In A Pickle?

It's a cold November day and you're almost off for the Thanksgiving holidays. Closing time is in 15 minutes so you are excited to finally be off work after a long day. In your rush to get home, you speed backwards on the forklift to get it parked in its proper place and suddenly hear a sickening thud, followed by the sound of gurgling liquid. Annoyed, you turn around to see what you hit and to your horror realize a 55-gallon drum tipped over and is gushing out its contents. As if that wasn't bad enough, you realize that about 10 feet away from the spill is a storm drain, to which the fluid is rushing at an alarmingly fast rate. What do you do? Plan to clean it up on Monday after the holiday? Call 911? Leave the scene of the crime as fast as your forklift will take you? Ignore that it even happened? Panic? Don't worry, we got you! In this month's edition of **The Rain Events**, we will be taking a look at spill prevention and response.

Plan Ahead: Before a spill happens, it's best to be prepared so you know exactly what to do if and when it happens to you. As they say – *an ounce of prevention is worth a pound of cure...*

First, many industrial facilities are required to have a Spill Prevention, Control, and Countermeasure (SPCC) Plan in place. Oil spills are dangerous not only to public health but to the environment and should be prevented and cleaned up quickly and thoroughly. According to the EPA, "The purpose of the Spill Prevention, Control, and Countermeasure (SPCC) rule is to help facilities prevent a discharge of oil into navigable waters or adjoining shorelines. The SPCC rule requires facilities to develop, maintain, and implement an oil spill prevention plan... These plans help facilities prevent oil spill, as well as control a spill should one occur."[1] SPCC plans apply to facilities that store, transfer, use any type of oil or oil products – such as gasoline, fuel, hydraulic oil, vegetable or animal oils, sludge, or oil mixed with waste; that have aggregate aboveground oil storage capacity greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons, and have the potential for an oil discharge reaching navigable waters. There are three tiers of SPCC plans which are dependent on the size and type of oil tanks on the facility - although each tier has a lot of similarities, the preparation process is slightly different depending on which tier your facility falls under. Click HERE for more information on the different tiers.

Note: To calculate oil storage capacity, use the maximum volume of the storage container and not the actual amount of product stored in the container. Add up all the oil storage capacity on your facility. Count only containers with storage capacity equal to or greater than 55 gallons. Then compare amount to the SPCC threshold.

"Although each SPCC Plan is unique to the facility, there are certain elements that must be described in every plan including: operating procedures at the facility to prevent oil spills; control measures (such as secondary containment) installed to prevent oil spills from entering navigable waters or adjoining shorelines; and countermeasures to contain, cleanup, and mitigate the effects of an oil spill that has impacted navigable waters or adjoining shorelines."[2] For tiers 1 & 2, an SPCC Plan can be self-created and self -certified by the owner or operator of the facility without the assistance of a Professional Engineer (PE) if it meets the eligible criteria[3]. The EPA has provided guidelines, templates, and example SPCC plans to assist in this process. If the facility does not qualify for self-certification it would be considered "Tier 3"[3] and a licensed PE must handle the SPCC plan and certification. Once completed, the SPCC plan must be kept at the facility.

In addition to an SPCC plan, it is advised to have procedures prepared and in place to assist your team in knowing the exact

protocol for emergency scenarios. A procedure should outline every detail of how to properly complete tasks, as well as give a detailed set of instruction for what to do during the times those tasks don't really go as planned. Accidents happen, so plan ahead – have a procedure to assist you step-by-step through the times of panic when figuring out what exactly to do may be a bit harder.

Secondary containment is also another really vital part of being ready for spill emergencies. By using secondary containment, the chances of a spill reaching a drain inlet or the perimeter of your facility before being captured are greatly reduced. Secondary containment does just what it says – it's the safety net that keeps accidents from becoming bigger than they should be. Secondary containment includes things like double-walled tanks, concrete or earth berms, curbing, dikes, temporary berms, drip pans, or sorbents. Secondary containment should be able to effectively capture and retain all of the contents of the largest tank in the case of a spill or capture any spilled oil from transferring activities. The goal of secondary containment is to keep a discharge from leaving the designated area.

Plan for Success: Instead of waiting around for spills to happen and then cleaning them up, plan to succeed! Don't ignore problems that could potentially cause a material spill, and a lot of headaches for you.

Spill Kits: Be sure you have an adequately stocked spill kit readily accessible on site. Spill kits should include things like PPE, spill pads, absorbent socks, sorbent materials, drain inlet protection, disposable bags and ties, a caution sign or cones (to keep the cleanup crew safe), and maybe even a copy of spill procedures. Evaluate your facility and determine what type of spills you may have to cleanup and adequately stock the amount of spill equipment and cleanup supplies you would need in the case of an emergency.

Labeling: Label everything. That way you know what spilled, and what materials to use to clean it up. Label your spill kit storage location so that anyone can find the spill equipment and cleanup materials. Label where procedures can be found. Label hazardous waste. Label, label, label. Make sure that everything is labeled, so even if you don't know what to use or where cleanup materials are, you can find them quickly without having to rummage through a bunch of things. It's also a great idea to label storm water drain inlets too so that you know what drains to protect.

Maintenance: Fix the problem before it happens. Doing regular maintenance, inspections, and repairs will go a long way in keeping spills from occurring. Follow the appropriate industry inspection and maintenance standards for oil tanks and pipelines, and etc. *(check out CASQA SC-11 for some guidelines)* Check 55-gallon drums to make sure they're in good condition. Make sure containers are stored correctly and aren't going to be knocked over or damaged by moving equipment, and are in good working condition.

Training: As they say, knowledge is power. Train employees, contractors, and workers on how to properly and correctly respond to and cleanup spills. Employees should be familiar with the SPCC plan, procedures, spill equipment and cleanup supplies, spill reporting protocol, as well as educated about aboveground storage tank requirements. In the case of a spill, your team should also be able to easily identify where the nearest drain inlet will discharge so they can knowledgably report and contain the spill. It's also a great idea to train employees on how to respond to illegal dumping incidents.

Put Your Plan Into Action: Suffice it to say, when a spill does occur, it should be taken care of immediately. Using the spill kit and clean up supplies, as quickly and safely as possible, clean up the spill by using absorbents, vacuums, and dry sweeping. The goal is to keep the spill, contaminated material, and residual pollutants from reaching the storm drain or leaving the site. Be sure to look out for traffic which could create trackout during the time of the spill. Attached to the end of this newsletter is what we here at the Rain Events call the Kick the Bucket Drill – a simulated spill scenario which helps train your team on how to respond to emergency situations. Practicing spill procedures and learning how absorbents work and how to respond to a spill in a hands-on manner will greatly help your employees comprehend and learn how to handle a spill in real life. Finally, when a spill occurs, it has to be reported to the Regional Water Quality Control Board, California Office of Emergency Services (CalOES), your local CUPA agency (which could be either the fire department or the County Environmental Health Department), as well as internally within your organization.

Note: Always make sure you know what type of spill you are cleaning up and make sure you're using the proper PPE or hazardous material handling procedures if it's a hazardous material. Safety first!

Spills are something that shouldn't be taken lightly. It's always a great idea to be prepared, proactive, and prompt. And to have measures in place to prevent spills from occurring, or contamination from spreading further than it should.

To help you be prepared for possible spill emergencies, we have attached a *Kick The Bucket Drill* you can do with your team to prepare for spills. It simulates a spill scenario and helps you walk step by step through what you should do! We highly recommend running through this drill several times with your team so you are confident in what to do in the face of an emergency! As they say, "practice makes perfect."

[1]https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/spill-prevention-control-and-countermeasure-19

[2]https://www.epa.gov/sites/production/files/documents/spccbluebroch.pdf

[3]Actually "Tier 3" is not used in the regulations, but for us it seems a natural progression.

The Rain Events

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MORE RESOURCES

+ California Stormwater BMP Handbook SC-11

+ EPA SPCC Fact Sheet

+ EPA SPCC Brochure - A Facility Owner/Operator's Guide to Oil Pollution Prevention

+ Oil Discharge Reporting Requirements

+ Tier 1 Qualified Facility SPCC Plan Template

+ Secondary Containment Calculation Worksheets

+ EPA Bulk Storage Container Inspection Fact Sheet

+ CalOES Reporting Guidelines

Storm Water Contest...

Each month, we invite our readers to participate in a contest to test their knowledge of the Industrial General Permit and show their storm water compliance program. We enter all submittals to our monthly newsletter question into a drawing and one person is selected at random to receive a $25 gift card.

Are you required to sample every storm event, no matter what?

Congratulations to Paul who answered, *"No, you are not required to sample every event no matter what, you're only required to collect samples from 2 qualifying storm events (QSEs) in the first 6 month period from July 1 to December 31 and samples from another 2 QSEs from January 1 to June 30 each year."* We hope you enjoy a delicious burrito from Chipotle!

...This Month's Contest

What does SPCC stand for?

We need industrial storm water sleuths to help us with this month's question. Submit your answers by Friday, December 5th. Email your answer to jteravskis@wgr-sw.com. One winner will be selected by a random drawing to receive a $25 gift card to The Honey Baked Ham Co.

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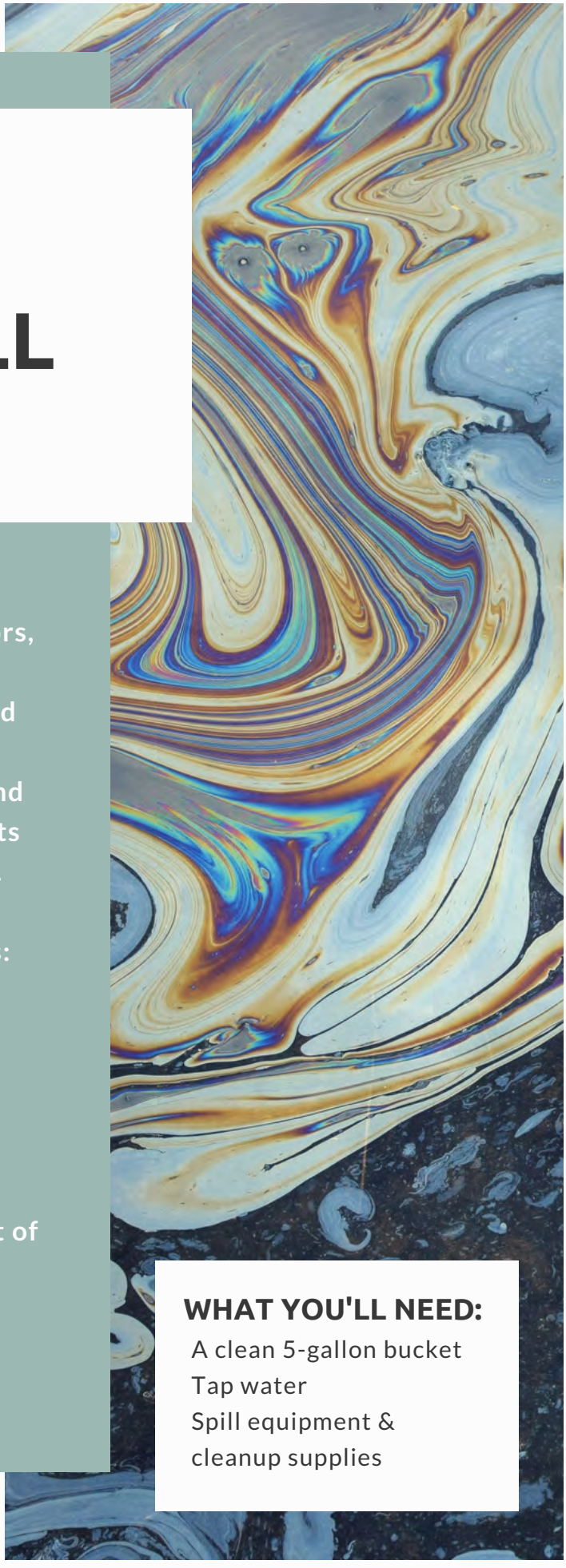

It is necessary and, in many cases, required to train employees, contractors, and other staff on how to respond to a spill. We have found a simple simulated spill to be far more effective in communicating how to properly respond to a spill than by having the participants just listen to a classroom presentation. We call it the Kick-the-Bucket Drill. Here is how this 20-minute drill works:

PREP:

- Fill a clean 5-gallon bucket with tap water.
- Identify a place to stage your drill. Ideally, to make the simulation more interesting, pick a location up-gradient of a drain inlet or where flow leaves your site. Make sure that the location you select is in a safe place away from vehicles or other hazards.

continued...

WHAT YOU'LL NEED:

A clean 5-gallon bucket
Tap water
Spill equipment & cleanup supplies

continued...

- Make sure you know the location of the spill equipment and cleanup supplies. Check to ascertain the condition and stock of supplies. Even if supplies are not adequately stocked or present, the demonstration will be meaningful if everyone else discovers that to be the case. It should lead to some meaningful conversations and, hopefully, decisions.
- Make sure that you have permission to use some of the spill supplies for the spill response simulation.

THE SETUP:

Gather everyone around the bucket. Kick the bucket over while they are watching. Explain the scenario to them while they watch the water flow towards the drain. Say something like: *"The pipefitters were hurrying out the gate to go to lunch and they were in such a hurry that they forgot about the 5-gallon bucket of cutting oil sitting on their tailgate. You walked out of the trailer and discovered this (point to spill)..."*

ASK THE GROUP:

What should you do first? Wait for responses. When someone says spill response supplies should be used ask them...

Where are the supplies located? Wait for a response. If they don't know, tell them where they can be found. Send 2-3 people to go get them. While they are gone looking for and gathering spill supplies, ask the group...

What did those who went to get the supplies not think of? Could vehicle or foot traffic move through this spill zone and make it worse? Instruct 1-2 people to stand in front of the spill zone and direct traffic around it. If traffic cones are available, have someone grab them and set them up.

When those who went to get the cleanup supplies return, ask the group... *continued*

Ask the group questions while you are learning how to respond to and cleanup spills.

continued...

How should we clean up the spill? They should identify the following actions: 1) stop the flow, 2) isolate the spilled material to keep it from going down the drain inlet, 3) recover the spilled material, and 4) clean up the contaminated surfaces and storm water conveyances. You may need to help them walk through these steps. Ask the group...

How can we keep the material from going down the drain? Let them suggest ways. Then ask...

Did any of the spilled material leave the site or go into the drain inlet? It may be obvious. Try to have placed the bucket so that this is unavoidable. Ask the group...

Where does the drain inlet discharge? If they don't know, ask them how they can find out. Then ask...

Is it important to know where the drain inlet discharges? The answer is, obviously, "yes".

Tell the group that the spill has now been contained and for the most part cleaned up.

QUESTIONS:

What do we do about the spilled material that went into the drain inlet, and presumably, off site?

What do we do with the used absorbents and contaminated cleanup supplies?

If the spill was on soil, what do we do with the contaminated soil?

If the spill was on a paved surface, will a sheen or contaminates be present the next time storm water flows across the spill zone? What should be done to keep the sheen or contaminates from being washed off by the next storm event?

Who do we need to tell or report to about this spill? Talk through the notification requirements to CalOES, 911, the local CUPA hazardous materials oversight agency, the Regional Water Quality Control Board, and other agencies.

Be sure to talk about internal company-specific notification, documentation, and reporting requirements.