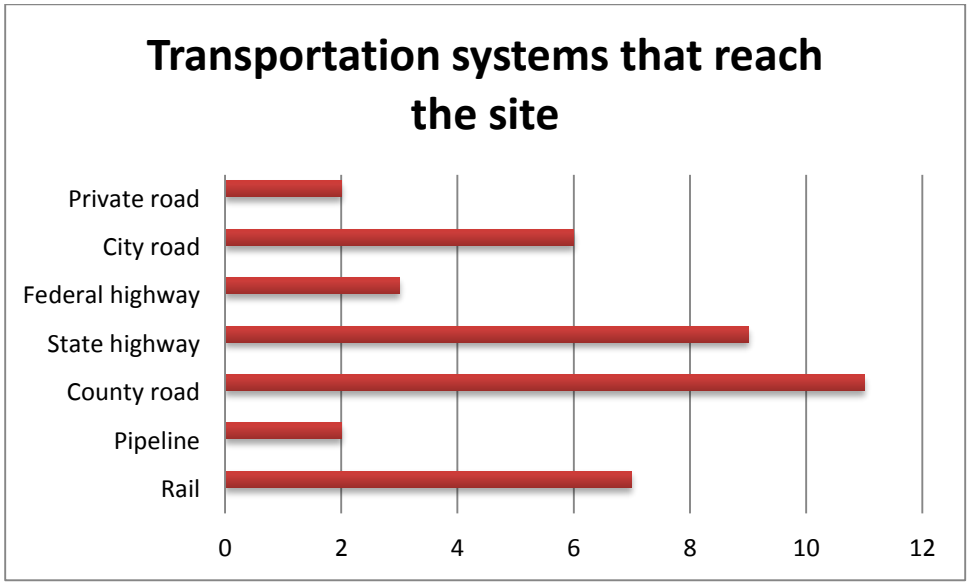
		Number of Response(s)	Response Ratio
Water source.		13	130%
Organic agricultural production sites.		4	40%
Endangered species habitat.		0	0%
Conservation area.		1	10%
No, it is not.		3	30%
I don't know		1	1%
Other		2	20%

Total	20	200%



How is this facility accessible? Identify all that apply		
	Number of Response(s)	Response Ratio
Rail	7	70%
Pipeline	2	20%
County road	11	110%
State highway	9	90%
Federal highway	3	30%
City road	6	60%

Private road	2	20%
Total	20	200%



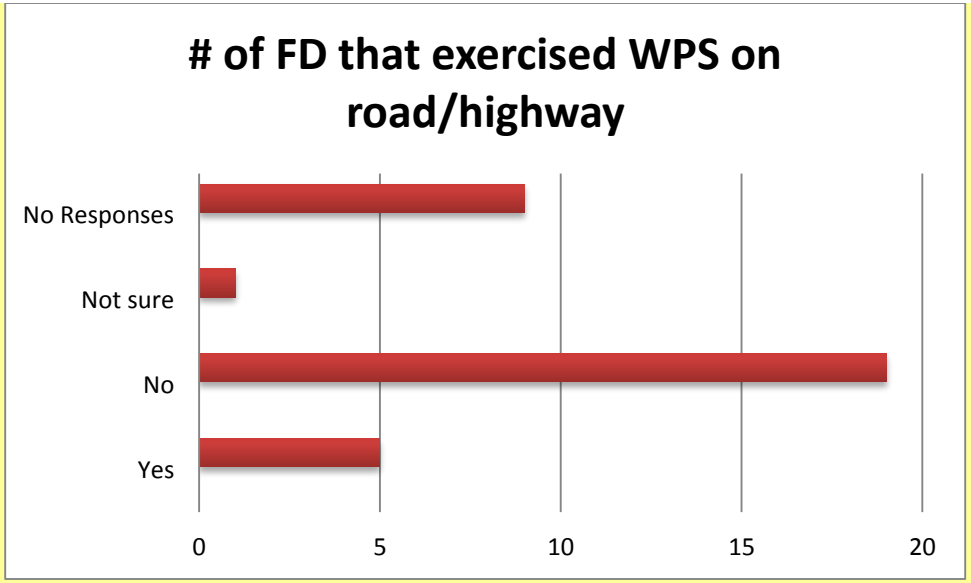
2 Comment(s)

Tell us the road name(s) and approximate location of the Worse Possible Scenario you are thinking of.

11 Response(s)

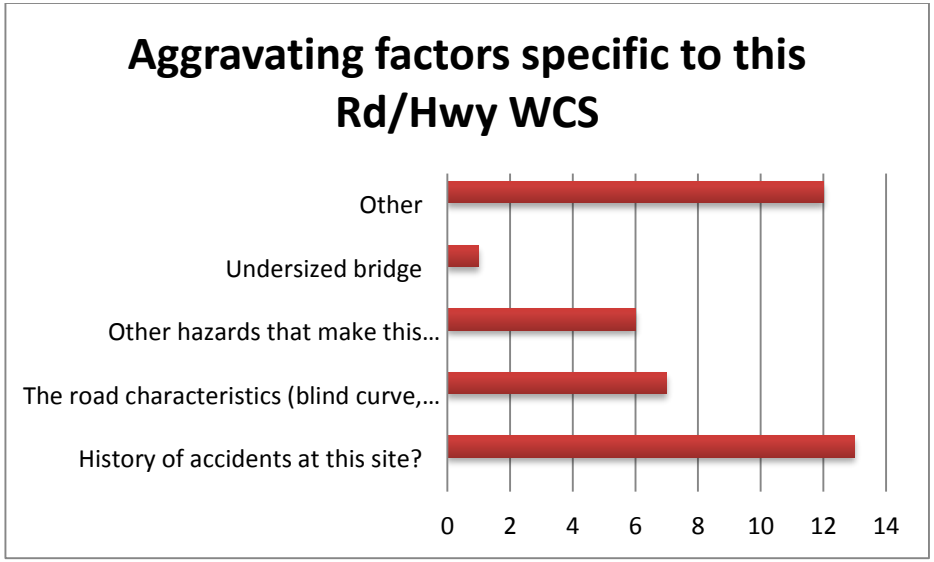
Has you FD exercised (tested) the response to a similar scenario at the site you just described?

	Number of Response(s)	Response Ratio
Yes	5	15%
No	19	56%
Not sure	1	3%
No Responses	9	26%
Total	34	100%



What about this location concerns you?		
	Number of Response(s)	Response Ratio
History of accidents at this site?	13	52%
The road characteristics (blind curve, unpaved, etc)	7	28%
Other hazards that make this location a problem (flood, erosion, etc)	6	24%
Undersized bridge	1	4%
Other	12	48%

Total	25	100%

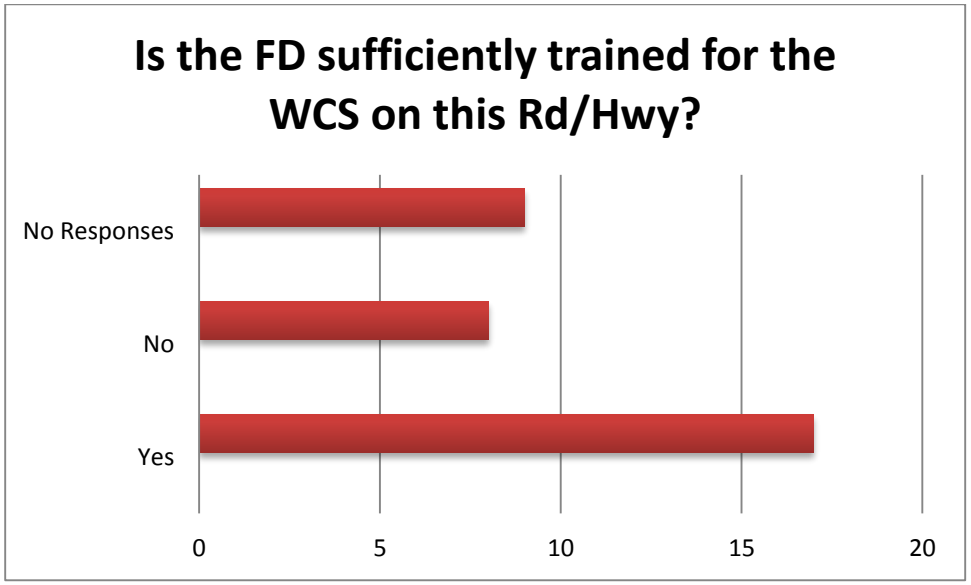


What is your FD estimated response time to that roadside?

11 Response(s)

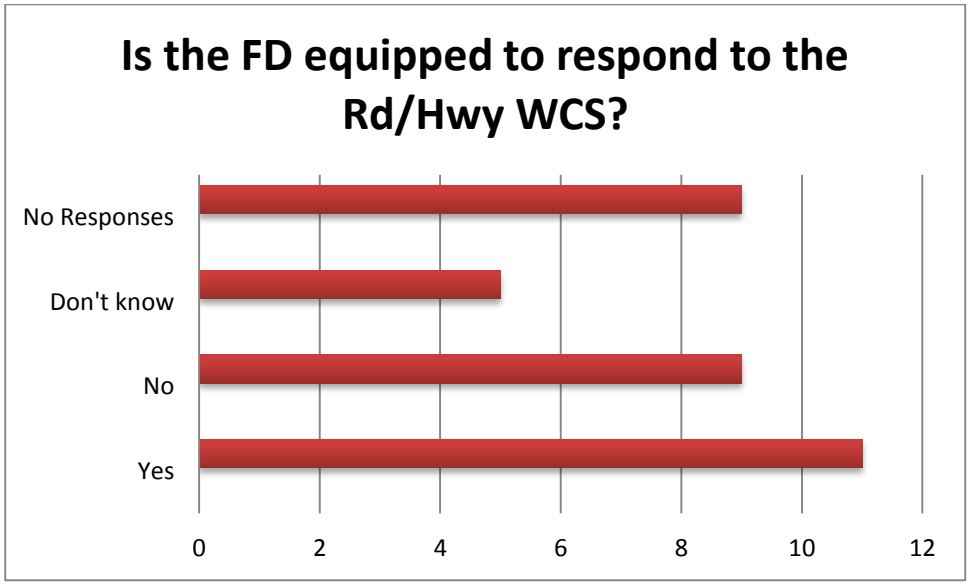
Is your FD staff trained to respond to this type of threat?

	Number of Response(s)	Response Ratio
Yes	17	50%
No	8	35%
No Responses	9	36%

Total	34	100%	

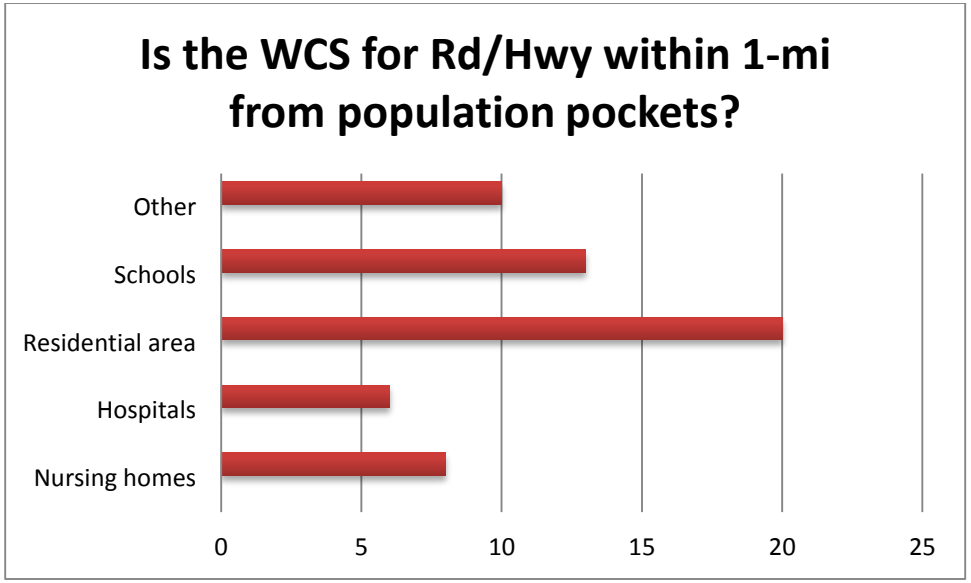
Is your FD equipped to respond to this type of threat?		
	Number of Response(s)	**Response Ratio**
Yes	11	32%

No	9	26%
Don't know	5	15%
No Responses	9	26%
Total	34	100%



Is this road and location close to "population pockets"? Check those that are within a mile from the site:

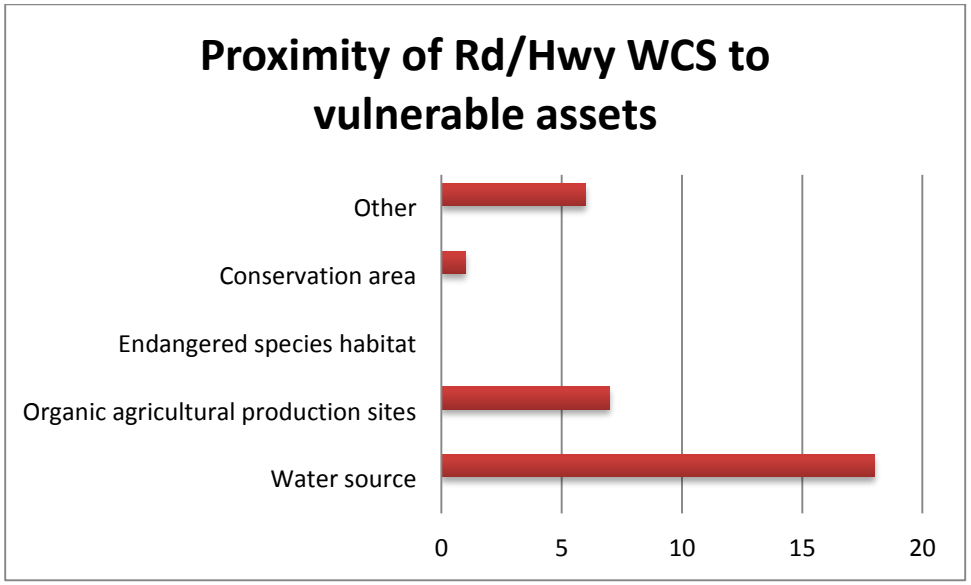
	Number of Response(s)	Response Ratio
Nursing homes	8	32%
Hospitals	6	24%
Residential area	20	80%
Schools	13	52%
Other	10	40%
Total	25	100%



18 Comment(s)

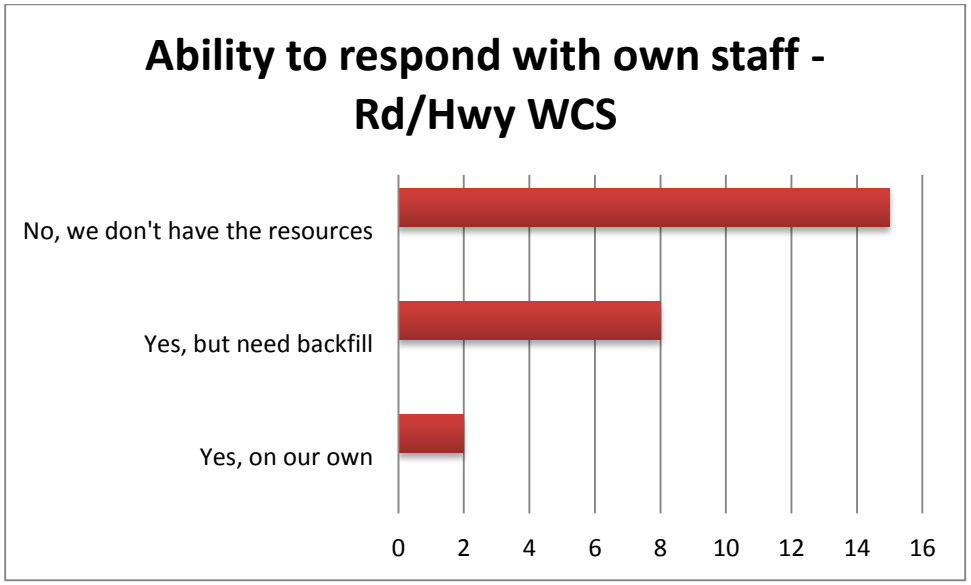
Is the location on this road close to vulnerable assets? Within 1-2 miles from:		
	Number of Response(s)	Response Ratio
Water source	18	72%
Organic agricultural production sites	7	28%
Endangered species habitat	0	0.0%
Conservation area	1	4%
Other	6	24%

Total	25	100%	

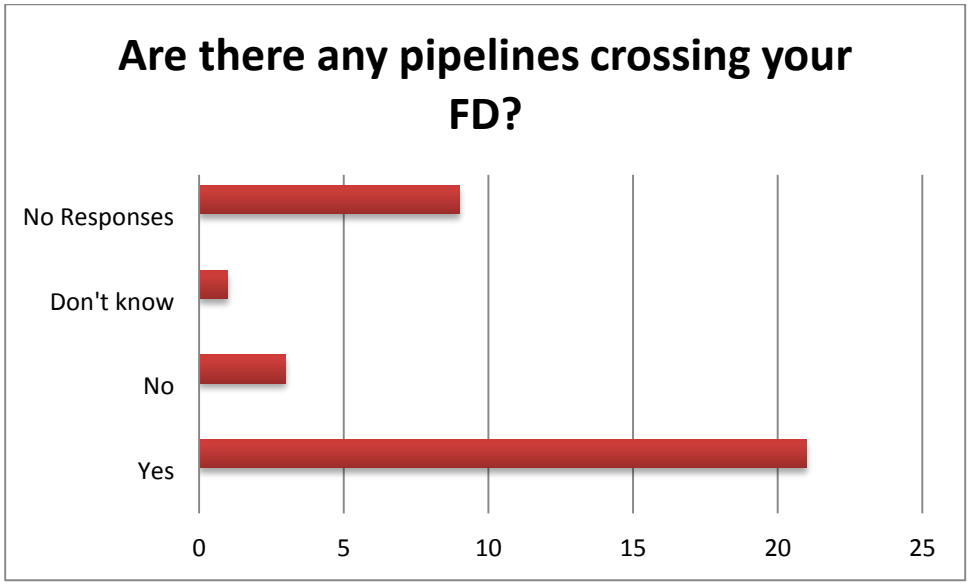


Can your department - on its own - handle this incident?		
	Number of Response(s)	**Response Ratio**
Yes, on our own	2	8%
Yes, but need backfill	8	32%
No, we don't have the resources	15	61%

Total	25	100%



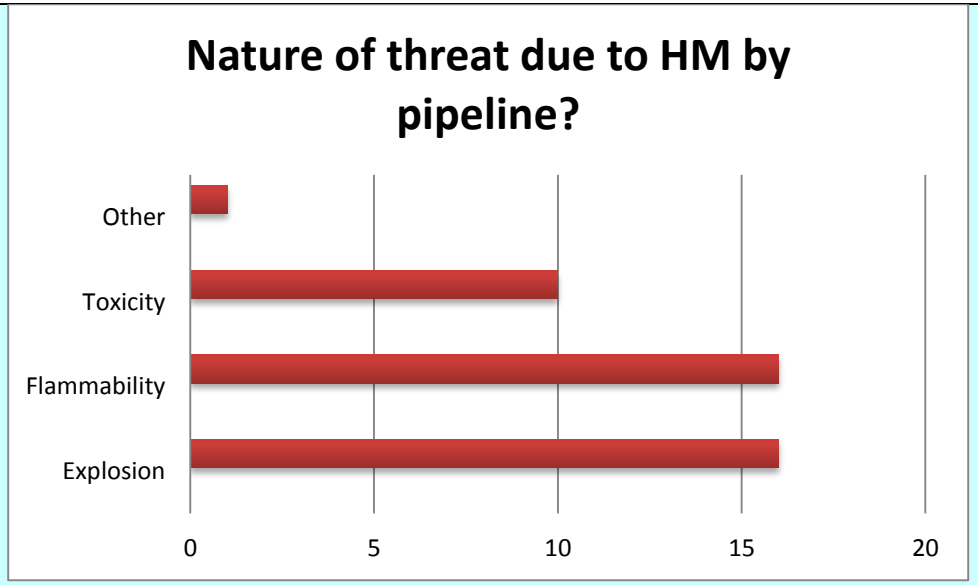
Are there any pipelines that cross your FD?		
	Number of Response(s)	**Response Ratio**
Yes	21	62%
No	3	9%
Don't know	1	3%

No Responses	9	26%	
Total	34	100%	

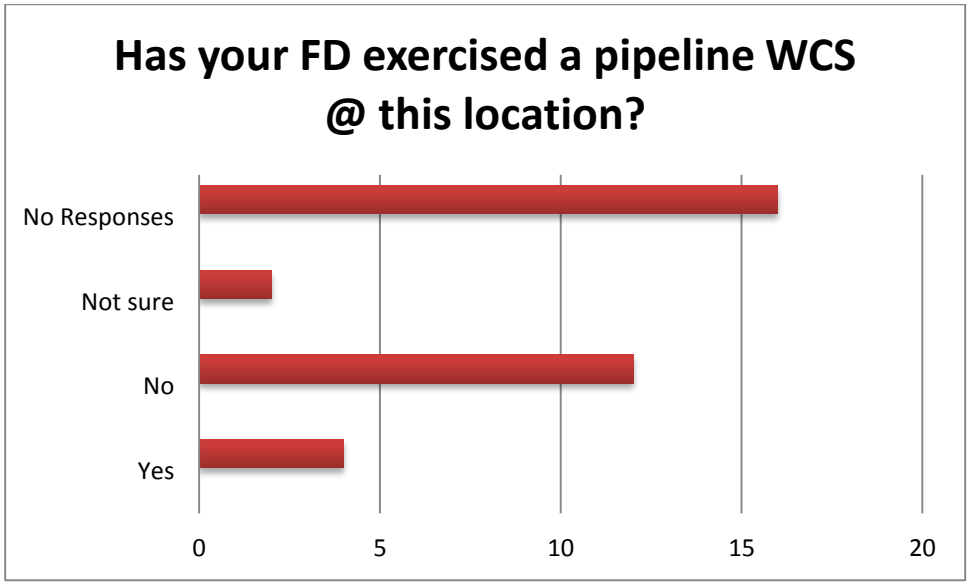
When you think of the pipelines that cross your district, keep in mind he one that represents the Worse Possible Scenario. Tell us 3 things: the name of the pipeline, the commodity being transported, and approximate location (along that pipeline) that would make this your worse possible scenario.

7 Response(s)

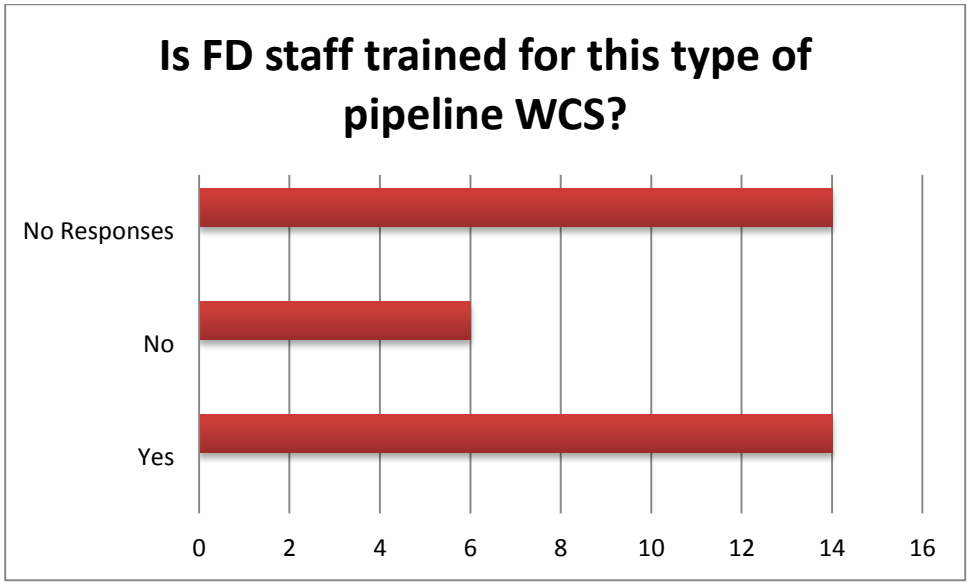
What is the nature of the threat transported via pipeline at this site?		
	Number of Response(s)	Response Ratio
Explosion	16	85.7%
Flammability	16	71.4%
Toxicity	10	42.8%
Other	1	0.0%
Total	20	100%



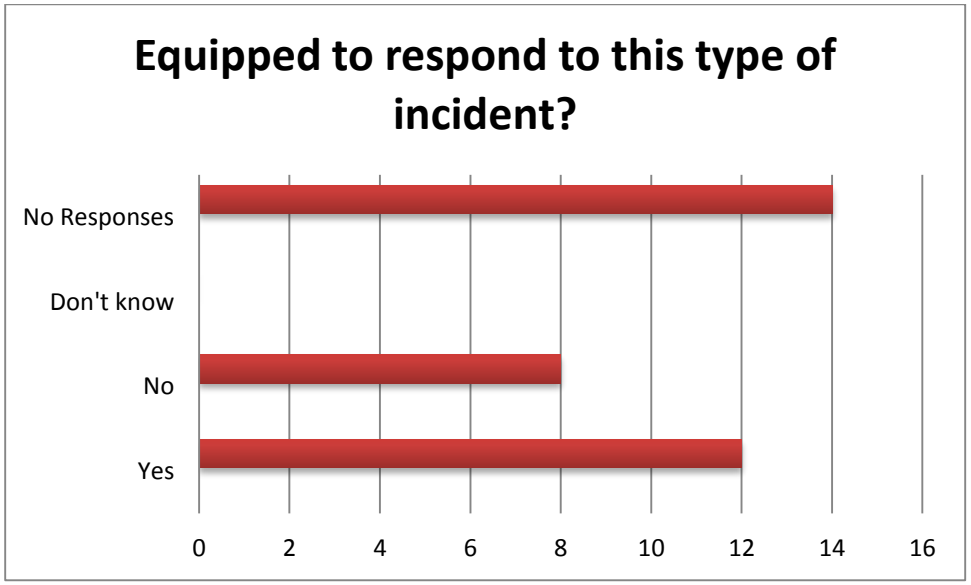
Has your FD exercised (tested) the response to a pipeline scenario of this type and at this location before?		
	Number of Response(s)	Response Ratio
Yes	4	12%
No	12	35%
Not sure	2	6%
No Responses	16	47%

Total	34	100%	

Is your FD staff trained to respond to this type of threat?		
	Number of Response(s)	**Response Ratio**
Yes	14	41%
No	6	15%
No Responses	14	41%

Total	34	100%	

Is your FD equipped to respond to this type of threat?		
	Number of Response(s)	**Response Ratio**
Yes	12	35%
No	8	24%
Don't know	0	0.0%
No Responses	14	41%

Total	34	100%	

Why is this particular site along or in proximity to the pipeline your greatest concern?

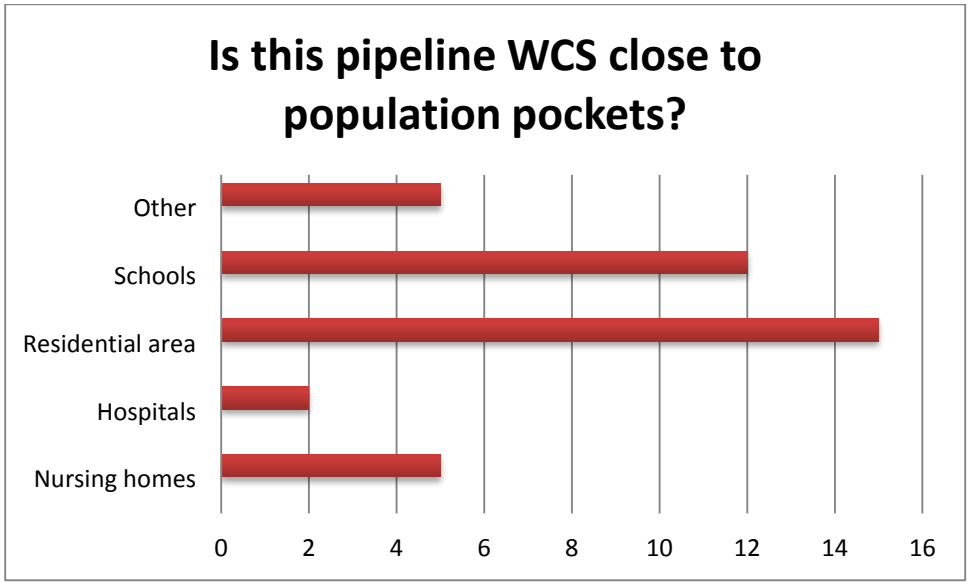
18 Response(s)

Is this pipeline location close to "population pockets"? Check those that are within a mile from the site:

	Number of Response(s)	Response Ratio
Nursing homes	5	26%
Hospitals	2	11%
Residential area	15	79%

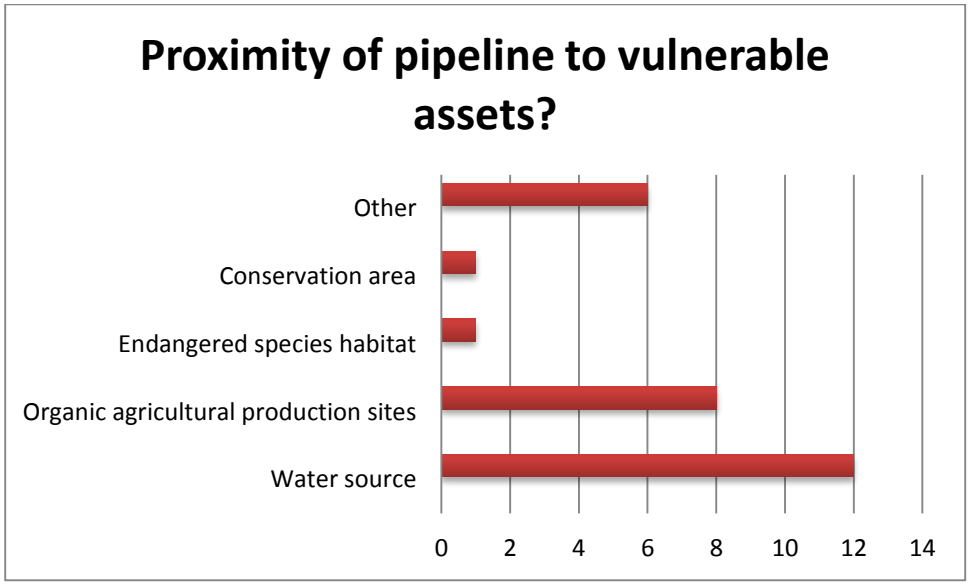
Schools	12	63%
Other	5	26%
Total	19	100%

12 Comment(s)



Is this pipeline location close to vulnerable assets? Within 1-2 miles from:		
	Number of Response(s)	**Response Ratio**
Water source	12	67%

Organic agricultural production sites	8	44%
Endangered species habitat	1	6%
Conservation area	1	6%
Other	6	33%
Total	18	100%

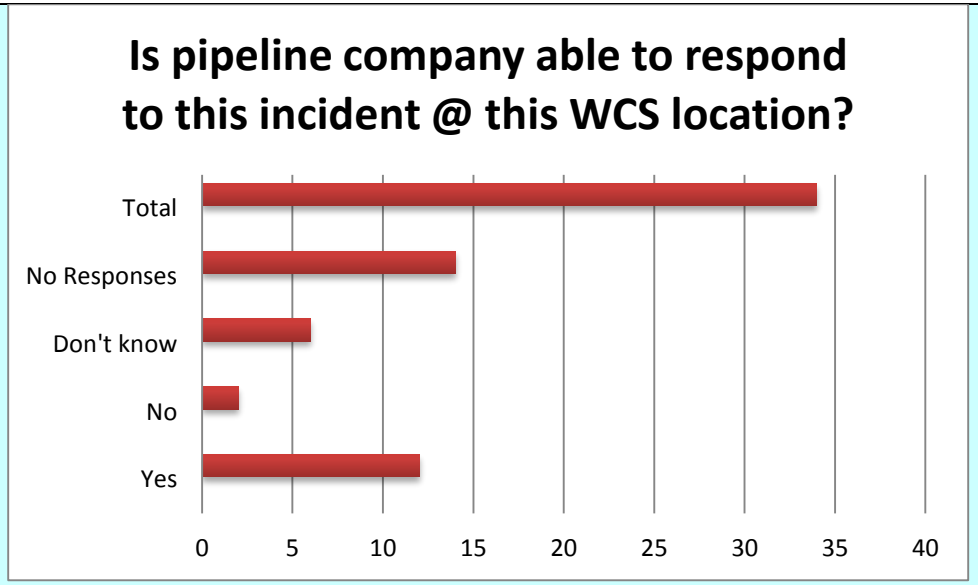


What is your estimated response time to that site?

20 Response(s)

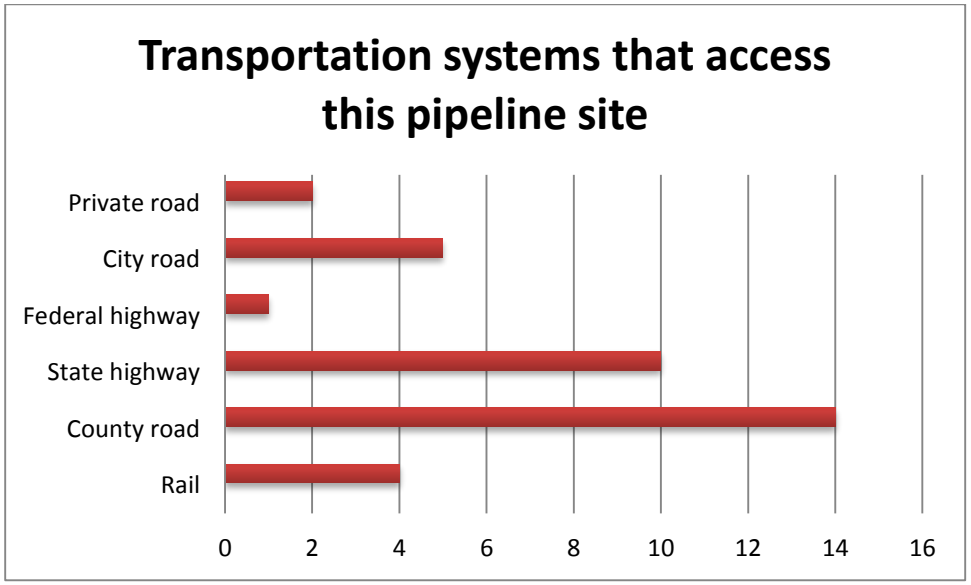
Does the pipeline company have the ability to rapidly and effectively respond to this incident at this location?		
	Number of Response(s)	**Response Ratio**
Yes	12	35%
No	2	6%
Don't know	6	18%
No Responses	14	41%
Total	34	100%

3 Comment(s)



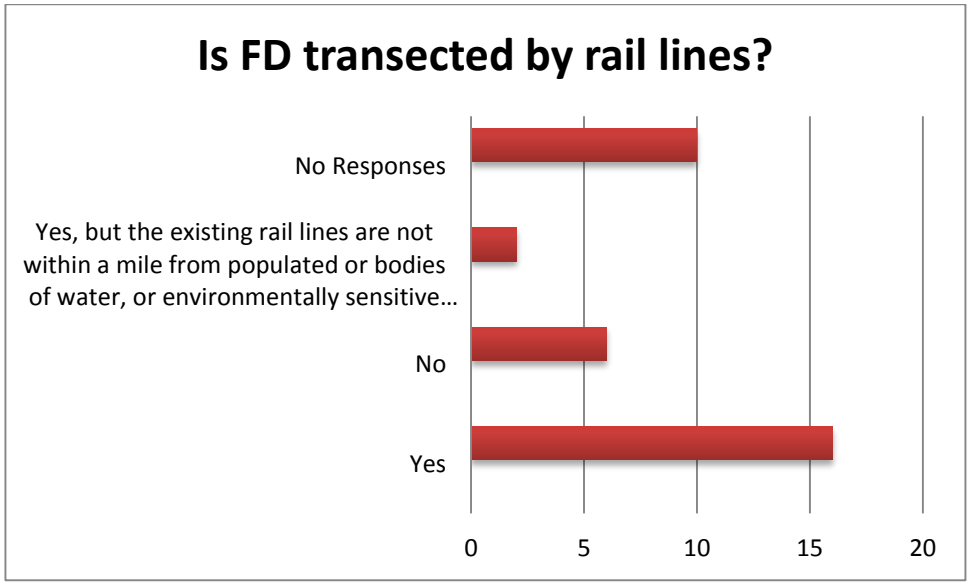
How is this site accessible? Identify all that apply:		
	Number of Response(s)	**Response Ratio**
Rail	4	20%
County road	14	70%
State highway	10	50%
Federal highway	1	5%
City road	5	25%
Private road	2	10%
Total	20	100%

3 Comment(s)



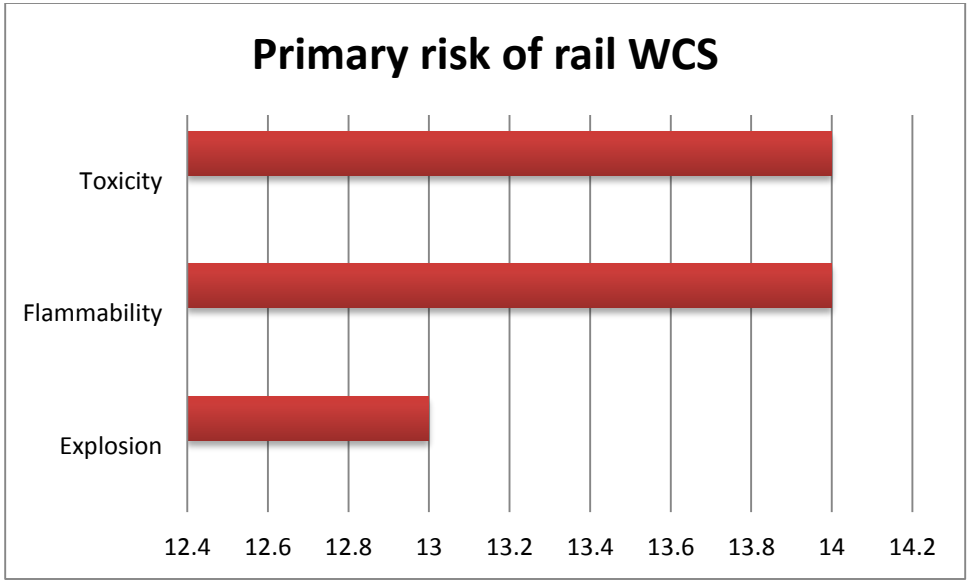
Are there any active rail lines in your FD?		
	Number of Response(s)	Response Ratio
Yes	16	47%
No	6	18%
Yes, but the existing rail lines are not within a mile from populated or bodies of water, or environmentally sensitive areas.	2	6%
No Responses	10	29%

Total	34	100%



What is the principal HazMat threat transported via rail in your FD? Tell us the name of the material in the comment line below

	Number of Response(s)	Response Ratio
Explosion	13	81%
Flammability	14	88%
Toxicity	14	88%
Total	16	100%



3 Comment(s)

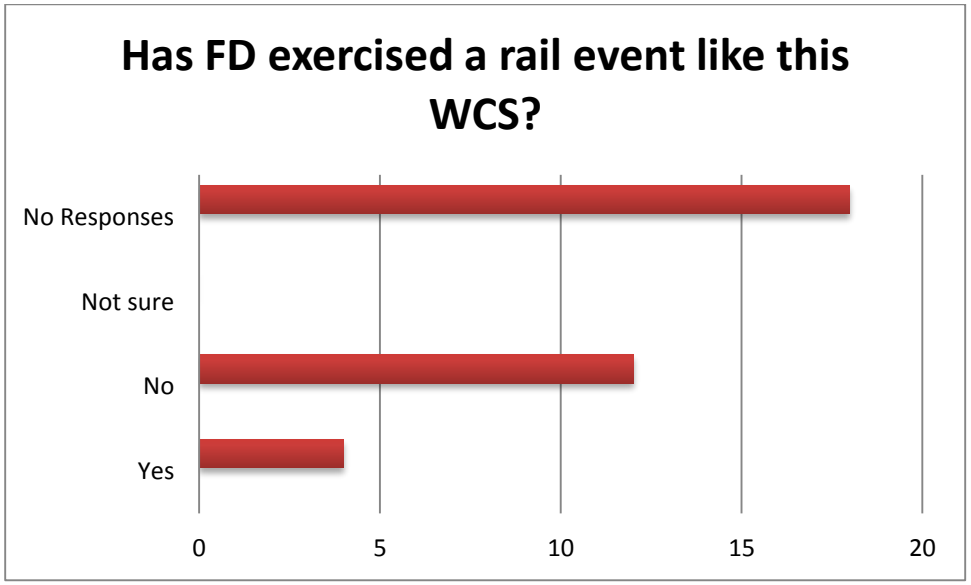
Considering your Worse Possible Scenario, tell us 1) the name of the rail company, and 2) the approximate location you have in mind.

16 Response(s)

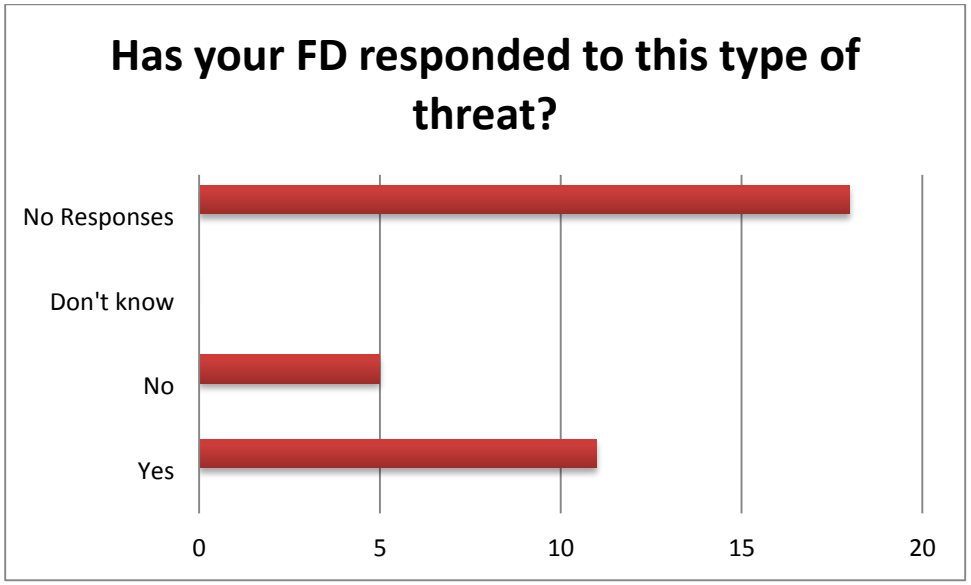
Has your FD exercised (tested) the response to a scenario like this before?

	Number of Response(s)	Response Ratio
Yes	4	12%
No	12	35%

Not sure	0	0.0%
No Responses	18	54%
Total	34	100%

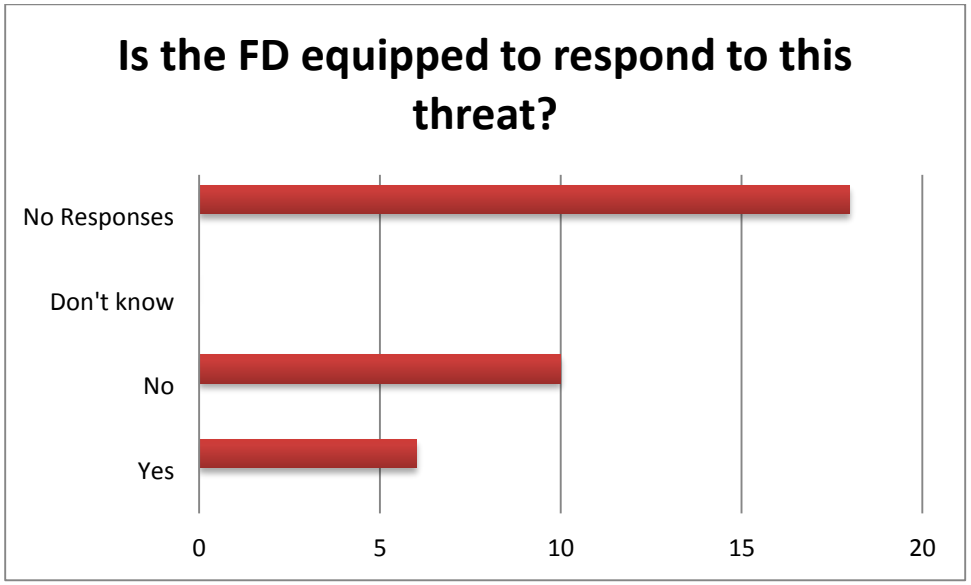


Is your FD trained to respond to this type of threat?		
	Number of Response(s)	**Response Ratio**
Yes	11	32%
No	5	15%
Don't know	0	0.0%
No Responses	18	53%

Total	34	100%	

Is your FD equipped to respond to this type of threat?		
	Number of Response(s)	**Response Ratio**
Yes	6	18%
No	10	29%
Don't know	0	0.0%
No Responses	18	53%

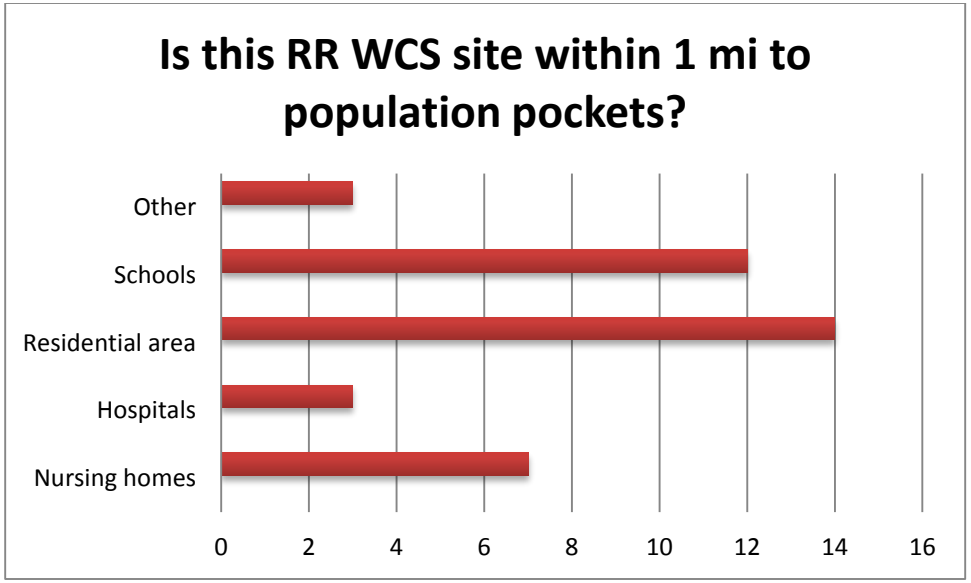
Total	34	100%



Is this site along the RR lines close to "population pockets"? Check those that are within a mile from the site:

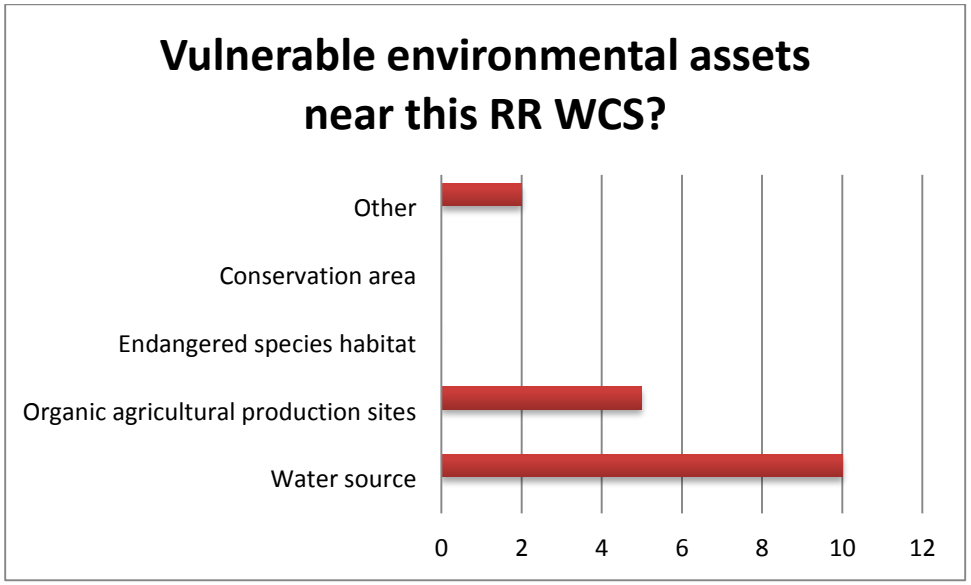
	Number of Response(s)	Response Ratio
Nursing homes	7	44%
Hospitals	3	19%
Residential area	14	19%
Schools	12	75%
Other	3	19%
Total	16	100%

9 Comment(s)



Check any vulnerable assets within 1-2 miles from the site:		
	Number of Response(s)	Response Ratio
Water source	10	77%
Organic agricultural production sites	5	38%
Endangered species habitat	0	0.0%
Conservation area	0	0.0%
Other	2	15%

Total	13	100%

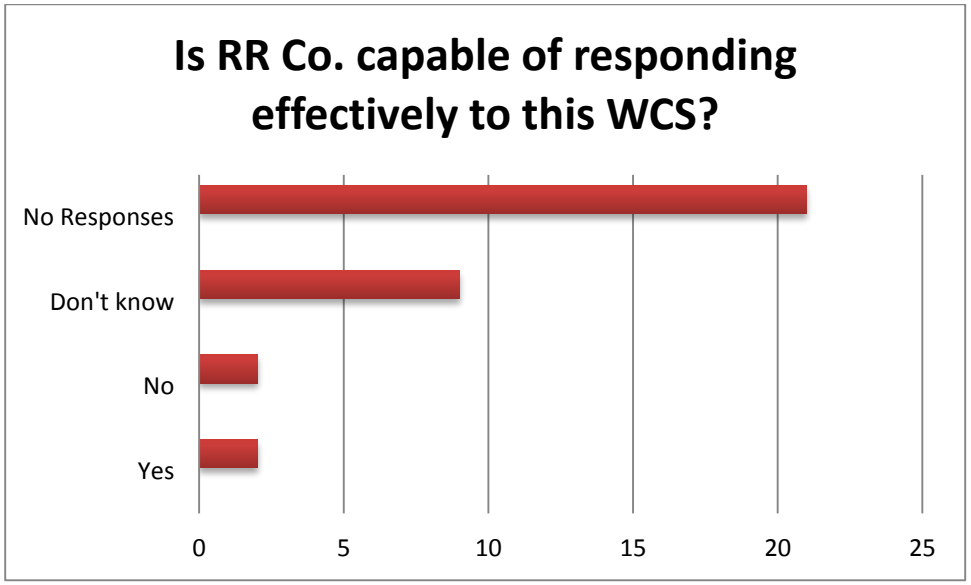


What is your FD estimated response time to the site?

16 Response(s)

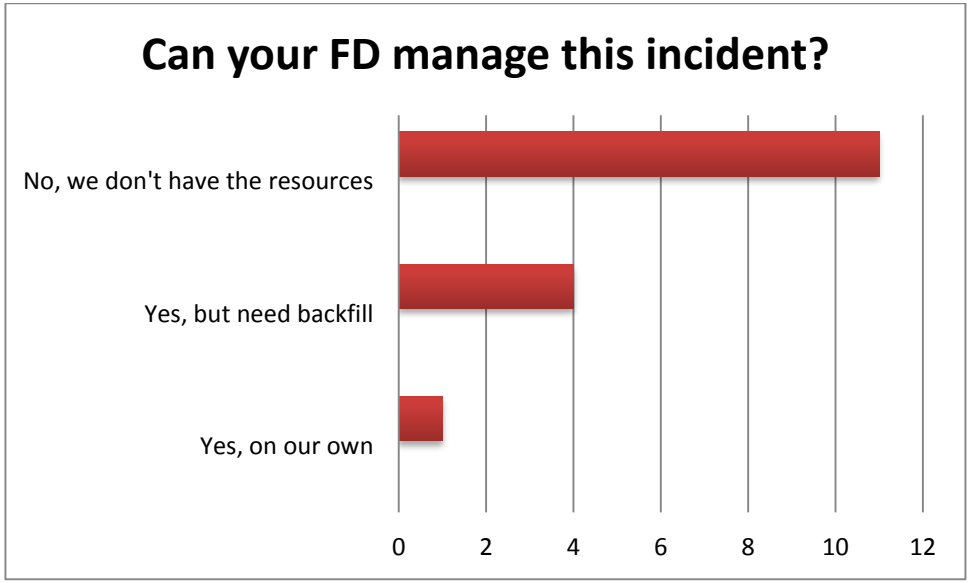
Does the rail company have the ability to rapidly and effectively respond to an incident at this site?

	Number of Response(s)	Response Ratio
Yes	2	0.0%
No	2	0.0%
Don't know	9	27.2%
No Responses	21	72.7%

Total	34	100%	

Can your department handle this incident?		
	Number of Response(s)	**Response Ratio**
Yes, on our own	1	6%

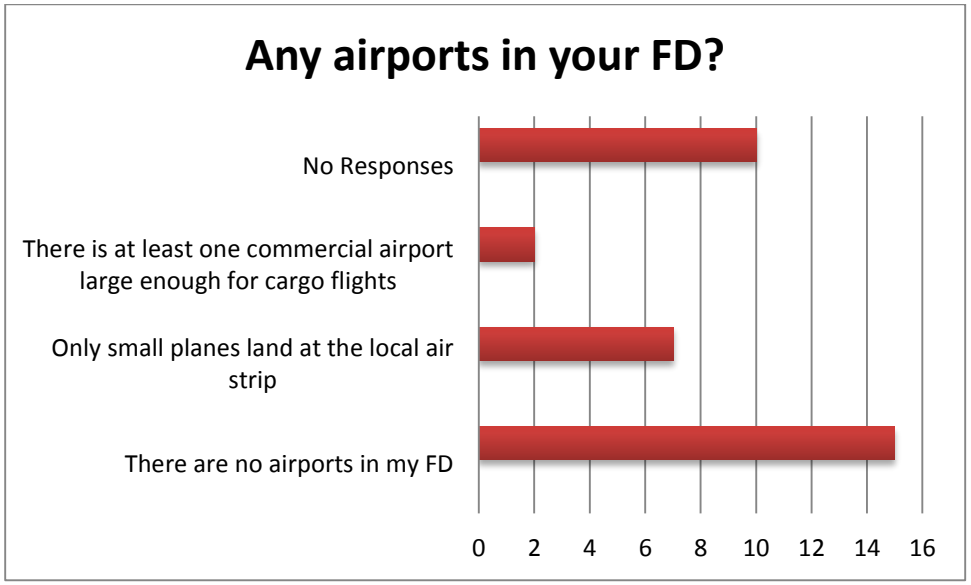
Yes, but need backfill	4	25%
No, we don't have the resources	11	69%
Total	16	100%



Are there airports in your FD? What kind of traffic do they have?

	Number of Response(s)	Response Ratio
There are no airports in my FD	15	44%
Only small planes land at the local air strip	7	21%
There is at least one commercial airport large enough for cargo flights	2	6%

No Responses	10	29%
Total	34	100%

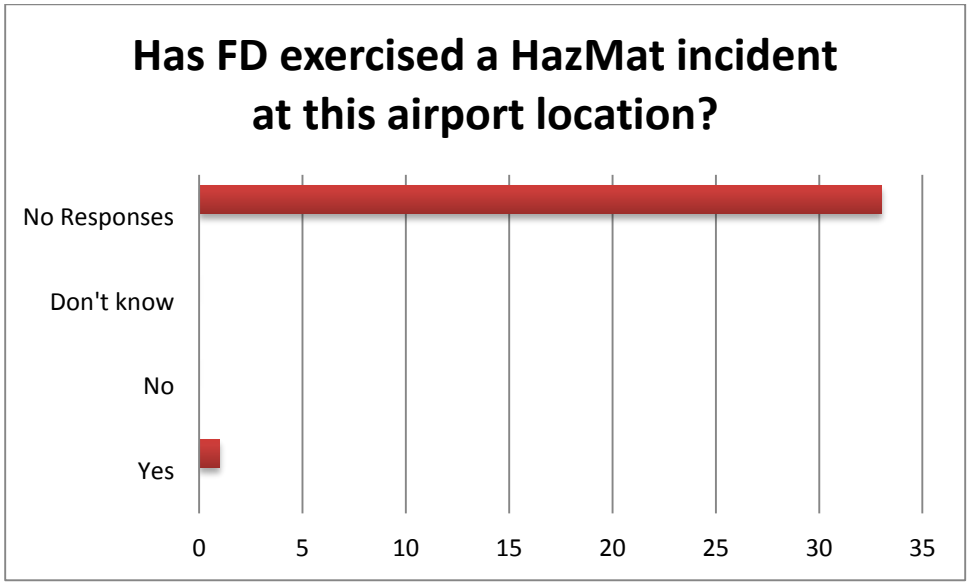


Give us 1) the name of the airport you are using for this scenario, and 2) its address.

2 Response(s)

Has your FD exercised a HazMat incident at this location before?

	Number of Response(s)	Response Ratio
Yes	1	3%
No	0	0.0%
Don't know	0	0.0%
No Responses	33	97%

Total	34	100%	

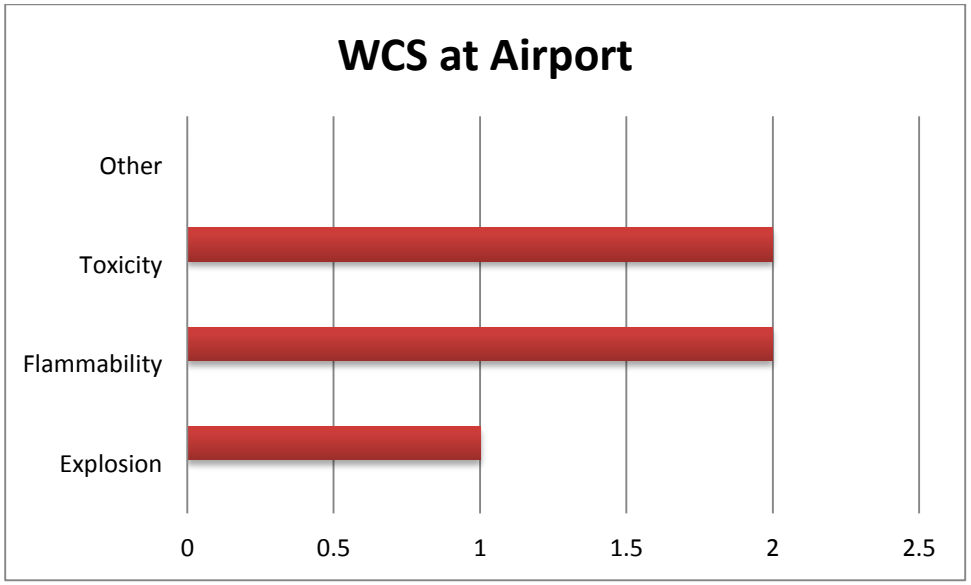
What is the most likely HazMat you expect is transported by air to/from this airport?

1 Response(s)

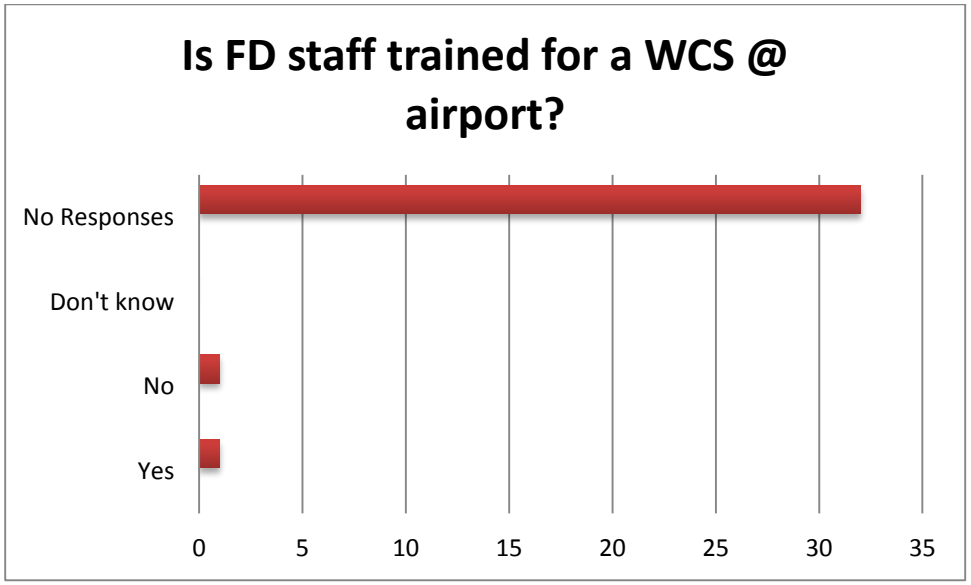
What is the threat for a Worse Case Scenario at this airport?

	Number of Response(s)	Response Ratio
Explosion	1	50.0%
Flammability	2	100.0%
Toxicity	2	100.0%

Other	0	0.0%
Total	2	100%

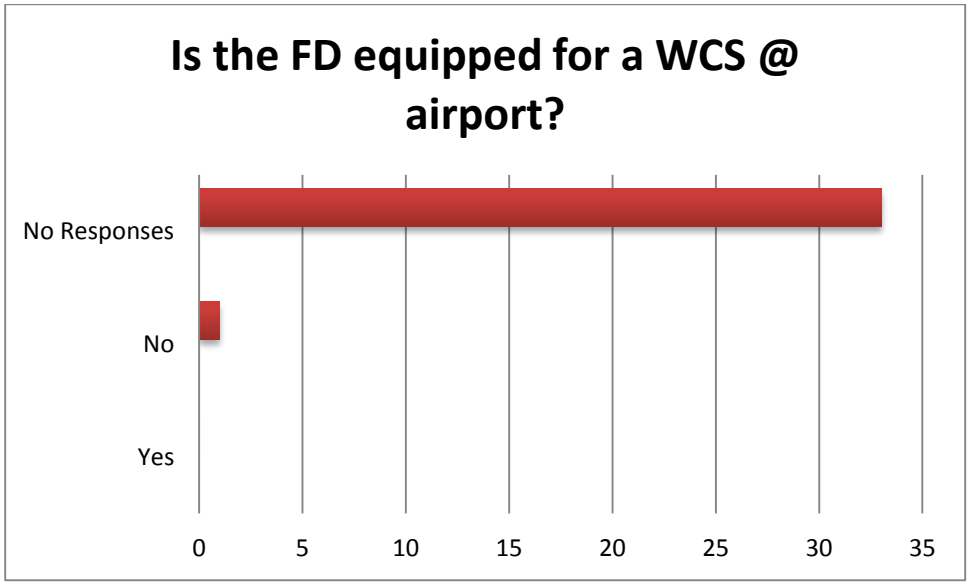


Is your FD staff trained to respond to this type of threat?		
	Number of Response(s)	**Response Ratio**
Yes	1	3%
No	1	3%
Don't know	0	0.0%
No Responses	32	94%

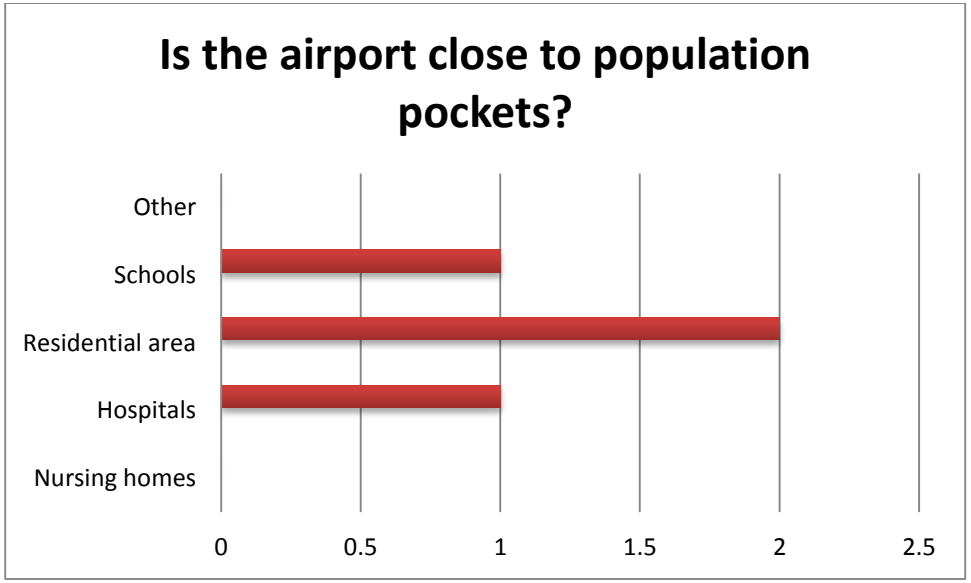
Total	34	100%	

Is your FD staff equipped to respond to this type of threat?		
	Number of Response(s)	**Response Ratio**
Yes	0	0.0%
No	1	3%
No Responses	33	97%

Total	34	100%	

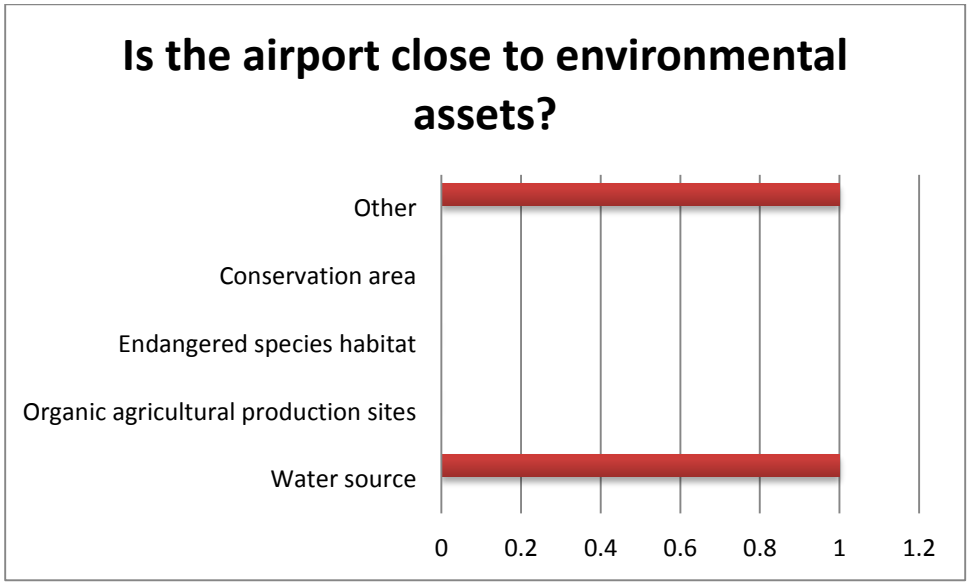


Is this airport close to "population pockets"? Check those that are within a mile from the site:		
	Number of Response(s)	**Response Ratio**
Nursing homes	0	0.0%
Hospitals	1	50.0%
Residential area	2	100.0%
Schools	1	50.0%
Other	0	0.0%
Total	2	100%



2 Comment(s)

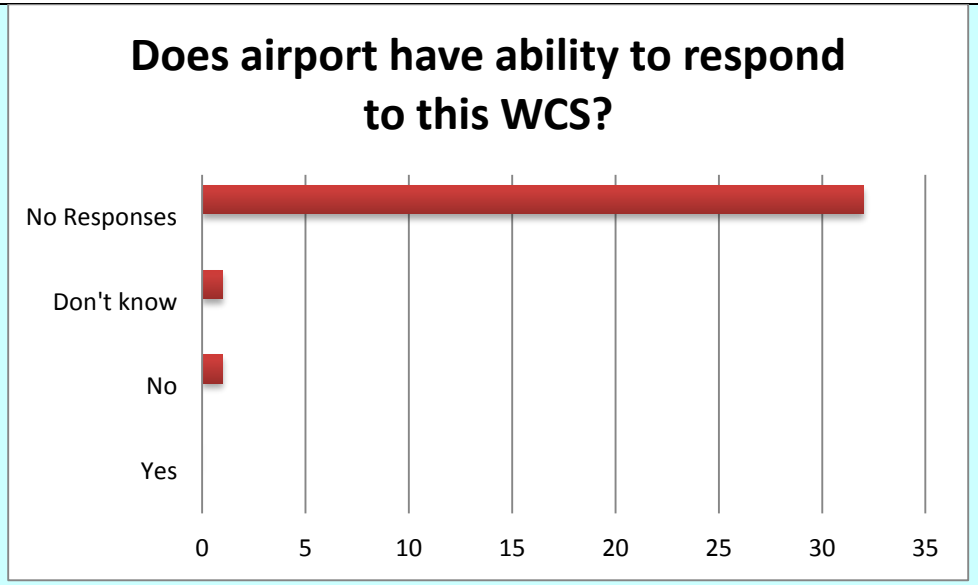
Check any vulnerable assets within 1-2 miles from this airport:		
	Number of Response(s)	Response Ratio
Water source	1	50.0%
Organic agricultural production sites	0	0.0%
Endangered species habitat	0	0.0%
Conservation area	0	0.0%
Other	1	50.0%

Total	2	100%	

What is your FD estimated response time to the airport?

2 Response(s)

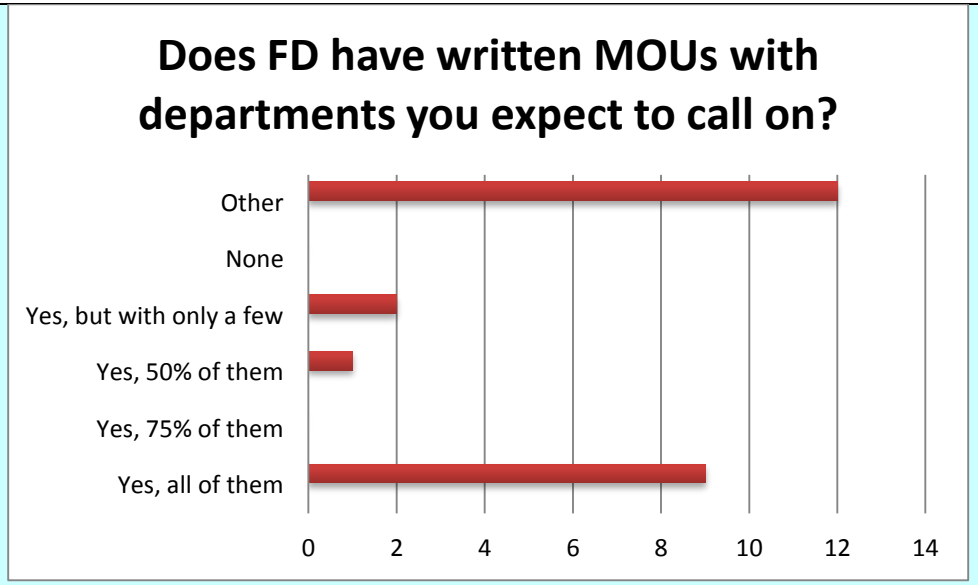
Does the airport have the ability to rapidly and effectively respond to an incident at this site?		
	Number of Response(s)	**Response Ratio**
Yes	0	0.0%
No	1	3%
Don't know	1	3%
No Responses	32	94%
Total	34	100%



List the fire department(s) you expect to call for mutual aid for support to the incidents identified above.

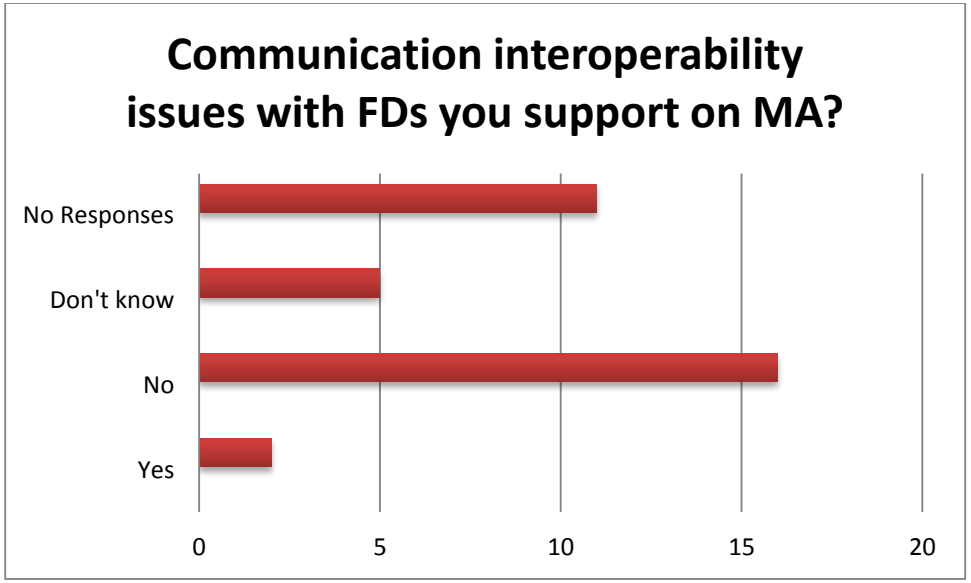
23 Response(s)

Do you have written mutual aid agreements with the departments you listed?		
	Number of Response(s)	**Response Ratio**
Yes, all of them	9	39%
Yes, 75% of them	0	0.0%
Yes, 50% of them	1	4%
Yes, but with only a few	2	9%
None	0	0.0%
Other	12	52%
Total	23	100%



Have you experienced communications interoperability problems with departments that provide you mutual aid?		
	Number of Response(s)	**Response Ratio**
Yes	2	6%
No	16	47%
Don't know	5	15%
No Responses	11	32%
Total	34	100%

7 Comment(s)


Communication interoperability issues with FDs you support on MA?
No Responses
Don't know
No
Yes
0
5
10
15
20

[i] In 2013, the Kansas Division of Emergency Management requested county input for a state-level project. The effort was highlighted in an article included in last year's November issue of the LEPC Ledger, http://www.kansastag.gov/kdem.asp?PageID=177. That article explained that "The Kansas Critical Infrastructure Working Group is in the process of updating the Kansas Critical Infrastructure Protection Plan and Kevin Diers from KDEM will be contacting the local Sheriff's, Emergency Managers, Fire Departments and LEPCs for input. An outline, of criteria will be provided to identify the critical infrastructure in each county. Kevin says "I believe the best way to know what's in each county and the best way to identify their critical infrastructure is to go to those that live and operate in those counties." If anyone has any questions or concerns please contact Kevin at kevin.l.diers2.mil@mail.mil"