

# DRAIN TO CONTAIN!

## Managing Portable Containers and Secondary Containments

March 2022

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### Topics

Regulatory Umbrellas

Secondary Containment Inventory

Inspections

Spill Prevention & Reporting



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## What Are Portable Containers?

Buckets, Drums, Totes, ISO-Tanks



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## Secondary Containments

Spill Prevention



### What is Secondary Containment?

- Container/system that collects and captures the entire contents of the largest tank/tote/drum in a containment area.

- Secondary containment could be a pallet designed to catch fluids that leak.



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## Portable Container & Secondary Containment Management at Red Dog

- SPCC - Oil Containers 55-gallons or greater.
- RCRA - Hazardous Waste and Universal Waste
- Red Dog Waste Management Permit - Mill and Water Treatment reagent containment.
- Hazardous Materials Transportation 40 CFR 171-173 - Material Management, shipping containers and chemical storage.
- SWPPP - Stormwater Pollution Prevention Plan.

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## SPCC Spill Prevention, Control & Countermeasures Plan

Updated in 2020 – No Longer Covers Non-SPCC Container Management

### SPCC = Spill Prevention, Control & Countermeasures Plan

- SPCC only regulates substance that are defined as “Oil” in amounts of 55-gallons or greater.
- Oil is defined in federal and state laws:
  - If a product can create a sheen on water, it is considered “Oil”.

Diesel  
Gasoline  
Aviation Fuel  
Jet Fuel  
Motor/Engine Oil  
Used Oil  
Oily Water  
Blasting Emulsion

Hydraulic Fluid  
Transmission Oil  
Lube Oil  
Drive Train Oil  
Gear Oil  
Vegetable Oil  
Lubricants  
MIBC



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## RCRA and Portable Containers

### RCRA = Resource Conservation & Recovery Act

RCRA regulates Hazardous Waste storage and Universal Waste management.



The Central Accumulation Area at the Warehouse and the various Hazardous Waste Satellite Accumulation Areas and Universal Waste Accumulation Areas are managed separately according to federal RCRA regulations and already have an established inspection program in place.

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## Reagents and the ADEC Waste Management Permit



- Reagents are managed inside the mill building as part of the mill process.
- Reagents are also stored at the RO Plant inside connex and on secondary containment as part of water treatment.
- Secondary containment of reagents is a requirement of the Red Dog Waste Management Permit and are inspected once every shift by Mill Operators.

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## Materials Management & Portable Containers

Materials Management transports and stores reagents and other chemicals according to federal Hazardous Material Transportation regulations (40 CFR 171-173).

Materials Management may stage or store portable containers and secondary containment temporarily at many locations around site. However, these are inspected and maintained separately by Materials Management.

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## The SWPPP and Portable Containers

SWPPP

### Storm Water Pollution Prevention Plan

The SWPPP is concerned with protecting storm water and surface water from becoming polluted.

Stormwater regulations are less strict about the use of secondary containment, but do require all chemical and other possible pollutants be prevented from coming into contact with stormwater and are kept out of the creeks and rivers around Red Dog.

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## Portable Containers – Drain to Contain Program



- Small portable containers of “oil” less than 55-gallons.
- Non-hazardous chemicals like: glycol, airport de-icing, & water-based paint.
- Any hazardous reagents stored outdoors while in use, like antiscalant.
- Waste staged for disposal of onsite, like Exploration rock saw waste water.
- Non-hazardous waste, like used glycol.

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## Secondary Containment and Regulatory Compliance



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## Secondary Containment and Regulatory Compliance



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## Before you Create a New (Permanent or Temporary) Secondary Containment...

Things to Consider

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## Permanent vs. Temporary

- Permanent = in use for 6 months or longer.
- Temporary = in use for fewer than 6 months.



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## “Drain to Contain” Portable Containers and Secondary Containment Management SOP

### “Drain to Contain” Portable Container and Secondary Containment Management SOP (Qualtrax #5893)

- Confirming a secondary containment is actually necessary.
- Determining what spill risk is involved, and size and type of containment needed.
- Determining the best type secondary containment options (spill pallet, shipping container, etc.)
- Management aspects: inspections, labeling, disposal of contaminated water, and spill response requirements

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## New Drain to Contain Secondary Containments Review the Criteria

### 1. Is it really necessary?

- Reducing and consolidating the use of secondary containments to reduce the regulatory burden of inspections and man-hours needed to maintain them properly.



### 2. Is it categorized correctly as a Drain to Contain secondary containment?

- No portable oil containers 55-gallons or larger?
- No hazardous waste containers?
- No Universal Waste containers?

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## New Drain to Contain Secondary Containments Criteria

### 3. Has a Risk Analysis been performed to help determine the minimum secondary containment required?

Risk Matrix for Portable Containers				
	Largest Individual Portable Container < 55 Gallons	Largest Individual Portable Container ≥ 55 Gallons	Any Container Outside TSF Drainage	Any Container Near Surface Water
Oil	Low	Within the scope of the SPCC/ODPCP		
Glycols	Low	Medium	Medium	High
Nonhazardous Substances Solids	Low	Medium	Medium	High
Nonhazardous Substances Liquids	Low	Medium	Medium	High
Hazardous Substances Solids	Medium	Medium	Medium	High
Hazardous Substances Liquid	Medium	High	High	High

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## New Drain to Contain Secondary Containments Criteria

### 4. Has the Hierarchy of Secondary Containment Options been applied?

#### Hierarchy of Secondary Containment Options

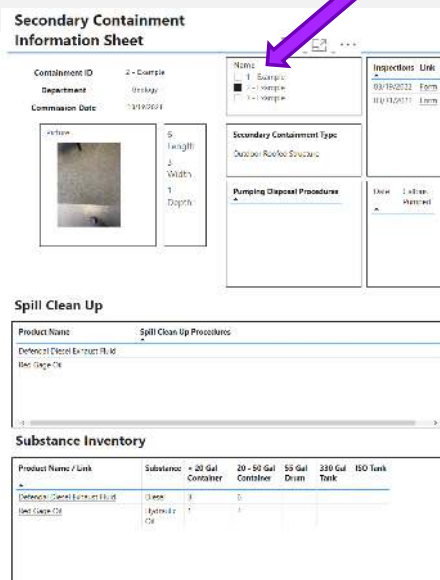
<b>Option 1</b>	Indoor storage of any liquid or solid chemical where spills are contained the substance has increased protection from exposure to precipitation or the environment.
<b>Option 2</b>	Use shipping containers, with liners, as secondary containments and protection from the elements.
<b>Option 3</b>	Outdoor double-walled storage in tanks with built-in secondary containment.
<b>Option 4</b>	Outdoor storage under a roofed structure.
<b>Option 5</b>	Outdoor storage in a self-contained and covered spill pallet.
<b>Option 6</b>	Outdoor storage on an uncovered spill pallet.

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## Secondary Containment Inventory Information Sheet

- When a new, permanent, secondary containment area is created it must be listed in the Red Dog Secondary Containment Inventory by the Project Manager.
- It will be assigned an ID number by Environmental.
- Inspections forms will need to be developed.
- Contact Environmental for further information.



**Secondary Containment Information Sheet**

Containment ID: 2 - Course  
 Department: Drilling  
 Commission Date: 13/10/2014

Name: 1 - Sample  
 2 - Sample  
 3 - Sample

Secondary Containment Type: Double Roofed Structure

Pumping/Disposal Procedures:

Inspection Link: 03/10/2022 Form  
 03/10/2022 Form

Spill Clean Up

Product Name: Spill Clean Up Procedures  
 Defunct Oilfield Extract (R.M.)  
 Red Dog Oil

Substance Inventory

Product Name / Link	Substance	20 gal Container	20 - 50 gal Container	55 gal Drum	200 Gal ISO Tank
Defunct Oilfield Extract (R.M.)	Class	0	0		
Defunct Oilfield Extract (R.M.)	Hydrol	0	0		

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# The Drain to Contain Secondary Containment Inspections

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## Drain to Contain Monthly Inspection

There are four basic questions in the monthly inspection :

- Are all containers clearly labeled?
- Is the area free of leaks and spills?
- Are any specialized spill cleanup materials readily available?
- Is the containment empty, clean?

Portable Container Inspection

Are all containers labeled clearly?\*

N/A Yes No

Secondary Containment Inspection

Area free of leaks or spills?

N/A Yes No

Specialized spill cleanup materials readily accessible?

N/A Yes No

Is containment empty and clean?

N/A Yes No

Problem Description

Multi Photo

Take Photos

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## Portable Container Inspections

### Safety in Labels

- Every container of any kind needs a label!



OSHA  
MSHA  
RCRA  
TECK

- No matter what the acronym, regulatory agencies all require containers to be labeled.

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## New Product Labeling

### Drain to Contain Secondary Containment

An example of a replacement label for a product stored on a Drain to Contain secondary containment.

<b>SAA/OUO/UW ID:</b> PWRH 2016-3  <b>Date First Waste in Container:</b> N/A  <b>Contents:</b> Antiscalant  <b>Process Generating Waste:</b> N/A  <b>Department/Location:</b> Mill Maintenance  <b>Supervisor:</b> Rob Corley  <b>Date Container Filled:</b> N/A <small>(55 gallons maximum)</small>	<b>W/H Container ID:</b> <b>Date Received at Warehouse/CAA:</b> <b>Weight (lbs):</b>  <div style="text-align: center;"> <p><b>AFFIX LABEL HERE</b></p> <p>Hazardous Waste s/c 136954  Non-Hazardous Waste s/c 136955  Hazardous Waste Pending s/c 137017  Universal Waste s/c 135835  Used Oil s/c 65610</p> </div>
---	---

Not a Waste

S/C 58641

RD-171-02

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## Non-Hazardous Waste Labeling

### Drain to Contain Secondary Containment

An example of a replacement label for a product stored on a **Drain to Contain** secondary containment.

SAA/OUO/UW ID: <b>BFM 2016-3</b> Date First Waste in Container: <b>2/2/2021</b> Contents: <b>Used Glycol</b> Process Generating Waste: <b>Boiler Maintenance</b> Department/Location: <b>Mill Maintenance</b> Supervisor: <b>Josh Skeeters</b> Date Container Filled: (55 gallons maximum) RD-171-02	W/H Container ID: Date Received at Warehouse/CAA: Weight (lbs): <div style="border: 1px solid green; padding: 5px; text-align: center;"> <b>NON-HAZARDOUS WASTE</b> </div> Do Not Dispose Without Approval from Environmental Dept. S/C 136955
--	---

**S/C 58641**
**S/C 136955**

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## Portable Container Inspections

- Portable containers need to be leak-proof.
- Larger tanks should have minimal or no corrosion.



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## Spill Response



- Are any specialized spill response materials easily available?
- Check any area spill kits to make sure they are properly stocked.

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## Secondary Containment Inspections

- Secondary containments need to hold liquid, look for stains on the ground from leaks.
- Secondary containments need to be empty of water, dirt, trash and debris, to do their jobs.



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## Secondary Containments and Freeze Up



Remove all liquids from secondary containment, especially prior to freezing conditions.

- If water is present in secondary containment, and it freezes, it is difficult and time-consuming, and sometimes impossible, to remove the ice.
- Prevent spills, and save time, effort, and money by maintaining clean and empty secondary containments!

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## Add a New Substance/Chemical To a Drain To Contain Secondary Containment



During the monthly inspection, if a new substance is added to the inspection form it will automatically upload to the inventory:



- The SDS of the product needs to be reviewed any and changes made to:
  - Pumping/water disposal procedures
  - Spill response

New Substance (Select to add substances observed on containment)

Multi Photo
Take Photos

Comments

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## Pumping Logs

- The Pumping Log provides documentation that proper disposal methods were used.
- Contact your Project Manager for Pumping Log documentation procedures,



### Drain to Contain

Manage

Assigned Users (15)

BU

CA

EL

HE

HE

LO

ME

ME

MI

MI

PR

RD

RO

ST

TR

Assigned Forms (3)

Drain to Contain Inspection Form
Edit

New Secondary Containment Inventory Form
Edit

Secondary Containment Drain/Pump Log
Edit

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## Decommissioning a Permanent Secondary Containment

If a **Drain to Contain** secondary containment is being decommissioned and removed from site, the change needs to be documented in the **Drain to Contain Secondary Containment Inventory**.

- Notify Environmental of the change and we will update the inventory database.



The inventory will be reviewed every year to assess how well Red Dog has met the continuous improvement goals to reduce and consolidate secondary containments where possible.

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## Temporary Secondary Containment Inspections

### Monthly Hazard Recognition Audit



## How to Report Spills

- Tell your Supervisor, or call the Red Dog Spill Line **IMMEDIATELY** at **ext. 45367**.
- The Red Dog Spill Line is answered 24 hours a day, 7 days a week!
- If no response, try one of the following:
  - Call 911, ask for Spill Line.
  - Or, radio the Control Room, Channel 4.

Don't delay spill reporting, it's ok if you don't have all the information at first!

The Environmental Department will determine if the spill is reportable and deal directly with any state or federal agencies if needed.

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## Teck's Commitment to Spill Prevention

***“Achieve and maintain the highest standards for preventing discharges to navigable waters and the environment”***

**Prevent** – Preventing pollution and spills to the environment

**Improve** – Continual improvement in identifying & mitigating risks

**Comply** – Complying with environmental, health & safety regulations, etc.

Failure to comply could lead to Notices of Violation from agencies like ADEC (*Alaska Department of Environmental Conservation*), or worst case, closure of Red Dog Operations.

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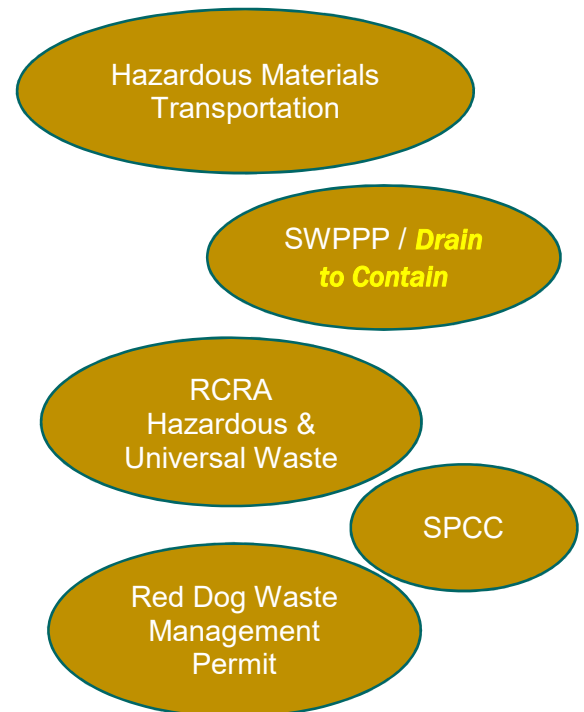
## Environmental Drain to Contain Quiz

		Date:	
Printed Name	Signature		PIN#

- SPCC stands for Spill \_\_\_\_\_, Control, and Countermeasures Plan.
- Oil is defined by federal and state laws, as a product that will create a \_\_\_\_\_ on water.
- If an oil-filled container is less than 55-gallons it is NOT covered under the SPCC Rule.....  
TRUE      FALSE
- RCRA, the Resource Conservation and Recovery Act, regulates \_\_\_\_\_ Waste and \_\_\_\_\_ Waste.
- SWPPP stands for Storm Water \_\_\_\_\_ Plan.
- The SWPPP's goal is to protect streams, rivers, and stormwater from \_\_\_\_\_.

7. Draw a line to the correct regulatory category :

"Oil" in 55-gallon or larger containers: Diesel, Gasoline, Jet Fuel, Engine Oil, Lubricants, Used Oil, Blasting Emulsion, MIBC
Solvents, Leftover Oil-based Paint, Paint Thinners, Adhesives, Gasoline/Water Used Grease/Metals
Lamps, Batteries, Mercury Containing Equipment
"Oil" but in less than 55-gallon containers, also: Reagents, Chemical Products, Used Glycol, Other Non-Hazardous Wastes
Reagent Use in Mill & Water Treatment
Materials Management Transportation, Storage & Delivery of Chemical Products



- The **Drain to Contain Secondary Containment Inventory** is created on a \_\_\_\_\_ form and the final inventory is accessible through the \_\_\_\_\_ website.
- A permanent **Drain to Contain** secondary containment is in active use for 6 months or more, otherwise it is considered a temporary secondary containment and does not have to be added to the **Drain to Contain Secondary Containment Inventory**..... TRUE      FALSE

10. If any flammable or combustible substances are stored on a secondary containment it needs to be reviewed by E&I for proper bonding and grounding for static electricity..... TRUE FALSE
11. It is not necessary to review the SDS of all chemicals being stored on a secondary containment to check flammability, spill cleanup and waste disposal requirements..... TRUE FALSE
12. If you want to add a new chemical to a ***Drain to Contain*** secondary containment you add it to the monthly inspection as a new substance..... TRUE FALSE
13. When it is time to decommission a permanent secondary containment, notify Environmental to update the inventory database ..... TRUE FALSE
14. If a NEW secondary containment is needed, review the revised "***Drain to Contain***" *Portable Container and Secondary Containment Management SOP*, ID# 5893 in \_\_\_\_\_, the document control application.
15. The criteria for establishing a new secondary containment includes:
- A. Necessity
  - B. Spill Risk Analysis
  - C. Correct regulatory umbrella/classification
  - D. All of the above.
16. Number Secondary Containment Options in order of preference:

<b>A</b>	Outdoor storage under a roofed structure or in an unlined shipping container.	
<b>B</b>	Use shipping containers, with liners, as secondary containments and protection from the elements.	
<b>C</b>	Outdoor storage in a self-contained and covered spill pallet.	
<b>D</b>	Outdoor storage on an uncovered spill pallet.	
<b>E</b>	Any liquid or solid chemical storage occurs indoors where spills are contained the substance is protected from contact with the environment.	
<b>F</b>	Outdoor double-walled storage in tanks with built-in secondary containment.	

17. Monthly Inspections are required for temporary secondary containments on the \_\_\_\_\_ Audit.
18. If a product container label becomes illegible it can be replaced with a waste label from the Warehouse (S/C 58641) and write "Not a Waste" in the right-hand box..... TRUE FALSE
19. If there is water in a ***Drain to Contain*** secondary containment, it can be pumped out on the ground as long as there is no sheen on the water ..... TRUE FALSE
20. If there is a spill, you should notify your supervisor, or call the Spill Line (ext. 45367) immediately, even if you don't have all the information (like size of the spill) at first. .... TRUE FALSE



# Quiz Review

Getting it Right

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## Quiz Review

1

SPCC stands for Spill  
\_\_\_\_\_,  
Control, and Countermeasures Plan.

Prevention

2

Oil is generally defined by federal and state  
law, as a product that will create a  
\_\_\_\_\_ on water.

sheen

3

If an oil-filled container is less than 55-gallons  
it is NOT covered under the SPCC Rule.

True

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## Quiz Review

4

RCRA, the Resource Conservation and Recovery Act, regulates \_\_\_\_\_ Waste and \_\_\_\_\_ Waste.

Hazardous and Universal

5

SWPPP stands for Storm Water \_\_\_\_\_ Plan.

Pollution Prevention

6

The SWPPP's goal is to protect streams, rivers, and stormwater from \_\_\_\_\_.

Pollution

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## Quiz Review

7. Draw a line to the correct regulatory category:

"Oil" in 55-gallon or larger containers: Diesel, Gasoline, Jet Fuel, Engine Oil, Lubricants, Used Oil, Blasting Emulsion, MIBC

Solvents, Leftover Oil-based Paint, Paint Thinners, Adhesives, Gasoline/Water Used Grease/Metals

Lamps, Batteries, Mercury Containing Equipment

"Oil", but in less than 55-gallon containers, also: Outdoor Reagent Storage, Chemical Products, Used Glycol, Other Non-Hazardous Wastes

Reagent Use in Mill and Water Treatment

Materials Management Transportation, Storage & Delivery of Chemical Products.

Hazardous Materials Transportation

SWPPP  
Drain to Contain

RCRA  
Hazardous & Universal Waste

SPCC

Red Dog  
Waste Management Permit

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## Quiz Review

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The **Drain to Contain Secondary Containment Inventory** is created on a \_\_\_\_\_ form and the final inventory is accessible through the \_\_\_\_\_ website.

FastField,  
Rover

9

A permanent **Drain to Contain** secondary containment is in active use for 6 months or more, otherwise it is considered a temporary secondary containment and does not have to be added to the **Drain to Contain Secondary Containment Inventory**

True

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## Quiz Review

10

If any flammable or combustible substances are stored on a secondary containment it needs to be reviewed by E&I for proper bonding and grounding for static electricity.

True

11

It is not necessary to review the SDS of all chemicals being stored on a secondary containment to check flammability, spill clean up and waste disposal requirements.

False

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## Quiz Review

12

If you want to add a new chemical to a permanent **Drain to Contain** secondary containment you add it to the monthly inspection as a new substance.

True

13

When it is time to decommission a permanent secondary containment, notify Environmental to update the inventory database.

True

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## Quiz Review

14

If a NEW secondary containment is needed, review the revised "Drain to Contain" Portable Container and Secondary Containment Management SOP, ID # 5893 in \_\_\_\_\_, the document control application.

Qualtrax

15

The criteria for establishing a new secondary containment includes:

- A. Necessity,
- B. Spill Risk Analysis,
- C. Correct regulatory umbrella/classification,
- D. All of the above.

D. All of the above

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## Quiz Review

### 16. List Secondary Containment Options in order of preference:

A	Outdoor storage under a roofed structure or in an unlined shipping container.	4
B	Use shipping containers, with liners, as secondary containments and protection from the elements.	2
C	Outdoor storage in a self-contained and covered spill pallet.	5
D	Outdoor storage on an uncovered spill pallet.	6
E	Indoor storage of any liquid or solid chemical where spills are contained and the substance has increased protection from exposure to precipitation or the environment.	1
F	Outdoor double-walled storage in tanks with built-in secondary containment.	3

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## Quiz Review

17

Monthly Inspections are required for **temporary** secondary containments on the \_\_\_\_\_ Audit.

Hazard  
Recognition

18

If a product container label becomes illegible it can be replaced with a waste label from the Warehouse (S/C 58641) and write "Not a Waste" in the right-hand box.

True

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## Quiz Review

19

If there is water in a **Drain to Contain** secondary containment, it can be pumped out on the ground as long as there is no sheen on the water.

False

20

If there is a spill, you should notify your supervisor, or call the Spill Line (ext. 45367) immediately, even if you don't have all the information (like size of the spill) at first.

True

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## Any Questions?

Environmental is here to help!

[Environmental.reddog@teck.com](mailto:Environmental.reddog@teck.com)

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