



Emergency Management and Response Information Sharing and Analysis Center (EMR-ISAC)

INFOGRAM 9-10

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NOTE: This INFOGRAM will be distributed weekly to provide members of the Emergency Services Sector with information concerning the protection of their critical infrastructures. For further information, contact the Emergency Management and Response- Information Sharing and Analysis Center (EMR-ISAC) at (301) 447-1325 or by e-mail at emr-isac@dhs.gov.

HazMat Survival Tips

The frequent occurrences of hazardous materials (HazMat) incidents throughout the United States prompted the [Emergency Management and Response—Information Sharing and Analysis Center](#) (EMR-ISAC) to review the "[10 Initial Response Considerations for First Responders](#)," looking for lessons learned or best practices to protect the internal critical infrastructures of the nation's emergency services. In this article, based on more than 25 years as a first responder, Steven De Lisi reminded: "The goal of any emergency response must always be to create a better outcome than the one that would occur naturally and to do so in a manner that does not expose our personnel or the public to unnecessary risk."

To acquire "a better outcome" in HazMat responses, the author proposed ten considerations that were abbreviated by the EMR-ISAC as follows:

- Hazardous materials vs. chemicals. Consider all chemicals to be HazMat with potentially dangerous characteristics requiring further investigation.
- Chemical involvement that is known, suspected, or discovered. Reevaluate response tactics and put distance between responders and sources of exposure after a chemical involvement determination. ("Evacuate patients if they can be moved.")
- Means to detect the presence of chemicals. Assess chemical involvement by detecting odors, visually observing various characteristics, and by comments from victims and bystanders.
- Arrival on-scene. Stop a safe distance from the scene where there is known or suspected HazMat involvement.
- Isolate, evacuate, and deny entry. Eliminate injuries or deaths by blocking roads, evacuating buildings, closing businesses, etc.
- Obtain emergency response information. Use the Emergency Response Guidebook and Material Safety Data Sheets, but the manufacturer is usually the best source of information about a chemical.
- Defensive vs. offensive. Isolate an area safely and wait for personnel with appropriate equipment and training when possible. ("Always remember to make an informed decision based on weighing risk vs. benefits.")
- Anticipate the worst. Evaluate all incident factors thoroughly before acting and do not forget to anticipate changes that could occur during the incident.
- Notifications. Remember that numerous individuals and agencies have interest whenever a chemical is released from its container.
- Establish an effective Incident Command System. Delegate responsibility for numerous tasks during the incident by initiating an Incident Command System for operational command and control.

More resources regarding emergency responses to [hazardous materials](#) and [planning for HazMat](#) (PDF, 257 KB) can be found at the web site of the U.S. Fire Administration.

Solar Storms: Potential for Chaos

After participating in a recent tabletop exercise, government officials concluded that a massive solar storm could leave millions of people around the world without electricity, running water, or phone service, according to a [National Public Radio](#) article. The [Emergency Management and Response—Information Sharing and Analysis Center](#) (EMR-ISAC) examined this article to ascertain the effects of a solar storm on the operations of the nation's Emergency Services Sector (ESS).

The author explained that solar storms happen when an eruption or explosion on the surface of the sun sends radiation or electrically charged particles toward Earth. A major storm can release as much energy as one billion hydrogen bombs that destroy electrical transformers around the globe leaving nations in the northern latitudes without power, water, heat, air conditioning, etc. "Minor storms are common and can light up the Earth's northern skies and interfere with radio signals."

The EMR-ISAC acknowledges that our modern technological society is characterized by a complex interweave of dependencies and interdependencies among national, state, and local critical infrastructures. Therefore, because of a significant reliance on technology, critical sectors such as the ESS are vulnerable to a degradation of essential services caused by a major solar storm.

Considering the possibility of long-term power grid failure, the [National Academy of Sciences](#) provided the following recommendations for the stakeholders of critical infrastructures (e.g., emergency services):

- Develop a consequence assessment tool to perform planning analysis and training, and to assist in the identification of critical personnel and equipment requirements.
- Establish a program to assess the vulnerability of evolving critical networks and electronics equipment to long-term power grid failure, and to develop a plan for survivability and continuity of operations.

Additional information on this matter is available at the web sites of [sciencecastle.com](#) and [scribd.com](#).

Status of the H1N1 Pandemic

Although it seems as if the H1N1 pandemic is waning, the [World Health Organization](#) (WHO) warned last week that it is too early to determine if the H1N1 flu virus has ended. The [Emergency Management and Response—Information Sharing and Analysis Center](#) (EMR-ISAC) learned from [emaxhealth.com](#) that a WHO emergency committee stated the swine flu (i.e. H1N1) may reemerge and, therefore, "do not get too comfortable yet, because the transmission of influenza often waxes and wanes."

The EMR-ISAC further observed that the [Center for Infectious Disease Research and Policy](#) of the University of Minnesota reported that the [American College of Emergency Physicians](#) has witnessed a new wave of H1N1 flu virus patients coming to emergency departments during February. Additionally, the [American College Health Association](#) has noted a 52% rise in influenza-like cases in February, reflecting the first increase since the end of November.

Regardless of whether swine flu has run its course or not, the [Centers for Disease Control and Prevention](#) (CDC) continues to urge health care professionals (e.g., emergency medical technicians and paramedics) to get vaccinated against the H1N1 flu virus. Since the risk of a new wave is still possible, the CDC encourages vaccination as the best way to protect emergency personnel against the illness and subsequent loss of work.

For the benefit of Emergency Services Sector (ESS) department and agencies, the EMR-ISAC assembled recommendations for actions that can be implemented to protect ESS personnel in their performance of duties. These few basic precautions have been excerpted from the CDC and other first responder sources:

- Implement acute febrile respiratory infection screening for all callers or patients with nasal congestion, cough, fever, or other flu-like symptoms.

- Request additional information from the dispatcher when sent to respiratory, sick person, and fever-related calls, but given only limited initial information.
- Perform initial interview of all patients from more than 6 feet away to determine if personal protective equipment precautions are necessary.
- Place a standard surgical mask on all patients with suspected influenza symptoms before approach.
- Maintain strict adherence to hand hygiene by washing with soap and water or alcohol-based hand disinfectant immediately after removing gloves following any contact with patients.
- Review state and local pandemic plans and apply applicable provisions.

Coffee Break Training

The U.S. Fire Administration (USFA) is now providing [Coffee Break Training Bulletins](#) for the fire service audience to read and enjoy during their daily routines. These one-page training notices, posted every Tuesday, provide technical training in fire protection systems, building construction, codes and standards, inspection techniques, hazardous materials, and administrative tips. The bulletins can be repurposed as desired. USFA encourages all firefighters to sign up for the e-mail weekly notice at the following link: https://service.govdelivery.com/service/subscribe.html?code=USDHSFA_5.

Clarification: Use of Cyanide Antidote Kit

In last week's INFOGRAM 8-10 (25 February), the EMR-ISAC included the article "New Dangers for First Responders," which offered for consideration: "Request Assistance of a HazMat Support Unit with a Cyanide Antidote Kit for antidote administration." In response to this recommendation, a Toxmedic Coordinator for a Regional WMD/HazMat Response Unit provided the following clarification regarding the administration of the Cyanide Antidote Kit for hydrogen sulfide poisoning: "The pre-hospital management of hydrogen sulfide poisoning is extremely complex and should be reserved for specially trained hazardous materials medical personnel operating under approved protocols. Defer to your local hazardous materials response agency if hydrogen sulfide poisoning is known or suspected."

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REPORTING NOTICE

The National Infrastructure Coordinating Center (NICC) within the Department of Homeland Security (DHS) Office of Infrastructure Protection is the central point for notifications regarding infrastructure threats, disruptions, intrusions, and suspicious activities. Emergency Services Sector personnel are requested to report any incidents or attacks involving their infrastructures using at least the first and second points of contact seen below:

- 1) NICC - Voice: 202-282-9201, Fax: 703-487-3570, E-Mail: nicc@dhs.gov
- 2) Your local FBI office - Web: www.fbi.gov/contact/fo/fo.htm
- 3) EMR-ISAC - Voice: 301-447-1325, E-Mail: emr-isac@dhs.gov, fax: 301-447- 1034, Web: www.usfa.dhs.gov/emr-isac, Mail: E-108, 16825 South Seton Avenue, Emmitsburg, MD 21727