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Region 6 LEPC Update

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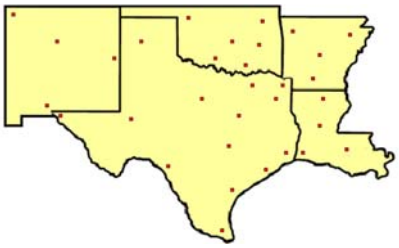
In this issue, we bring you the close of the 2014 LEPC Workshop Tour, the 4th installment from Bob Campbell on risk assessment guidance, crude oil lessons learned from the Gulf Strike Team, CAMEO training opportunities, and ideas for HazMat training from Fred Cowie. -Steve and Hilary

LEPC Region 6 Workshop Tour 2014



32 workshop locations across Region 6

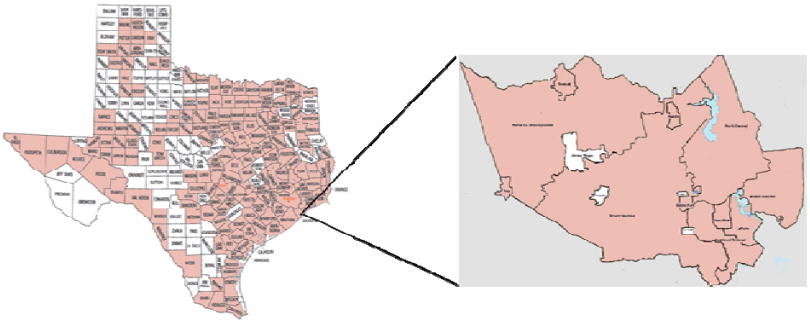
The LEPC work shop tour came to a close in September, wrapping up with 15 locations visited throughout Arkansas, Texas, and Oklahoma in August and September. That's a grand total of 32 workshops throughout Region 6 since May. A big "Thank You" to all of the locals who came forward and offered to host, and to the 1,350+ representatives of local, state, federal government, and industry representatives who came and shared their valuable input and perspectives. Approximately 372 of 519 LEPC's within Region 6 were represented at the workshops - **that's 72% of the LEPCs in our region!**

50 / 75 LEPCs Represented

57 / 64 LEPCs Represented

20 / 33 LEPCs Represented

63 / 77 LEPCs Represented



182 / 270 LEPCs Represented (11 in Harris County)

LEPC Region 6 Workshop Tour 2014

Thank you to those of your who emailed Steve with thanks, feedback, and suggestions. Steve has compiled all the comments, and has submitted them to EPA Headquarters. This is valuable feedback that will hopefully build a case to provide funding to hold these workshops again next year – with a fresh and updated agenda.

Slides for the PowerPoint presentations presented at the workshops are available at:

www.epaosc.org/lepcworkshops

(Unfortunately, great stories and lessons learned were available only at the past live sessions)

Thank you to all the locals who offered to host, worked to find us fantastic training facilities, and shared your local flavor!

Chris Guilbeaux, LA-GOHSEP	Bonnie McKelvey, OK OEM	Bernardine Zimmerman, TXDSHS	Susan Walker, NM DHSEM	Kenny Harmon, ADEM
Gene Dunegan, LSP	Monty Elder, ODEQ	Kevin Starbuck, Potter/Randall County OEM	David Almaguer, Dona Ana County OEM	Chris Foreman, ADEM
Kathryn McCoy, LA-GOHSEP	Tom Bergman, ODEQ	Chip Orton, Potter/Randall County OEM	Chief Pablo Padilla, Del Rio OEM	Chief Clark Wilkerson, Bentonville FD
Patricia Richardson, LEPC Calcasieu Parish	Tracy Bender, OK OEM	Capt. Ricardo Gonzalez, El Paso FD	Fernando Perez, TDEM	Bobby Braswell, Union County OEM
Christina Dayries, LA-GOHSEP	Linda Pryor, OK OEM	Luz Elda Sanchez, El Paso FD	Fred Beversdorf, ATMOS Energy	Jacksonville FD
Kevin Davis, LA-GOHSEP	Chuck Kerns, OK OEM	Chief Scott Calderwood, El Paso OEM	Lorinda Callahan, ATMOS Energy	Craighead County OEM
Theresa Basco, LA-GOHSEP	Harry Trottier, OK OEM	Veronica Aldana, Freeport-McMoran	Chris Forsyth, NCTOG	Mary Beth Rudel, Ark-Tex COG
Doug Zettlemoyer, LA-GOHSEP	Sam Talamantez, OK OEM	Marisa Quintanilla, Rio Grande COG	Dan Heerding, Curry County OEM	Amber Thurston, Ark-Tex COG
Pam Roussel, LA-GOHSEP	Gerald Kolb, OPAL	Chief Sam Jordan, Odessa FD	Don Cooper, San Juan County LEPC	Oren Hale, Smith County Fire Marshal's Office
Joe Stewart, LA-GOHSEP	Denise Story, OPAL	David Crymes, Taylor County LEPC	Michael Rose, NM DOH	Sean Taylor, McLennan County OEM
Mark Hawkins, Haz Mat Services/ Bowie County LEPC	Steven O'Neal, Rentsys/Brazos County LEPC	Preston Doege, Travis County Haz Mat	Claudia Lozano, TCEQ	Frank Patterson, McLennan County OEM
Linda Shaw, Haz Mat Services, Inc	Greg Fountain, Jefferson County OEM	Robert Hemminger, Pasadena OEM/Southeast Regional LEPC	Malcolm Swinney, Deer Park LEPC	Bill Zagorski, San Patricio County OEM
Steve Childers, Haz Mat Services, Inc	Paisley Robards, Weston Solutions	Rebecca Ayres, Weston Solutions	David Wade, Harris County OHSEM	Missy Beck, San Patricio County OEM

Preparing Communities through All-hazards Planning and Analysis: Phase IV – Developing Emergency Response Procedures

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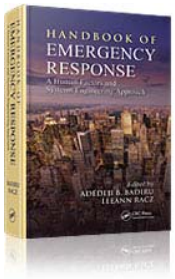


About the Author: Bob Campbell has been preparing communities as a responder and consultant for the last 18 years. After founding ASG in 2005, he has overseen the development of all-hazards plans with emphasis on hazardous materials in over 60 communities. ASG has conducted over 2,000 hazardous material response exercises while supporting 760 locations world-wide. Bob leads ASG with a focus on capturing and sharing lessons learned, best practices and case studies to improve community preparedness. He is a contributing author in the recently released book "Handbook of Emergency Response: A Human Factors and Systems Engineering Approach."

Over the last year, I have outlined a proven model for how communities can conduct all-hazards planning using a comprehensive, risk-based method. This has been used in over 60 communities around the US ranging from small, rural areas to large metropolitan areas. The model is based on four key steps: (1) identifying the hazards; (2) assessing the risks; (3) managing the risks and (4) developing emergency response procedures. My last article tackled the third step in the method – *risk management*. This article outlined various examples of how to prepare for technological risks through prevention and mitigation measures. These practical examples emphasized the whole community approach to risk management. This final article will focus on specific procedures and administrative aspects to ensure an effective emergency response plan.

Developing Emergency Response Procedures

One of the greatest challenges to producing a hazardous material emergency response plan is ensuring that the plan is interoperable with other community plans (e.g., emergency operations plan, pre-fire plans, facility plans, etc.). Facilities are required by EPA, OSHA, and DHS to develop different plans, containing many of the same elements, and satisfy each of these regulatory bodies. Even under a single regulatory agency there are different laws (e.g., Clean Air Act, Oil Pollution Prevention, Emergency Planning and Community Right to Know Act, etc.) that drive different types of plans (e.g., Risk Management Plan, Spill Prevention, Control and Countermeasures, Emergency Response Plans, Contingency Planning). Fortunately, EPA published guidance allowing facilities to produce an Integrated Contingency Plan in order to satisfy the multitude of environmental regulatory requirements. EPA requires LEPCs under EPCRA to develop a community emergency response plan. Because many of the required elements of this plan are covered in other plans (e.g., notification procedures, evacuation routes, description of emergency response procedures, etc.), it is important for the LEPC to review and integrate the emergency response plan with existing plans to ensure interoperability and avoid potential conflicts among the various plans. Additionally, community planners will find it much easier to update procedures and administrative information in one plan than in multiple plans. This article will address some of the ways LEPCs can use the planning process to ensure interoperability while complying with EPCRA.

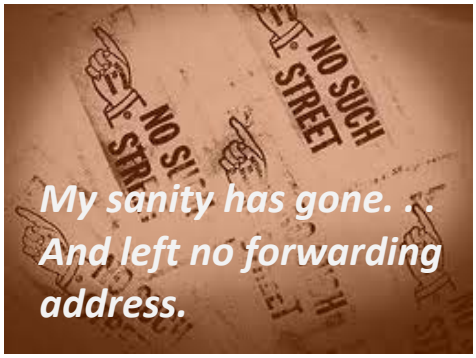
There are three common approaches to meeting the EPCRA emergency response plan requirement:

(1) Develop a stand-alone emergency response plan

(2) Embed the plan in the ESF 10 Oil and Hazardous Materials Response annex to the EOP

(3) Attach the plan as an appendix to the EOP

Regardless of the approach taken in your community, it is important to ensure interoperability and establish solid cross-references to the required procedures. Many communities utilize a crosswalk or checklist to demonstrate that they have satisfied the EPCRA planning requirements. One example is provided at the end of this article. The rest of this article will highlight how this plan can be integrated into the EOP while ensuring interoperability.



Administrative Information

EPCRA requires that emergency response plans contain contact information for relevant parties. Contact information for emergency management officials, first responders, critical infrastructure, hospitals, schools, vulnerable facilities/population centers, translators, and hazardous material facilities (local contacts, not corporate headquarters which is often the case) must be included and verified annually for accuracy. To facilitate accessibility to this information, it is helpful to cross-reference the location where each of these contacts may be located within the EOP. Based on the method outlined in the "Identifying Hazards" article, facility points of contact information should be located with the facility inventory; this may be located in an appendix to the emergency response plan. Since many of these points of contact are listed elsewhere in the plan, it's important to identify who is responsible for maintaining the contact list and verifying accuracy. In rural communities, the contact information may lead to a home or cell phone of an individual, not an office. We have found that in some cases, the person referenced in the plan retired, moved or was deceased. There is no substitute for calling the number and verifying that the person who answers is the correct point of contact.

Notification Procedures

1-800-424-8802

Timely notification of a hazardous material release is critical to ensuring swift and effective implementation of protective actions. These procedures can be confusing, ill-defined and duplicative in some communities. Due to the myriad of regulations affecting facilities where releases may occur there are numerous reporting requirements (e.g., 911, local emergency manager, state environmental department, national response center, etc.) making it easy to neglect other entities that also need the notification. In one community, we found that facilities had 4 hours to notify the state environmental department, but 24 hours to notify local emergency management. It is important to review local, state and facility plans and procedures to ensure consistency in reporting times and completeness. Planners can help ensure that these procedures are timely, effective and compliant as well as logical. This step can often be the limiting factor in responding effectively.

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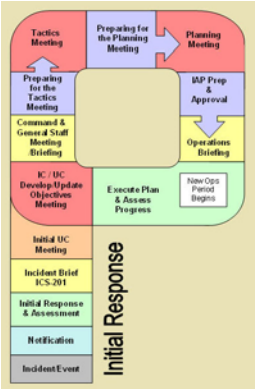
The EOP most likely addresses general notification procedures but not those specific to hazardous material facilities. Therefore, the emergency response plan should specifically outline notification procedures from industrial facilities to the correct emergency response and coordinating agencies.

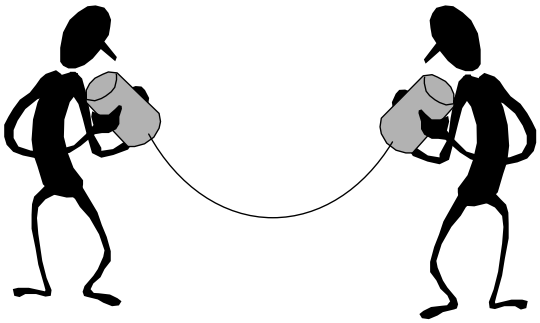


Planning Elements for Response Support

Upon notification of an incident at a facility, emergency managers at the EOC, hazardous material response teams and facility-based managers/responders should have ready access to the same information so that additional resources can be coordinated and directed to the scene in support of the IC upon request.

Second, the EOC should be prepared to coordinate and implement public protective actions through mass notification networks. This is where consistent planning will aid in delivering a coordinated response. A comprehensive emergency response plan contains a list of the hazards and their quantity stored on site. It is a **best practice** to maintain a library of plume models and explosive overpressure distances for the hazardous materials stored on site that matches this list. These can be used to supplement information found in the Department of Transportation's Emergency Response Guide (ERG). This information enables swift decision-making once the extent of the incident is determined. It also aids the IC in determining the size of the cordon and safely locating the Incident Command Post and Staging area.

Third, responders and facility personnel often have incorrect assumptions about who is responsible for response activities when there is an incident. It is important to compare facility plans and assumptions with community plans and assumptions. While the facility is legally and financially responsible for the activities at their facility, emergency managers are responsible for preparing the community and responders for incidents that may not be "contained" at the facility which may affect the community. Therefore, it is important to define the interface between facility personnel and first responders during incidents. The planning process provides an excellent time to have these discussions and understand each entity's capabilities. Furthermore, table top and functional exercises are also helpful in enhancing coordination and identifying gaps in the various plans and assumptions.



Finally, pre-fire plans for each facility (when completed in accordance with NFPA 1620, Standard for Pre-incident Planning) ensure that first responders optimize situational awareness, arrival to the scene and scene size up procedures. Community planners and responders maximize the probability of a successful response when both entities have access to consistent, comprehensive information about the hazards within the community.

Public Protective Actions

Upon size up of an incident, the IC will determine if any public protective action, such as evacuation or shelter-in-place, is needed to protect the population at risk. Shelter-in-place is generally implemented when the release or spill has occurred and the concentration of the hazard is dissipating with time. Studies have shown that this measure is effective for 2-3 hours, but due to structural "leaks" the hazard may seep into the building through cracks and may eventually exceed the concentration of the hazard outside of the building. Evacuation is generally implemented when the release of the hazard is ongoing and the risk of exposure inside of the buildings is greater than the risk of exposure during evacuation. Planners should consider several factors such as the toxicity of the substance, duration of evacuation/exposure, special needs populations and the availability of accessible evacuation routes. The previous article in this series, Risk Management, recommended the use of a DHS-validated, online tool called Real-time Evacuation Planning Model (RtePM) - http://rtepm.vmasc.odu.edu to aid in pre-incident planning. The keys to these public protective actions are (1) swift decision-making enabled by a comprehensive emergency response plan, (2) effective, actionable mass notification procedures, and (3) public awareness of the notification and implementation procedures.

Mass Notification

Standard EOPs should already address mass notification procedures in the context of traffic accidents, natural disasters, weather emergencies, and other scenarios. So the hazardous material emergency response planners need to review these procedures, ensure they are practical and integrate them with the hazardous material incident procedures. Some of the unique aspects of a hazardous material incident include the following:

(1) Generally contained to a geographic area around a facility;

(2) Sometimes involves warning properties such as taste, odor, or physiological effects such as burning eyes, lacrimation, etc.;

(3) May present multiple hazards along with the primary hazard such as explosivity, reactivity, oxygen displacement.

Therefore, planners must account for these items in the mass notification procedure. Some communities have utilized opt-in notification and reverse-911 systems based on a GIS-enabled area in addition to traditional methods such as radio, television and sirens. With the onset of the smartphone and widespread use of social media, emergency managers must engage in both monitoring social media for resident reports to supplement situational awareness but also utilize social media to broadcast information and advisories in real time.

Next, the message must contain relevant information such as warning signs and indications of the hazard, preventive and protective actions (e.g., evacuation and shelter locations, shelter-in-place procedures, avoid low-lying areas). Planners must also take a whole community approach. This ensures that all responders, receivers and effected populations are included in the process. Planners must develop procedures to account for special needs residents, the elderly, infirm and those who speak languages other than English. **Best practices** include: pre-drafting relevant public notices for evacuation, shelter-in-place and fact sheets about the hazards that exist in the community for use by public information officers.

Planners should periodically test these notification systems to measure their effectiveness and ensure the citizens are aware of notification procedures and what actions to take when they are notified.

Recovery

Community planners can pre-identify resources and procedures by determining some of the time-sensitive tasks that may be necessary upon transition from response to recovery. While responsibility for cleaning up spills and releases belongs to the facility responsible for the release, this may not occur quickly enough to prevent further migration of the hazard. Therefore, the community should be prepared to call in experts with experience in spill response, clean up and restoration. A listing of these resources (e.g., contractors, equipment and supplies) aids community planners with the transition from response to recovery. Depending on local contracting requirements, the local contract/procurement office may issue a "sources sought" notice to identify these sources. **Best Practice:** Some communities establish a blanket purchase agreement with these firms so that in case their services are needed, the contracting mechanism is already established and will not delay issuing a task order and conducting the work. Finally, planners should identify a "recovery working group" with the responsibility to evaluate the impact on the community and address damages and restoration. By addressing these procedures within the plan, community planners will ensure a smooth transition to recovery and lessen the impact of the incident and time it would otherwise take to complete the recovery transition.

Conclusion

Community planners have the responsibility of developing whole community plans that address all-hazards. The numerous plans throughout the community, both private and public sector, may complicate this task due to redundant or mismatched procedures. Effective planning enables the whole community to prepare for all-hazards and develop consistent procedures. Including hazardous material specific procedures in the emergency response plan and integrating these procedures within the EOP ensures interoperability among public agencies and the community.

Does your plan meet the minimum requirements under EPCRA?

Consult the checklist on the following page

MINIMUM EPCRA REQUIREMENTS FOR LOCAL HAZMAT PLANS

Locality:

PLAN REQUIREMENT	YES	NO
Identifies facilities within the EPD that are subject to EPCRA [Sec.303 (c) (1)]	☐	☐
Identifies routes likely to be used for transportation of hazmat [Sec.303 (c) (1)]	☐	☐
Identifies additional facilities contributing or subjected to additional risk due to proximity to facilities (i.e. hospitals, natural gas facilities, etc.) [Sec.303 (c) (1)]	☐	☐
Methods and procedures to be followed by facility owners and operators and local emergency and medical personnel to respond to hazmat releases [Sec.303 (c) (2)]	☐	☐
Designation of a community emergency coordinator and facility emergency coordinators who will implement the plan [Sec.303 (c) (3)]	☐	☐
Procedures providing reliable, effective and timely notification by the facility emergency coordinators and the community emergency coordinator to persons designated in the plan and to the public, that a hazmat release has occurred [Sec.303 (c) (4)]	☐	☐
Methods for determining the occurrence of a hazmat release and the area or population likely to be affected by the release [Sec.303 (c) (5)]	☐	☐
Description of emergency equipment and facilities in the community and at each facility [Sec.303 (c) (6)]	☐	☐
Identification of persons responsible for emergency equipment and facilities [Sec.303 (c) (6)]	☐	☐
Evacuation plans, including provisions for precautionary evacuation and alternative traffic routes [Sec.303 (c) (7)]	☐	☐
Training programs, including schedules for training of local emergency response and medical personnel [Sec.303 (c) (8)]	☐	☐
Methods and schedules for exercising the emergency plan [Sec.303 (c) (9)]	☐	☐

Gulf Strike Team
Bulletin Supplement

The U.S. Coast Guard Gulf Strike Team has released the following bulletin reviewing lessons learned in response to several different types of crude oil.

Responder Awareness – North American Crude Oil Shipment

The information contained in this document is advisory in nature and intended to raise awareness within the response community. It is not a standard or regulation, and it creates no new legal obligations.

Growth of North American Petroleum Production

North American crude petroleum production has rapidly risen over the past years. This growth is, in part, a result of non-traditional drilling techniques used to access shale and bitumen oil reserves. The main formations currently being tapped include Canadian Tar Sand formations, the Bakken Shale formation located in North Dakota, and the Eagle Ford Shale formation located in southwestern Texas. Additional areas of exploration include northeastern Colorado, central Florida, and the Pennsylvania region. This petroleum production growth has outpaced the carrying capacity of the nation's current fixed infrastructure and pipelines. As a result, additional transportation capacity needs are being met by rail cars, tanker trucks, and barges to move these crude products to coastal refineries and distilleries. Areas seeing significant increases in commerce and maritime traffic include the Columbia River System, the Hudson River, and the Mississippi River and associated navigable waterways.

Unlike traditional crude oil reserves, these formations produce petroleum with varying physical properties and hazards.

For example, Canadian Tar Sand Oil is so viscous that petroleum diluents are added to decrease the product's viscosity for easier transport. In some cases, rail cars laden with Tar Sand Oil must be heated until the product reaches a temperature at which it can be efficiently pumped. Conversely, oil from the Bakken Shale Formation is observed to behave like gasoline with a low viscosity, high volatility, high flammability and similar benzene, toluene, ethyl benzene, xylene (BTEX) levels. Despite these generalizations, it is widely known that a single formation can produce oil with significantly varying characteristics based solely on geographic locations within that formation, and over-generalization can lead to inaccurate product data.

As this oil production continues to rise and more formations are identified through further exploration, pollution incidents involving these products may increase and consequently pose threats to responders and the environment. Area Committees and response organizations should be aware of these products, especially those that move through their areas of responsibility*. The Gulf Strike Team (GST) recently responded to multiple train derailments and a barge collision involving some of these products which produced valuable lessons learned to be shared amongst the response community.

Safety Data Sheets

Companies generate and maintain copies of Safety Data Sheets (SDS) for the crude oil they are transporting or refining. Responders should pay particular attention to SDS values that may have been 'estimated' instead of measured. Oil produced in formations can vary greatly from one geographic location to the next. Companies may also use generalized SDS for their products and may not be required to analyze the physical characteristics for each shipment of crude oil they are transporting. Physical properties within each load, regardless of formation 'generalities' may vary and pose their own unique hazards to responders. In one SDS reviewed for Bakken Crude Oil, physical properties such as the lower and upper explosive limits, auto-ignition temperature and vapor density were estimated. The hazard classification section was also broad in nature. However, a SDS for Eagle Ford Shale Oil listed specific physical property values and presented a robust and detailed discussion on the hazard classification. Treat each response uniquely and carefully review the product's SDS.

Hazard Awareness

The following hazards are situation specific and may not represent similar events or trends for responses in the future.

Canadian Tar Sand Oil

Diluents, a fluid used to lower viscosity, are added to bitumen based oils (Tar Sand Oil) in large enough quantities to make the original product easier to pump and transport. A diluent frequently used in large volume is Natural Gas Condensate. Natural Gas Condensate consists of many short chain hydrocarbons, which include various alkanes, alkenes, BTEX, and longer single chain chemical variants. Natural Gas Condensate can have a proper shipping name of Petroleum Distillates, N.O.S., which is classified as a dangerous good under the IMDG Code. Some of the hazards include: flammability; easily ignited by heat, sparks or flames; vapors forming explosive mixtures with air; toxicity through various routes of exposure; and being volatile at room temperature. Once the diluent is separated from the product, the original physical properties of the bitumen return which emulate characteristics of roofing tar. In a marine or aquatic environment, and under the right conditions, this dense product could sink to the bottom of the impacted waterway making recovery efforts far more challenging and time consuming than traditional recovery techniques.

Bakken Crude Oil

The GST recently responded to a spill of Bakken Crude Oil into the Mississippi River after a tank barge was breached during a collision. In this particular case the product was very volatile. Even under cool atmospheric conditions (approximately 45°F), air monitoring conducted around the damaged barge were registering Volatile Organic Compounds (VOCs) consistently at 200+ ppm. Benzene was detected directly adjacent to the floating oil within containment boom and measured at 40.2 ppm, which significantly exceeded OSHA's Short Term Exposure Limit (STEL) and Ceiling of 5.0 ppm and the ACGIH's Threshold Limit Value of 0.5 ppm, which is the occupational exposure limit for Coast Guard personnel. These atmospheric hazards were detected by the GST upon arrival approximately 12 hours after the incident occurred, and elevated levels of benzene persisted for several days into the response. In addition to physical measurements, subsequent laboratory analysis of the Bakken Crude Oil found naphthalene, a highly toxic polycyclic aromatic hydrocarbon, to be at 2000 ppm.

Eagle Ford Shale Oil

Eagle Ford Shale Oil is reported as having similar physical properties and hazards as Bakken Crude Oil with the addition of an ignition potential through static discharge. A visual comparison of these oils revealed both have low viscosity (slightly more than gasoline but less than motor oil); with Bakken Crude Oil being dark brown and Eagle Ford Shale oil light to medium brown in color.

Steps to Protect Responders

VOCs, including BTEX, can pose a direct hazard to the health of responders. Each type of oil presented above is acknowledged to contain these compounds, which during a response, present at a minimum an inhalation hazard to responders. One way to mitigate this hazard is to have the appropriate detection capabilities deployed to properly identify and quantify the hazard prior to impacting response personnel. Once quantified, appropriate personnel protective strategies can be implemented, such as the wearing of an air purifying respirator or self-contained breathing apparatus. It is important to note that the four gas monitors currently issued to Coast Guard Pollution Incident Responders, the BW Technologies GasAlert Quattro Multigas Monitors, do NOT directly measure for BTEX. Special air monitoring equipment may be required to properly identify BTEX hazards. Should a response event involve any of the above discussed oils, ensure that appropriate equipment is a part of the planning phase of a deployment to alert responders to a potential hazard.

Recommendations

Cautiously consider the product, its hazardous properties and values; recognize that hazard variations may exist. Do not ascribe to any generalization for a product; fully understand the data provided through the product's SDS. Properly detect, identify, and quantify hazards before taking action; use appropriate air monitoring equipment. Develop effective protection strategies and mitigate hazards through safety protocols.

National Strike Force Resources

Each Strike Team maintains air monitoring equipment which can quantitatively and qualitatively identify BTEX hazards. Additionally, each Strike Team and the National Strike Force Coordination Center have a staff Industrial Hygienist who can help response personnel evaluate known and unknown risks, interpret SDS information, and help in the development and review of site safety plans. FOSC/OSCs may contact the Gulf Strike Team's 24 hour emergency line at (251) 441-6601 should a need arise for air monitoring equipment, response personnel, or consultation on safety protocols and response tactics.

View the original bulletin at:

http://www.uscg.mil/hq/cg5/cg544/docs/GST_BULLETIN_SUPPLEMENT_FY14_Q3_Published.pdf

Upcoming CAMEO Training

OCTOBER 16-17	**HOTZONE Conference (Houston)**	**Basic CAMEO**
OCTOBER 23-24	**ALVA, OK**	**Basic CAMEO**
NOVEMBER 3-6	**GALVESTON, TX**	**CAMEO Train-the-Trainer**
NOVEMBER 19-20	**TAHLEQUAH, OK**	**Basic CAMEO**
DECEMBER 2-3	**DURANT, OK**	**Basic CAMEO**
DECEMBER 15-17	**FT. SMITH, AR**	**Advanced CAMEO**

For additional information or to register, email Tom Bergman at Tom.bergman@deq.ok.gov

CAMEO Training opportunities regularly available at:

http://www.adem.arkansas.gov/ADEM/Divisions/Preparedness/Training/index.aspx

https://www.preparingtexas.org/

http://www.gohsep.la.gov/trainingchoose.aspx

http://www.ok.gov/triton/modules/calendar/calendar.php?calendar_seq=5

https://www.preparingnewmexico.org/

FEMA Releases 2014 National Preparedness Report

Courtesy of EPA Region 8 Preparedness
Volume V, No. 3 2014

The National Preparedness Report (NPR) is an annual status report on the nation's progress toward reaching the National Preparedness Goal of a secure and resilient nation established in the Presidential Policy Directive 8: National Preparedness. The NPR identifies areas of sustainment and progress made across 31 core capabilities towards building a secure and resilient nation while identifying opportunities for improvement.

Key overarching findings from the 2014 NPR include:
Embracing a new approach to disaster recovery: Major events, such as Hurricane Sandy and the severe 2012-2013 drought, have served as catalysts for change in national preparedness programs, drawing clearer links between post-disaster recovery and pre-disaster mitigation activities. Launching major national initiatives:

The Federal Government has initiated several national-level policy and planning initiatives that bring unity of effort to preparedness areas, including critical infrastructure security and resilience, cybersecurity, recovery capabilities, and climate change. Managing resource uncertainties: Budget uncertainties have created preparedness challenges at state and local levels of government, resulting in increased ingenuity, emphasis on preparedness innovations, and whole community engagement

Partnering with tribal nations: Tribal partners are now more systematically integrated into preparedness activities. However, opportunities remain for Federal agencies and tribal nations to increase engagement and expand training opportunities on relevant policies.

To obtain a complete copy of the full report, visit:
www.fema.gov/national-preparedness-report

Emergency Response Numbers

Arkansas Dept. of Emergency Management	**800-322-4012**
Louisiana State Police	**877-925-6595**
New Mexico State Police	**505-827-9126**
Oklahoma Dept. of Environmental Quality	**800-522-0206**
Texas Environmental Hotline	**800-832-8224**
National Response Center	**800-424-8802**
EPA Region 6	**866-372-7745**
CHEMTREC	**800-424-9300**

Questions for the Thoughtful Responder

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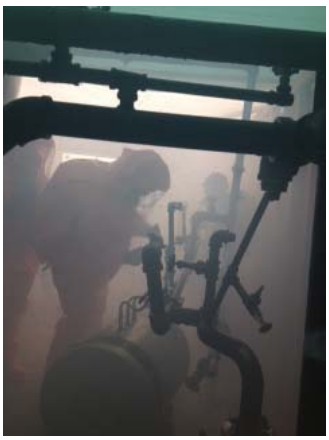
It is imperative, it seems to me at least, that we don't just teach our first responders correct hazmat incident behaviors so they remain safe when they interact with an incident. Sure, I believe it is critical that our women and men know the chemicals in their jurisdiction's agricultural, industrial and commercial facilities; what PPE and equipment they have, and what is needed for an appropriate response; whom to call when they are near going out of compliance or getting in over her head; and what to do when someone is injured. But I also believe that we must also teach them to step back, relax, and think strategically, objectively, and insightfully—before they act, react, and enter the zone. Not everyone needs to be a strategic, critical thinker, but the more of them you have on your side the better things will turn out. We need to teach our responders to think out, speak up, and discuss what's going on.



FIRST: The starting point should be: **All incidents will neutralize on their own given enough time, so how can we make things better by doing what we are about to do?** The key point here being something is going on at the incident, what is it? What will happen if we do nothing? For instance, can we "Let burn"? Need we interact with the incident, or is it best just to guard the perimeter? Will the environmental damage (physical and economical) caused by a hydro-response be worse than the damage caused by doing nothing? Have we discussed the axiom "You can't save dead people" before we endanger responders in an unsafe recovery? We must remember that responders are for the most part adrenaline junkies and not cubicle rats and they want to "do something." We must remember they love only the "fight" part of the freeze/fight/flight syndrome, they want to fight the problem. This adrenaline rush syndrome inhibits memory, data collection, data analysis, decision making, and calm reflection. Almost every problem with an incident or court case over poor response has to do with acting before thinking, reacting before analyzing. Always be sure to ask, "Must we do what we are going to do?" and "Should we really do what we are going to do?"

SECOND: Sometimes we need to teach the bigger picture, ask the bigger questions. For instance, try this approach: Take a key response-related concept, such as the electromagnetic spectrum and work with it through questions. What are the key regions of the electromagnetic photon (wave-particle, "wavicle") spectrum? How do each of these regions affect response? What are the key problems with each region? Which region is responsible for the most injuries and deaths of fire fighters? How can we train people to efficiently and effectively deal with these issues.

We should do the same type of thing with the two most damage-causing, injury-causing chemical groups: hydrocarbons and acid-bases. Here are some good, thought-provoking hydrocarbon questions (but they are not in any prioritized order): Your turnouts are designed to protect you from _____? At what temperature does your body begin to dysfunction? At what temperature does plain old wood burn? What types of heat are there? Which is the type most dangerous to responders? The leading causes of line-of-duty deaths of responders are _____ and _____? Did you know that your turnouts do not protect you from _____ but may exacerbate the harmful effects of this? What is the temperature of molten lava? Can you explain the difference between temperature and heat? Can you give examples? What is the range of peak flame temperatures for common hydrocarbons? At what temperature do your turnouts become dysfunctional, that is, quit doing what they are designed to do? How do these last questions relate to the temperature at which your body becomes dysfunctional?

Here are some good, thought-provoking acid-base questions (but they are not in any prioritized order): What does the H in pH mean? What is its counterpart? What are the pH levels of common products (that's what industry calls the stuff in the rail car or tanker, "product"), say sulfuric acid, drain cleaner, stomach acid, anhydrous ammonia? How many taste buds do you think you have? What do they test for? What makes a strong acid strong or a strong base strong? What does neutralize mean and how does neutralization work? Why is sulfuric acid one type of problem, yet hydrofluoric acid is an entirely different type? Is it true you may not feel your body being eaten away? Why is my skin feeling soapy a pH issue?

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Finally, here are some good, thought-provoking state-of-matter questions (but they are not in any prioritized order): What are the four states of matter? What is a phase change? What is latent heat? What does phase change have to do with latent heat? What is evaporation? What is combustion? What is oxidation? What does oxidation rate have to do with phase change? What does temperature have to do with oxidation? What burns? What does the word flammable denote? What does the word combustible denote? What does the word ignition mean? What does all of this have to do with states of matter? What is a solid? Which is the most dangerous solid to responders? What does this have to do with particle size? What does particle size have to do with phase and oxidation rate?

These are not exactly responder behavior questions, these are more like "What's really going on here?" questions. These are more like "What do you think about chemistry and physics as they relate to your job?" questions. They are not easy questions, but they are important ones.

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