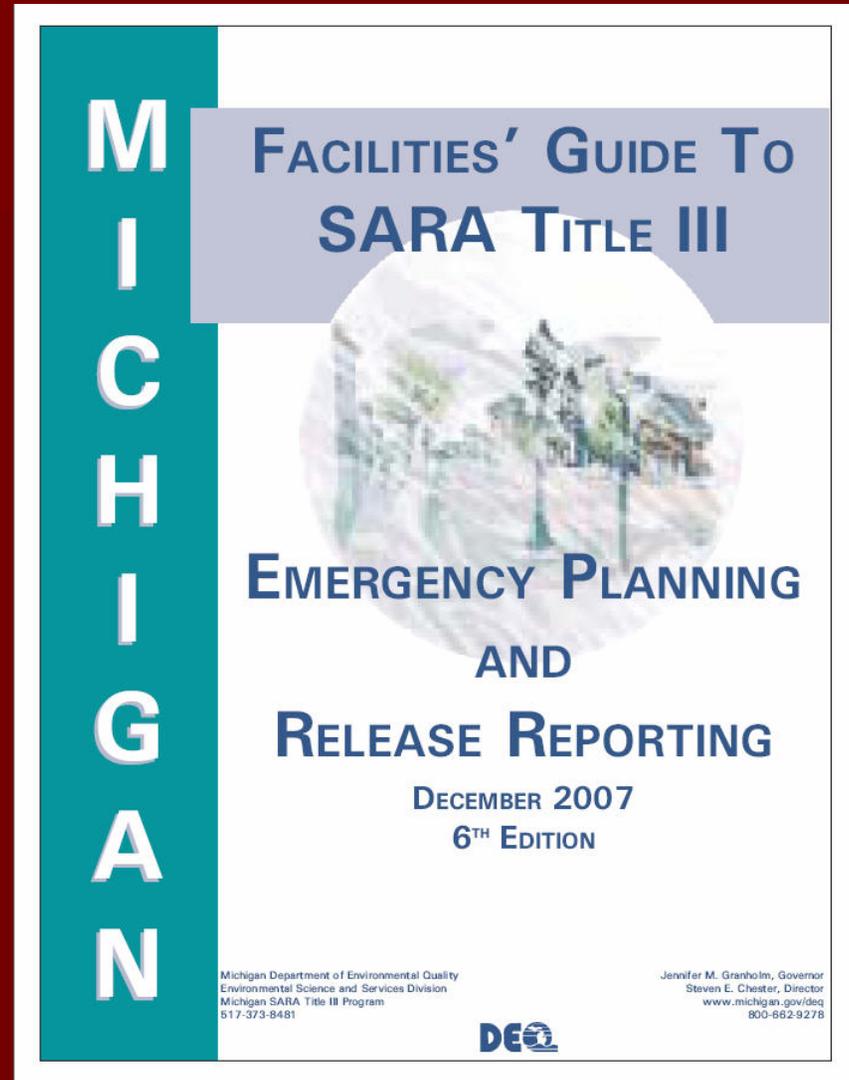


**FOR CLASS USE  
ONLY**

**PLEASE DO NOT  
TAKE THIS WITH  
YOU.**

**It is available at:**

**[www.michigan.gov/deqsara](http://www.michigan.gov/deqsara)**



An outline map of Michigan is shown in the background. The upper portion of the map is partially obscured by the title text. The lower portion of the map shows the state's internal county boundaries.

**RELEASE NOTIFICATION  
REQUIREMENTS IN MICHIGAN  
Part 2 - EXAMPLES**

**Susan Parker**  
**Michigan**  
**SARA Title III**  
**Program**  
**June 2008**

# IF THERE IS A RELEASE

## 1. Notify

- 911
- PEAS
- NRC

## 2. Respond

## 3. Follow-up

- Investigate
- Calculate
- Report



# RELEASE EXAMPLE 1

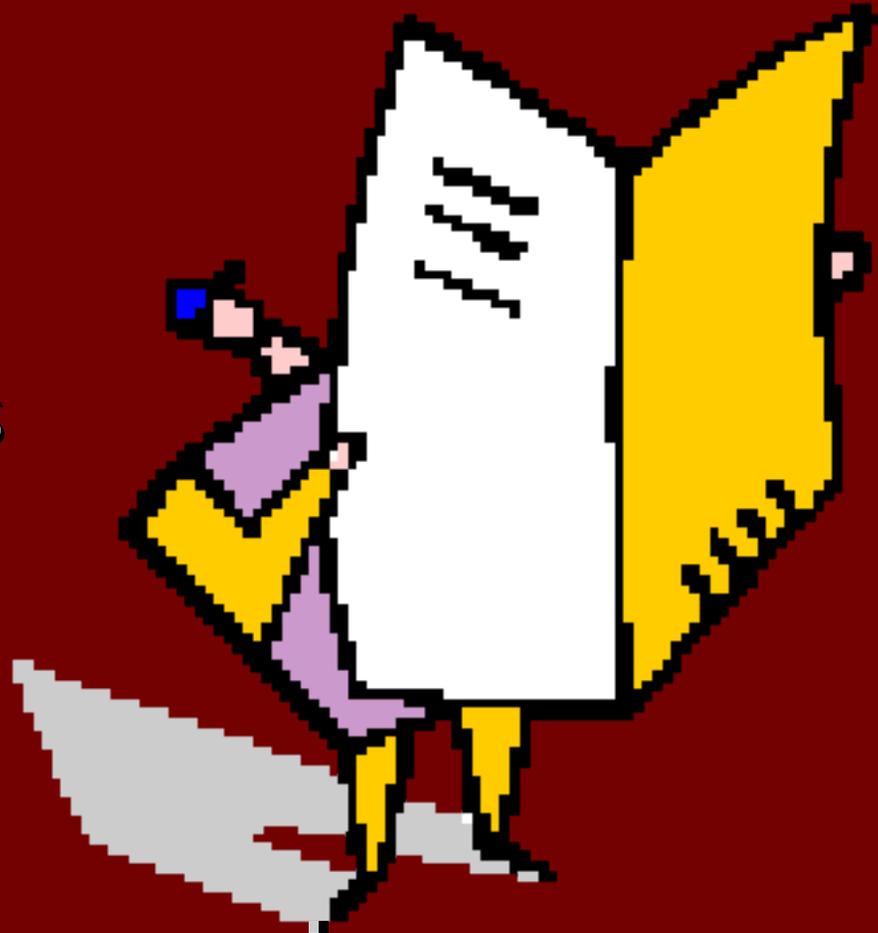
**A facility accidentally releases 50 gal of chlorine bleach into a drain.**



# EXAMPLE 1

## Chlorine Bleach Release

The MSDS for  
Chlorine  
Bleach is in  
your handouts



# EXAMPLE 1

## Calculate Release

1. Identify the hazardous ingredients and weight % in Chlorine Bleach
2. Calculate the weight of the released Chlorine Bleach.
3. Calculate the weight of the released hazardous ingredients.
4. Compare to Reportable Quantity (RQ).  
(The **RQ** depends on the regulation.)

# 1. Identify hazardous ingredients in Chlorine Bleach

- Sodium Hypochlorite
- CAS = 7681-52-9
- Weight % = 15% (0.15)



## 2. Calculate weight of Chlorine Bleach

**50 gal** of Chlorine Bleach

x

Specific Gravity (relative density) on MSDS: **1.21**

x

Weight of water: **8.34 lbs/gal**

=

Chlorine Bleach released: **504.6 lbs**

### 3. Calculate the weight of the released hazardous ingredients

- Sodium Hypochlorite = 15% of 504.6 lbs  
= 75.7 lbs



## 4. Compare to the RQ

- Sodium Hypochlorite
- CAS = 7681-52-9
- Released amount = **75.7 lbs**
- CERCLA RQ = **100 lbs**
- SARA EHS RQ = **N/A**
- Part 5 Rules TRQ = **10 lbs**
- SARA Toxic? **NO**

# What Regulations Apply to the Release of Chlorine Bleach?

- Fire Prevention Code sect 29.5g
- NREPA part 31 (Part 5 Rules)

# RELEASE EXAMPLE 2

A facility accidentally releases 1000 gal of a 50% truck wash solution to the ground right after taking delivery at the loading dock.



# EXAMPLE 2

## Truck Wash Release

The MSDS for Truck Wash Concentrate is on **pg. 3-23** of the SARA Title III Guidebook...

**That's the book you will return when this class is over !**

# EXAMPLE

## Calculate Release

1. Identify the hazardous ingredients and weight % in Truck Wash Concentrate
2. Calculate the weight of the released Truck Wash Concentrate.
3. Calculate the weight of the released hazardous ingredients.
4. Compare to RQ. (The RQ depends on the regulation.)

# 1. Identify hazardous ingredients in Truck Wash Concentrate

➤ Hydrofluoric Acid → 7664-39-3

Weight % < 20% (0.20)

➤ Sulfuric Acid → 7664-93-9

Weight % < 10% (0.10)

➤ Phosphoric Acid → 7664-38-2

Weight % < 5% (0.05)



## 2. Calculate weight of Truck Wash Concentrate

1000 gals of a 50% truck wash solution =  
500 gal of Truck Wash Concentrate

x

Specific Gravity (relative density) on MSDS: 1.10

x

Weight of water: 8.34 lbs/gal

=

Truck Wash Concentrate released: 4587 lbs

### 3. Calculate the weight of the released hazardous ingredients

- Hydrofluoric Acid = 20% of 4587 lbs  
= **917 lbs**
- Sulfuric Acid = 10% of 4587 lbs  
= **459 lbs**
- Phosphoric Acid = 5% of 4587 lbs  
= **229 lbs**

## 4a. Compare to the RQ

- Hydrofluoric Acid
- CAS = 7664-39-3
- Released amount = 917 lbs
- CERCLA RQ = 100 lbs
- SARA EHS RQ = 100 lbs
- Part 5 Rules TRQ = 10 lbs
- SARA Toxic? YES

## 4b. Compare to the RQ

- Sulfuric Acid
- CAS = 7664-93-9
- Released amount = 459 lbs
- CERCLA RQ = 1000 lbs
- SARA EHS RQ = 1000 lbs
- Part 5 Rules TRQ = 100 lbs
- SARA Toxic? Aerosol form only

## 4c. Compare to the RQ

- Phosphoric Acid
- CAS = 7664-38-2
- Released amount = 229 lbs
- CERCLA RQ = 5000 lbs
- SARA EHS RQ = none
- Part 5 Rules TRQ = 500 lbs
- SARA Toxic? NO

# What Regulations Apply to the Release of Truck Wash Concentrate?

- SARA Title III sect 304
- CERCLA sect 103
- NREPA part 201
- Fire Prevention Code sect 29.5g
- NREPA part 31 (Part 5 rules)
- SARA Title III sect 313 (potentially)

# Written Follow-Up Report

## Send Follow-Up Report to:

- LEPC(s)
- Michigan SARA Title III Program
- DEQ-RRD – if requested
- DEQ-WB
- Local Health Dept
- EPA & MI SARA Title III Program (if SARA Title III sect 313 applies)

# RELEASE EXAMPLE 3

A hose breaks as a transport tanker is offloading anhydrous ammonia to a farmer's fixed tank.



# The Facts about the Release

- **Anhydrous Ammonia is a pure substance.**
- **Approx 920 lbs were released**



# The Facts about the Release

- No one was hospitalized
- No one was evacuated
- The local road was closed for 1 hr



# **EXAMPLE**

## **Ammonia Release**

**Released amount is known.**

**1. Compare to RQ.**

**2. What regulations apply**

**3. Who should report and to Whom?**

**4. What follow-up reports must be sent to Whom and When?**

# 1. Compare to the RQ

- Anhydrous Ammonia
- CAS = 7664-41-7
- Released amount = 920 lbs
- CERCLA RQ = 100 lbs
- SARA EHS RQ = 100 lbs
- Part 5 Rules TRQ = 10 lbs
- SARA Toxic? YES

## **2. What Regulations Apply?**

- 1. SARA Title III sect 304**
- 2. CERCLA sect 103**
- 3. NREPA part 201**
- 4. Fire Prevention Code sect 29.5g**
- 5. 49 CFR 171 Transportation**

### **3. Who Should Report and to Whom?**

- 1. Owner or operator (O/O) to LEPC & SERC (PEAS)**
- 2. Person in charge of Tank Truck to NRC**
- 3. O/O to DEQ-RRD or PEAS, & MDA**
- 4. O/O to local fire dept (911)**
- 5. Person in physical possession of ammonia to NRC**

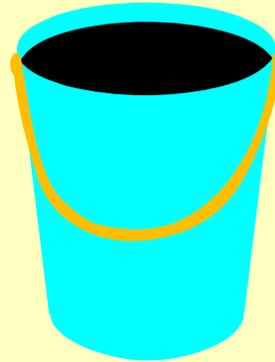
***Trucking company is responsible for all notifications***

## **4. Follow-up Reports must be sent to Whom and When?**

- 1. To LEPC & SERC within 7 days**
- 3. To DEQ-RRD district supervisor upon request**
- 5. US DOT within 30 days**

# IMPORTANT !

**ALL RELEASES  
MUST BE  
CLEANED UP**  
– even if not  
reportable.



# Test Your Understanding

During a wind storm, a tree fell on a **500 gal AST** at your facility spilling approximately **400 gallons** of gasoline onto the ground. Your employees were able to recover about **100 gallons** before it seeped into the ground. The power went out, but you could not run the generator because you had no more fuel.

# Test Your Understanding

The MSDS for Gasoline is on **pg. 6-19** of the SARA Title III Guidebook...

**That's the book you will return when this class is over !**

# Test Your Understanding

1. Who should you call?
2. How many pounds of gasoline were released to the environment?
3. How many pounds of benzene were released to the environment?
4. Compare released benzene to the RQs.
5. What regulations apply?
6. Why is this release not reportable under the Part 5 Rules?

# Test Your Understanding

## 1. Who should you call?

- **911**
- **PEAS**
- **NRC**

# Test Your Understanding

2. How many pounds of gasoline were released to the environment?

400 gal of Gasoline

x

Specific Gravity on MSDS: 0.75

x

Weight of water: 8.34 lbs/gal

=

Gasoline Released: 2520 lbs

# Test Your Understanding

3. How many pounds of benzene were released to the environment?

$$\begin{array}{r} \underline{2520} \text{ lbs gasoline} \\ \times \\ \underline{5\% (0.05)} \% \text{ benzene} \\ = \\ \underline{126} \text{ lbs benzene} \end{array}$$

# Test Your Understanding

## 4. Compare to the RQ

- Benzene
- CAS = 71-43-2
- Released amount = 126 lbs
- CERCLA RQ = 10 lbs
- SARA EHS RQ = N/A
- Part 5 Rules TRQ = 10 lbs
- SARA Toxic? YES

# Test Your Understanding

## 5. What regulations apply?

**CERCLA reportable releases exclude  
“petroleum, including crude oil or any  
fraction thereof.”**

- **NREPA Part 201**
- **Fire Prevention Code sect 29.5g**
- **Fire Prevention Code Part 2 ...**
- **SARA Title III sect 313 (potentially)**

# Test Your Understanding

6. Why is this release not reportable under the Part 5 Rules?

Facility is not subject to the Part 5 Rules – it does not meet definition of an oil storage facility.

Threshold management quantity for “oil” is 1320 gal total or 660 gal in a single tank.

# WE'RE DONE !

- **QUESTIONS ?**
- **PLEASE  
COMPLETE THE  
ONLINE  
EVALUATION**



**PLEASE LEAVE  
THIS ON THE  
TABLE.**

**It is available  
at:**

**[www.michigan.gov/deqsara](http://www.michigan.gov/deqsara)**

