New Technologies and Systems for Emergency Response Management

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At no time in our country's history has the need been greater to plan and work diligently to make better emergency response and remediation resources available more quickly. The lack of a coordinated collection of emergency response capabilities at the local, state and even national levels can seriously reduce the effectiveness of response efforts in the event of a hazardous materials spill, industrial accident or terrorist activity. This situation is especially acute in the wake of the Sept. 11 terrorist attacks, which have focused national attention on the security of hazardous materials and other substances that could be used as weapons of mass destruction.

DOT Urges Stricter Security for Transportation of Hazmat

Hazmat shipments in the U.S. total more than 800,000 daily, according to the U.S. DOT, which has proposed legislation aimed at strengthening security and safety in the transportation of the nation's hazardous materials. The Federal Motor Carrier Safety Administration intends to visit 52,000 hazmat haulers which carry the most hazardous materials, including anhydrous ammonia, poisonous gases, bulk explosives and petroleum products. The FMCSA will request that carriers implement plans to improve personnel security, hazmat package controls and route security.

Secretary of Transportation Norman Mineta has indicated he believes that all modes of transportation in the U.S. are at risk, both as targets of terrorists and as weapons against Americans. Calling trucks "engines of the economy," he urged transporters to increase security to keep them from becoming "engines of destruction." He also said that tighter government security procedures will restrict the mobility of transporters, but that they must understand this is no longer a time of business as usual.

The law enforcement community has had to take on the additional job of ensuring security on the highways and staying alert to prevent planned destructive acts. Lt. Paul Sullivan, president of the Commercial Vehicle Safety Alliance and a member of the Mass. State Police, has stated that CVSA inspectors have increased the number of Level III (driver only) inspections for hazmat haulers. He has recommended that transporters consider new ways to track shipments in route and establish a hotline to notify authorities to ensure the proper response in questionable situations. He emphasized that whatever new procedures or security measures are introduced, they should be uniform and the personnel implementing them should be uniformly trained. Lt. Sullivan called upon the 10,000 CVSA-certified inspectors as well as all program managers and safety partners, including industry, to work together to make the highways safe and secure.

New Electronic System Can Save Critical Time During Emergencies

A unique integrated communications system has been developed by Spill Center, a company specializing in hazmat incident management. The system can facilitate communication and coordination for law enforcement officials and first responders and enable companies having care, custody and control of hazardous materials to make better decisions in the management of spills. The new electronic emergency response management system combines wireless communications, tracking technology, and access to specialized databases via the Internet. Response units, equipped with on-board transmitters emitting unique, identifiable signals, can be tracked in real time and their locations displayed on computer-generated maps. The system can immediately locate emergency assets, assess their capabilities, and determine which units can respond to a particular incident in the shortest period of time. As a result, emergency responders will arrive at the scene of incidents faster and better prepared than ever before.

Benefits for Spill Generators

The electronic emergency response management system benefits transporters of hazmat and others having care, custody and control of hazardous materials by providing fast access to information needed to expedite response and remediation of hazmat spills. The system incorporates Spill Center's proprietary online spill management systems and information databases as well as global positioning systems and wireless communication technologies. Using on-board computers, vehicle tracking and other equipment already on vehicles, this system can provide real-time information about cargo and equipment, the vehicle's location and nature of the incident within minutes. Wireless systems enable the driver to send an instant alert via the wireless service provider in the event of a hazmat emergency. Routed electronically, the message would be received at Spill Center, which would alert emergency responders, providing the exact location of the vehicle and additional details as they become known. Vehicle tracking technology could also be configured to determine if a hazmat delivery has been delayed or a route changed for some unexplained reason. Spill Center has applied for a patent on the Electronic Emergency Response Management System.

Prototype Systems Developed For Emergency Responders

Prototypical systems for fire service and hazmat response companies have been created, integrating satellite and cellular technologies with extensive databases and compliance experts trained in hazmat incident management. The systems offer centralized access to resources and critical information associated with hazmat release events, biological and chemical weapons of mass destruction, and other dangerous substances not available in any other known system.

At the heart of the electronic emergency response management system is an equipment/capabilities database for fire services and other emergency responders. Each company is asked to maintain a current inventory of equipment and response capabilities in the database, which would be accessed through a secure, interactive Web site (www.spillcenter.com). Authorized

personnel would be able to search that and other specialized databases when they require assistance or additional equipment during an emergency situation.

The electronic emergency response management system was demonstrated for the first time in the fall of 2001, during the COHMED hazmat training conference conducted by the U.S. DOT's Research and Special Programs Administration. RSPA is responsible for regulating hazardous material transportation safety. Attendees at the demonstration included fleet safety managers, emergency responders and law enforcement personnel – all of whom were well aware of the potential of hazmat as a weapon of mass destruction in the wrong hands. Representatives from wireless messaging companies discussed how satellite tracking and wireless communications capabilities are linked electronically to a 24-hour/7-day emergency call center via electronic message routing systems. Spill Center personnel demonstrated electronic spill reporting systems and technologies, online contingency planning capabilities and response management systems.

Satellite and Cellular Technology Provide Critical Links

Telematic services that track vehicles and relay real-time information to fleet operators have become standard in the rental/leased vehicle market. Packages for commercial trucks combine GPS and cellular technology in hidden installations, which include GPS receiver, wireless transceiver, onboard computer and GPS/cellular antenna. A truck's location is tracked by GPS, while information about the vehicle and cargo is transferred via the cellular networks to a network operations center, which can relay messages. The fleet operator, using a secure password, can access information in real time over the Internet.

Regulators Becoming Stricter On Spill Notification Rules

As part of the nationwide effort to improve hazmat security, local and state regulatory agencies are becoming stricter about enforcement of spill notification requirements. Texas requires spill generators to report incidents within one hour of a spill. A county in Ohio has a 30-minute reporting requirement. Transporters are advised to stay current with changing regulations related to hazmat releases. The only notice many spill generators ever receive is the one that arrives by mail stating the company is in violation for failure to file a report on the incident.

For transporters, being prepared for a spill is the key to handling it quickly and minimizing damage to the environment. Contingency planning is the place to start. The contingency plan ensures that the right people in the client organization are notified, the right internal and external reports are triggered, and preferred contractors are contacted. Most important is putting that contingency plan in a place like Spill Center, where trained people can activate it and follow the transporter's instructions to coordinate response efforts and locate the resources needed to respond to the spill as soon as possible. Spill Center associates also complete all required hazmat incident reports on behalf of clients. The reporting is documented to limit the spill generator's environmental liability and to establish a defense against any third-part claims resulting from an accidental release.

Online Capabilities Increase Efficiency in Spill Management

During the Spill Center demonstration, participants were able to complete and file customized spill contingency plans while logged onto the Spill Center Web site. Spill Center launched its Internet-based support capabilities in November 2000. Clients and non-registered users alike can access services through the site, which include reporting a spill, finding a contractor, disposal options and request a call-back. Also at the Spill Center Web site is an "Ask The Expert" feature. It enables users to ask questions related to spills, cleanup activities and regulations. Spill Center personnel, who include legal, environmental, and technical specialists, answer the questions.

Spill Center staff are available 24 hours a day/7 days a week to assist in incident management. That can include advising emergency responders of the type and amount of material spilled, the need for specialized equipment, the spill's proximity to any water, and other information to expedite containment and remediation while ensuring public safety.

Specialized Web conferencing capabilities are available through the Spill Center Web site, enabling spill generators and responders, alike, to log on and make informed decisions based on information displayed in secure areas. Documents with information important to the response are displayed and updated in real time. Access is available to many people at the same time, keeping everybody associated with the incident on the same page. This capability comes through an affiliation with Claim Negotiator, a company specializing in online negotiation and agreement documentation, providing a combination of claims management and virtual meetings.

The electronic emergency response management system directly benefits both spill generators and government regulatory authorities requiring access to information and resources to clear incidents.

System Helps Resolve Rift Between Industry and Government

The system helps resolve a long-standing rift between spill generators, who want control of the incident to minimize their costs and liability, and government regulatory authorities, who demand access to information and resources to clear the incident. The problem stems from confusing the government's interest in access to information with a desire to control the incident or control the spill generator or the moment-to-moment response, remediation and disposal. One side wants control, one side wants access. Government feels that industry has for too long denied them or has failed to provide them with access to resources that would allow agencies to fulfill their mandate of law enforcement and protection of public safety, health and the environment.

With the electronic emergency response management system, the right tools are available to manage inventory for response and remediation along with immediate access to critical information, even transporters' contingency plans that are key to coordinating cleanup efforts. The system gives first responders and planning agencies access to resources needed to protect the public, while enabling industry to maintain the control it needs to limit liability and minimize damages to valuable equipment and cargoes. While these technologies are not new, the integration of them into a comprehensive system dedicated to the

management of emergency response and remediation is unique and beneficial to industry and the public interest.

About Tom Moses & Spill Center

Tom Moses, an environmental attorney, former EPA toxicologist, and Spill Center president, founded Spill Center in 1990 as a 24-hour/7-day nationwide resource for spill generators and responders. A leading environmental claims management company, Spill Center provides support services and incident management for clients and non-clients who are involved in hazmat spills. Spill generators notify Spill Center by telephone or via the Internet through the reporting capabilities of the company's Web site (www.spillcenter.com).

In the event of a hazmat or diesel fuel spill, a Spill Center compliance associate assesses the situation and immediately begins taking steps to help the spill-generator manage the spill to contain costs and limit liability – even when key decision makers at the transporter's company are not available. That is done by activating the client's spill contingency plan, which is a set of detailed claim-handling instructions, customized to meet the client's individual requirements. The plan indicates which people in the client organization are to be notified. It also triggers the right internal and external reports and lists preferred contractors. A spill contingency plan, which can be completed online through Spill Center's Web site, is kept on file for each client.

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