

TerranearPMC Safety Share

Week of July 22, 2013 – Community Right-to-Know

Recently, the international news agency, Reuters, reported that a 27-year-old U.S. program intended to warn the public of the presence of hazardous chemicals is flawed in many states due to scant oversight and lax reporting by plant owners. Under the federal Emergency Planning and Community Right-to-Know Act (EPCRA), private and public facilities must issue an inventory listing potentially hazardous chemicals stored on their properties. This inventory must be filed with state, county and local emergency-management officials. The information is then supposed to be made publicly available, to help first responders and nearby residents plan for emergencies. But as it turns out, facilities across the country often misidentify their hazardous chemicals or even fail to report the existence of the substances altogether.

The history of EPCRA goes back to 1984 in a village just south of Bhopal, India, where a Union Carbide plant released approximately forty tons of Methyl Isocyanate (MIC) into the air. MIC, is a gas in its pure form and is extremely hazardous. Nevertheless MIC is used in many products, such as polyurethanes and pesticides. During the Bhopal incident, the gas quickly and silently diffused over the ground, resulting in an estimated 5000 fatalities to local residents. While this tragedy occurred in India, Union Carbide did manufacture MIC at another facility: this one in the Kanawha Valley of West Virginia. It was at this plant, one week after the Bhopal incident that Union Carbide held a press conference where corporate officials expressed their confidence in the safety of the West Virginia plant's operations. As a show of good faith, Union Carbide elected to shut down production of MIC until it could make \$500 million worth of safety improvements. Approximately six months later, Union Carbide resumed production of MIC. Then three months after the resumption of MIC production, 500 gallons of aldicarb oxime and MIC leaked from the plant. Although no one was killed, 134 people living around the plant were treated at local hospitals.

Both the Bhopal and the West Virginia incidents underscored the reality of modern-day chemical production—no matter what safety precautions are taken, no matter how well trained plant employees may be, and no matter how prepared a plant may be to handle an emergency situation, accidents may still occur. Indeed, around the time of the Bhopal disaster, 6,928 chemical accidents occurred in the United States within a five-year period. In response to this growing threat, the United States Congress passed EPCRA in 1986.

EPCRA regulations (which can be found in Title 40 of the Code of Federal Regulations, Parts 350-372) establish four types of reporting obligations for facilities that store or manage specified chemicals. They are:

1. **Emergency Planning and Notification:** requires facilities to notify the appropriate emergency response organization (i.e. fire department) of the presence of any "extremely hazardous substance" if it has such a substance in excess of the substance's threshold planning quantity, and directs the facility to appoint an emergency response coordinator.
2. **Emergency Release Reporting:** requires a facility to notify the local emergency response organization in the event of a release exceeding the reportable quantity of a CERCLA (i.e. Superfund) hazardous substance or an EPCRA extremely hazardous substance.

3. **Hazardous Chemical Notification and Inventory Reporting:** applies to any facility at which a hazardous chemical, as defined by the Occupational Safety and Health Act, is present in an amount exceeding a specified threshold. These facilities must submit to the local emergency response organization material safety data sheets (MSDSs) or lists of MSDSs and hazardous chemical inventory forms (also known as Tier I and II forms). This information helps the local government respond in the event of a spill or release of the chemical.
4. **Toxic Chemical Release Inventory Reporting:** requires manufacturing facilities included in SIC codes 20 through 39 to submit an annual toxic chemical release report if they have 10 or more employees and if they manufacture, process, or use specified chemicals in amounts greater than threshold quantities. This report, commonly known as Form R, covers releases and transfers of toxic chemicals to various facilities and environmental media, and allows EPA to compile the national Toxic Release Inventory (TRI) database.

Since 2005, accidents at facilities storing 140 Tier II chemicals that have been deemed most dangerous by the Environmental Protection Agency have resulted in approximately 60 deaths, more than 1,300 injuries and more than \$1.6 billion in onsite and off-site damages. It was only after the recent explosion at the fertilizer plant in West, Texas, in April that the Tier II system came under scrutiny. It was during this incident that 40 tons of ammonium nitrate exploded, killing 11 first responders. Though federal officials say a Tier II report was on file at the fire department, surviving firefighters reported that they had never seen a report detailing what chemicals were stored at the factory. Had they known, they may well have stayed outside the blast zone. Such errors and omissions can go unnoticed for years because the federal regulator that oversees the Tier II system—the EPA—and most state agencies make no effort to verify the data.

So who is to blame? According to the U.S. Chemical Safety Board, a federal investigative body, local oversight works well in heavily industrialized areas. These tend to have well trained plant employees and first responders, and capable emergency-management departments. These local officials can identify reporting flaws and work with facility managers to correct them. But in large parts of the country, local fire departments, often staffed by volunteers, can't afford to employ hazardous-material experts to ensure compliance. Most of these fire departments just don't have time to get to all of those inspections, so they rely on the Tier II data to tell them what's there.

Community-right-to-know may not be perfect; but what regulation is it environmental or otherwise is? Regulations are merely words on paper: much the same as those found in safety and health plans. Such plans can be written well and thoroughly reviewed; resulting in countless revisions so as to satisfy all party's conditions and qualifications. Yet, it is only when the work is being performed that the words take meaning. Reporting hazardous chemicals properly and informing the community and employees of hazardous materials and their potential harm will always come down to those on the front lines. Whether it is regulatory-driven or not: if those that have jurisdiction for the health and safety of the community and workers only go so far as to check off boxes on a form without understanding or caring about the implication of what they are doing (or are not doing), then, surely a disaster is waiting to happen.

Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.

Margaret Mead