

Environmental Problems, What Can You Do to Be Ready? Are You Ready to REACT to a Spill?

SCS ENGINEERS

Environmental Consultants and Contractors

By Tony Kollasch

While conducting G-force research as an army researcher in 1948 and 1949, Edward Murphy was trying to measure the force pilots experienced during deceleration. The crash test dummy awkwardly but consistently read zero, when Murphy's team discovered the wiring had been installed backward. His statement has put words to a feeling that many have had over the years: "Anything that can possibly go wrong, will go wrong". Murphy's Law applies to many human activities. No one is safe from it. That includes agri-business companies handling large quantities of chemicals and transporting them through all sorts of conditions to all sorts of facilities. Mr. Murphy's law means that the chances of an accidental spill are far greater than they should be. Accidental spills create environmental problems that can cost you time and money. But you can control your response to spills and react in ways that save time and money and limit the environmental impact when a spill does occur.

What can I do to minimize environmental impacts of a spill?

Many businesses share the concern of managing potential environmental impacts, but environmental concerns can be especially significant for agri-businesses. Many environmental regulations focus on prevention, and prevention is a key to success. However, no one can prevent 100% of spills 100% of the time. So it's important to also focus on providing the

proper, timely response after a spill occurs. You might be tempted to skip this step, but training your staff to provide prompt, informed response can help reduce your long term liabilities related to an accidental spill.

The Importance of Spill Response Preparedness

Training and preparedness are important factors in the effectiveness of a spill response. Your staff and resources are spread across large areas, and chemicals are mixed and transferred in many situations and locations. Many facilities have added mix-load pads to minimize the effects of spills in common transfer areas. They are very effective in heavily used areas. However, mix-load pads are not present everywhere chemicals are transferred, and your staff needs to be prepared for the worst. No one knows how or where a spill could happen. It may happen in a main yard with many resources available or in a remote area with only one employee present.

Your reaction to a materials spill incident is important and critical to an effective resolution. Timely responses are not just required by state and federal regulations, but prompt actions can also reduce the cleanup costs related to a spill. When spilled chemicals have a chance to soak into the ground or spread along frozen ground or through utility corridors and storm sewers, investigation and cleanup costs can increase quickly. Every spill is different, but early actions to obtain resources and minimize the spread of contamination can have a significant effect

on the time and cost of the spill resolution. The type of material spilled is an important factor in the type of response needed

Commonly spilled materials from agri-businesses include:

- Liquid fertilizer
- Granular fertilizer
- Pesticides
- Anhydrous ammonia (normally a gas, but large quantity liquids spills have occurred)
- Soil amendments such as potash and lime
- Petroleum Products and Wastes

Comprehensive staff training can be difficult and expensive. Basic reaction training and pre-planning who to contact for outside help may be the most effective solution. Training all employees on the basic steps in spill response is an important way to increase the effectiveness of your responses. Simple training does not need to be lengthy.

Follow this simple reminder chart to address the basic steps when a spill happens. The chart provides a basic acronym for how to REACT to a chemical spill incident, no matter the size.

Respond to immediate needs of the individuals present. The safety of your staff and the community is of utmost importance to all of us. The first step in any response to a spill incident is always to deal with injured people or

If A Spill Happens ...

REACT

R **Respond** safely to injuries and hazards.

E **Evaluate** the nature of the spill.

- What was spilled?
- Where was it spilled?
- How much was spilled?

A **Alert** your supervisor who may call:

- Emergency Personnel (911)
- WDNR 24-hour spill hotline (1-800-943-0003)
- Spill Response Experts

C **Contain** the spill, if safe, by:

- Applying absorbent materials
- Temporarily blocking drains and ditches
- Containerizing the source

T **Take** notes and document, if safe, by:

- Photographing and sketching the spill area
- Writing down the type and quantity of spillage

You can't plan spills,
but YOU CAN PLAN SPILL RESPONSE

24-hour Spill Response Hotline

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1.800.676.5038

potential injuries that may occur without immediate action. Move any injured people out of harm's way and ensure their safety first.

Evaluate the spill by determining what was spilled, how much was spilled, and where the spill occurred. The response to the spill will be much more important for more hazardous materials than others that are more benign. Small spills may be easily contained with absorbent materials, such as a bag of oil dry, but larger spill quantities can overwhelm available materials. The surface where the spill occurred can be significant if it is impervious, absorbent, or adjacent to sensitive areas like wetlands or populations.

Alert someone who can coordinate needed response calls if you can't do it yourself. Emergency and spill reporting right away is important from a regulatory perspective and also will prevent a spill from spreading or affecting sensitive populations. Don't forget to contact your insurance company if you plan to file a claim related to the incident.

Contain the spill if you can do it safely. Stopping ongoing spills by closing valves, blocking holes, or even rotating a barrel or tote, so that the liquid is no longer able to be released, are important steps to minimize the quantity of the spill. Block nearby drains or discharge locations, as these can provide conduits to quickly spread contamination over a much larger

area. Absorbent materials such as oil dry or kitty litter make great diversion or containment barriers when enough of the material is readily available.

Take photos of the spill vessel and the containment efforts. Make a map of the spill area, showing the spill locations, major features, and the surface cover. Note any sensitive features and what you did to protect them. Document discussions with first responders or regulators who are present at the scene.

At a spill incident scene, the local fire department and other first responders will generally be sure that containment is achieved and that populations are protected, but leave the cleanup and regulatory issues to the responsible party. If you are unaccustomed to that process, contact an experienced spill response provider to assist with coordination of the response. The response team that you choose must have the experience and physical resources necessary to handle the spill quickly and completely. Good relationships with WDATCP and WDNR are also important.

Steps in the overall response typically include:


- **Initial Response and Spill Mitigation including spill control, stabilization, and containment**
- **Spill Cleanup including sampling, collection, hauling, and disposal**
- **Spill Documentation including documentation of the cleanup activities**

Most spill cleanups end with the spill documentation step. In major spill cases, further actions may be required to achieve final agency compliance.

It is important to remember that as Mr. Murphy found out, you can't prevent all problems; in fact, you're likely doomed to experience many unforeseen situations. One key to limiting the damage created by an accident is to prepare your staff for the inevitable and teach them how to REACT! A sticker with the REACT reminders is available upon request. Call Tony at SCS for more information.

The SCS Engineers Emergency Spill Response Hotline quickly puts you in contact with a spill response coordinator 24x7. SCS can help you minimize response time by providing quick deployment of a responder or response team, usually within 30 minutes after receiving your call during regular business hours, and within 60 minutes outside regular business hours.

For 24-Hour Emergency Spill Response in Wisconsin and Northern Illinois, call: SCS Emergency Spill Hotline: 800-676-5038

Tony Kollasch has 20+ years of experience helping industrial, commercial, utility, state, municipal, and agricultural companies with environmental compliance services. For questions about how to be ready to prepare for a spill or if you need assistance with a spill, contact Tony at tkollasch@scsenq-engineers.com or 608-216-7381. 

Recent Past Articles from SCS

Planning

In the spring 2017 we discussed the importance of planning as they relate to oil sources at your agricultural facilities. If you have more than 1,320 gallons of stored petroleum at your facility, you may need a Spill Prevention, Control, and Countermeasure (SPCC) Plan. Not only will an SPCC Plan keep your facility in compliance with the federal regulations, it will provide the systems and training to allow staff to address issues with petroleum at your facility.

Facility Design (mix/load pads)

In the summer 2017 we shared the importance of facility design in staying ahead of potential environmental contamination. We discussed how a well-designed and well-built mixing and loading pad is critically important for preventing contamination in your liquid fertilizer and pesticide mixing and loading areas. These structures are state of the art in preventing everyday activities from creating major environmental liabilities.

Air Permitting

In the fall 2017 we shared important information about maintaining safe and compliant operations at your grain elevator facilities through air permitting. This complicated process and set of requirements can be confusing and we shared some tools that may be useful in making sure your facilities maintain compliance.

Understanding ACCP Program

In the winter 2017 we followed up with the Wisconsin Department of Agriculture, Trade and Consumer Protection (WDATCP) regarding important budget increases passed the Wisconsin State legislature in September 2017 for the Agricultural Chemical Cleanup Program (ACCP). Restored eligibility and increased site maximum reimbursements are just two of the important changes that may provide additional reimbursement for your ongoing or historical environmental cleanups.



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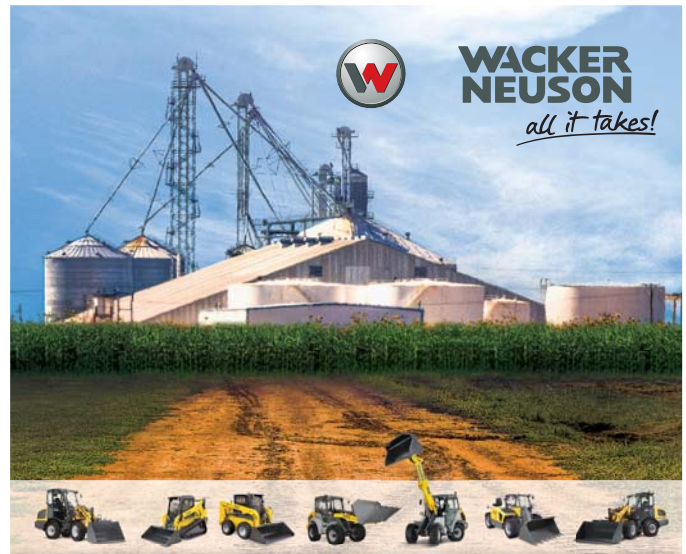
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