

Upgrade Your Agricultural Facility's Spill Contingency Planning

SCS ENGINEERS

By Chris Jimieson, PE
SCS Engineers

Suppose you learn from one of your employees that 100 gallons of liquid fertilizer has spilled and is heading toward a ditch or storm drain on your property. You have an existing spill contingency plan or Spill Prevention Control and Countermeasure (SPCC) Plan in place for the facility, but do you really feel confident that your team will proactively respond to the spill to limit your company's liability?

When I press my clients on having the proper tools for spill preparedness in recent years, their feedback suggests that – both industry and public – the sector as a whole could use improved tools to help them be better prepared for a spill. More often, I am providing enhanced/more graphic add-ons as attachments to a spill/spill contingency plan that can really help my clients be better prepared to navigate their facility through a spill efficiently and effectively.

One tool we like to share with agricultural facilities to post at strategic locations around their facility is an acronym to help your facility's staff in a chemical spill situation – REACT. This chart can help to simplify an otherwise high stress situation by helping a facility proactively take some good initial steps to address a spill situation.



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

When starting to assess your facility's most efficient means to upgrade spill preparedness tools, start with potential regulatory obligations. In general, the regulations are set up with varying levels of required preparedness.

For facilities above 1,320 gallons of aboveground oil/fuel storage, an SPCC Plan is required. There are SPCC regulatory requirements related to spill preparedness. Most notably the preparedness is covered with an annual training session and documenting response or countermeasures within the plan document.

If you are below 1,320 gallons of aboveground oil/fuel storage, I recommend an SPCC applicability memo and/or spill contingency plan, to which you could choose to add some very basic spill preparedness tools. The minimum tools I recommend to my clients are a spill incident report form, a spill response flow chart (that could be posted near key storage areas at the facility), a notice of oil/fuel transfer requirements for vendors, and internal notification procedures for a potential release to the environment.


Spill contingency planning is also required under the Resource Conservation and Recovery Act (RCRA) for large quantity generators of hazardous waste. A large quantity generator is a facility that generates more than 2,200 pounds of hazardous waste each month,

which is equivalent to about five drums of liquid hazardous waste.

Under RCRA, these contingency plans are focused on minimizing the hazards to human health or the environment from fires, explosions, or chemical releases. RCRA Contingency Plans are required to be submitted to local emergency response agencies including the fire department, law enforcement, and local hospitals, so they can be prepared for situations that could potentially arise at your facility. State and federal regulations define the specific spill contingency plan and annual training requirements.

While a mock spill training drill as part of the annual training session is a good means to prepare your employees, we are taking more aspects from these plan documents that can be duplicated, laminated, and placed in key areas around the facility. During a release, who is really going to leave the scene and run into an office to find the SPCC or RCRA Contingency plan? Graphics and visual aids near areas of spill potential will provide more immediate information necessary to initial spill responders.

I like to challenge my clients to think critically about how their facility could best be prepared to navigate a spill response process by asking good questions. Using this information, a facility's spill contingency plan can be tailored to best serve that particular facility, while meeting the necessary regulatory requirements. Each facility is different, so the best means of preparedness should fit the operational structure and practices of the facility to ultimately limit your facility's potential vulnerability during a spill.

Chris Jimieson has more than 20 years of experience helping agricultural, industrial, commercial, military, federal, state, municipal, and solid waste companies with environmental compliance. Chris has extensive experience helping clients build and review spill contingency, SPCC, and Storm Water Pollution Prevention Plan (SWPPP) projects. For questions about your facility's needs, contact Chris at cjimieson@scsengineers.com or 608-216-7367. 

Spill Response Flow Chart

Spill Response Criteria		
Incidental Spills	Non-Incidental Spills	Imminent Danger Spills
<ul style="list-style-type: none"> The spill is small, less than 1 gallon. The spill can be easily contained. The spill is unlikely to reach a navigable waterway, storm sewer, or sanitary drain. Cleanup procedures do not pose a health or safety hazard. Proper response equipment is available for a safe cleanup. Responding personnel have completed annual spill training. Responding personnel are comfortable with cleaning up the spill. 	<ul style="list-style-type: none"> The spill is large enough to spread beyond the immediate area (generally 1 to 20 gallons in size). Spill may reach a navigable waterway, storm sewer, or sanitary drain. Spill may require special equipment or training to clean up. If facility personnel address the spill, responding personnel have completed annual SPCC training. If responding personnel are not comfortable cleaning up the spill, use a third-party contractor. 	<ul style="list-style-type: none"> Based on the assessment of the fuel delivery driver or trained oil handling employee(s), the spill poses an immediate hazard to human health or the environment. There is danger of fire or explosion (e.g., a spill of greater than 1 gallon of gasoline). Spill involves injury to personnel. The spill has reached a navigable waterway, storm sewer, or sanitary drain. The spill cannot be contained.
Response by facility personnel possible	Response requires coordination with FEC or Alternate FEC	Requires response by the <Name> Fire Department - Call 911

FEC = Facility Emergency Coordinator

Contacts	Name, Title Work: XXX-XXX-XXXX / Cell: XXX-XXX-XXXX
	Facility Emergency Coordinator (FEC): Name, Title Work: XXX-XXX-XXXX / Cell: XXX-XXX-XXXX
	Alternate FEC: Name, Title Work: XXX-XXX-XXXX / Cell: XXX-XXX-XXXX
	Other Phone Numbers for Emergency Coordinator Use Only: Wisconsin State Spill Reporting Hotline 800-943-0003 EPA Region 5 Hotline 800-621-8431 National Response Center 800-424-8802 <Local Sanitary Sewer Utility Name> XXX-XXX-XXXX
	Other Phone Numbers: Chem-Tel 800-255-3924 RCRA Hotline 800-424-9346
	Cleanup Contractor-Petroleum: <Contractor Name> XXX-XXX-XXXX Cleanup Contractor-Hazardous Waste: <Contractor Name> XXX-XXX-XXXX

