Discovery of contamination, release reporting, and corrective measures

101 Series



Air & Waste Management Association Florida Section Annual Conference October 25, 2017

EVERYONE GO TO IXAHOOTLIT



Join this **Survey** at **kahoot.it**

with Game PIN:

667988

Kahoot!

F. Joseph Ullo, Jr. Florida DEP Angela Morrison, Morrison Law Max Lee, Koogler & Associates

ROLE PLAYING EXERCISE + QUIZ

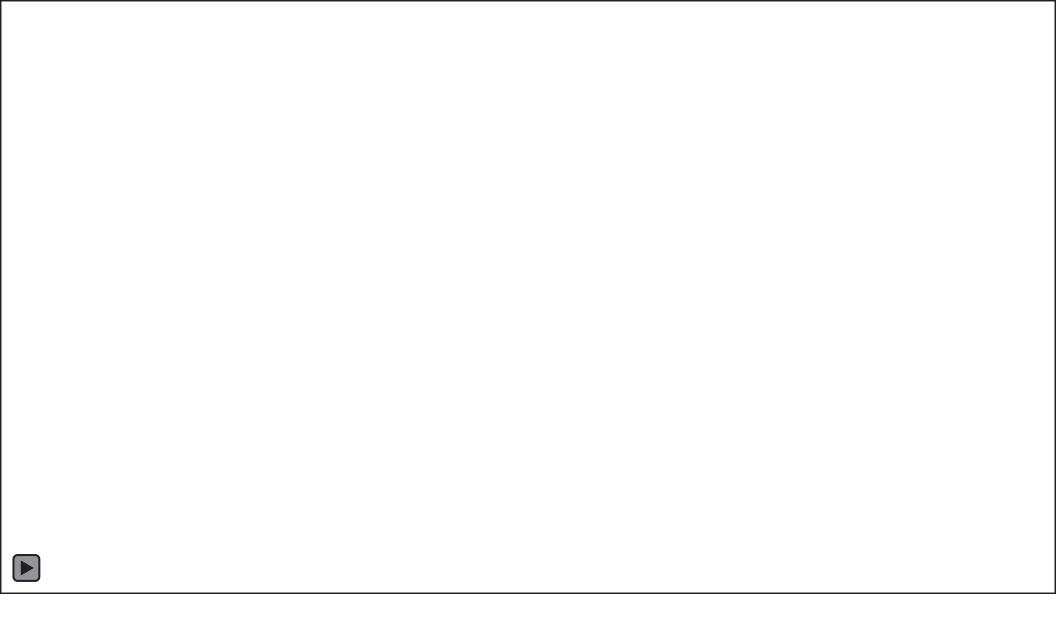
 You are an environmental manager at a chemical plant

• It's 9 am. You've just arrived at work and are enjoying a cup of coffee. You are about to turn on your computer when ...

You hear something ... loud ...



click arrow below to run the video





SCENARIO ASSUMPTIONS

- 9:01 am explosion at a chemical plant in Florida, which is subject to a Title V air permit
- The explosion appears to have occurred near a coal gasification unit where equipment convert coals to a synthetic natural gas



YOUR FIRST INSTINCT

What would you do?



YOUR FIRST INSTINCT

What would you do?

- Call 911
- Shelter in place or flee, depending on location
- Follow established procedures for emergencies
- Check on fellow employees
- Notify neighbors



ENVIRONMENTAL MANAGER RESPONSIBILITIES

What about you? As the plant's environmental manager? You have to think about:

Emergency Release Reporting



ENVIRONMENTAL MANAGER RESPONSIBILITIES

Emergency Release Reporting

- CERCLA reporting (Comprehensive Environmental Response, Compensation, and Liability Act, known also as Superfund)
- EPCRA reporting (Emergency Planning and Community Right to Know Act)
- Florida's new pollution reporting statute
- State air permitting requirements



RELEASE REPORTING

As the **Environmental Manager**, you are expected to:



RELEASE REPORTING

As the **Environmental Manager**, you are expected to:

- determine the source of any emissions or releases
- attempt to determine which pollutants might be emitted
- try to estimate the quantity of those pollutants that might have been emitted
- consider whether those emissions could potentially cross the property boundary
- consider potential harm from the release



RELEASE REPORTING

As the Environmental Manager in this situation, you might assume:

- Unplanned release of products of combustion; potentially others?
- At least some of these emissions might travel offsite (based on visual plume)



CERCLA (a/k/a Superfund) requires the *immediate* reporting when a listed hazardous substance is released to the environment at or above its reportable quantity within a 24-hour period. See CERCLA Section 103.



EPCRA (Emergency Planning and Community Right to Know) requires immediate reporting of extremely hazardous substances when released into the environment at or above a reportable quantity that crosses the property boundary.







Under CERCLA and EPCRA, releases to the "environment" include releases to:

- A. Land
- B. Water
- C. Air
- D. All of the above





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- A. Land
- B. Water
- C. Air
- D. All of the above



To determine the reportable quantities of various pollutants under the CERCLA and EPCRA programs (necessary to determine if reporting is triggered) the best place to look is:

- A. Google
- B. List of Lists



- C. Call a friend (a/k/a your attorney or consultant)
- D. The facility's 112(r) Risk Management Plan



To determine the reportable quantities of various pollutants under the CERCLA and EPCRA processing and sold Week a

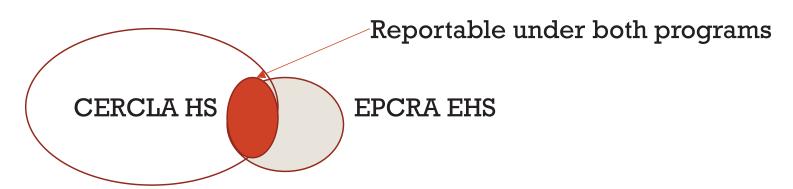
B. List of Lists

Consolidated List of Chemicals
Subject to the Emergency
Planning and Community RightPlanning and Community RightTo-Know Act (EPCRA),
Comprehensive Environmental
Response, Compensation and
Response, Compensation and
Liability Act (CERCLA) and
Liability Act (CERCLA) and
Section 112(r) of the Clean Air Act
Section 302 Extremely Hazardous Substances
CERCLA Hazardous Substances
Release Prevention



PRACTICE POINTER

- CERCLA hazardous substances are in one list (about 800)
- EPCRA extremely hazardous substances are in one list (about 360)
- Some substances on the CERCLA list are also on the EPCRA list (so reporting potentially required under both programs)





NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Malononitrile	109-77-3	500/10,000	1,000	1,000	313	U149	
Maneb	12427-38-2				313		
Manganese	7439-96-5				313		
Manganese, bis(dimethylcarbamodithioato-S,S')-	15339-36-3			10	313c	P196	
Manganese Compounds	N450			&	313		
Manganese, tricarbonyl methylcyclopentadienyl	12108-13-3	100	100		313c		
MBOCA	101-14-4			10	Х	U158	
MBT	149-30-4				Х		
MCPA	94-74-6				Х		
MDI	101-68-8			5,000	Х		
Mechlorethamine	51-75-2	10	10		Х		
Mecoprop	93-65-2				313		
Melphalan	148-82-3			1		U150	
Mephosfolan	950-10-7		500				
2-Mercaptobenzothiazole	149-30-4				313		
Mercaptodimethur	2032-65-7			10		P199	
Mercuric acetate	1600-27-7				313c		
Mercuric chloride	7487-94-7	500/10,000	500		313c		
Mercuric cyanide	592-04-1			1	313c		
Mercus of Solid Waste	10045-94-0			10	313c		
nited States nivironmental Protection Emergency Response Emergency Response	21908-53-2	500/10,000	500		313c		
Nation in the state of the stat	7783-35-9			10	313c		
	592-85-8			10	313c		
LIST OF LISTS	7782-86-7			10	313c		
ricals.	10415-75-5			10	313c		
used List of Chemicals	7439-97-6			1	313	U151	
Consolidated List of Chemicals Subject to the Emergency Subject to the Community Right-	N458			&	313		
Subject to and Community (18)	628-86-4			10	313c	P065	

Planning and Community
Planning and Community
To-Know Act (EPCRA),
To-Know Act (EPCRA),
Comprehensive Environmental
Response, Compensation and
Response, Compensation and
Liability Act (CERCLA) and
Liability Act (CERCLA)



What does EPA consider to be "immediate" notification after the plant management *knew* or "should have known" that a reportable release has occurred?

- A. Within 24 hours
- B. Within one business day
- C. Within an hour
- D. Within fifteen minutes





What does EPA consider to be "immediate" notification after the plant management *knew* or "should have known" that a reportable release has occurred?

- A. Within 24 hours
- B. Within one business day
- C. Within an hour
- D. Within fifteen minutes



Who do you **call**?



Who do you **call**?

CERCLA: National Response Center

EPCRA: State Emergency Response

Commission (SERC) AND

Local Emergency Planning

Committee (LEPC)



Who do you call IF YOU'RE IN FLORIDA?



Who do you call <u>IF YOU'RE IN FLORIDA</u>?

CERCLA: National Response Center

1-800-424-8802

and

State Warning Point a/k/State Watch Office

(per 62-150.300, F.A.C.) 1-800-320-0519



Who do you call <u>IF YOU'RE IN FLORIDA</u>?

EPCRA: For SERC and LEPC - one call

State Warning Point a/k/State Watch Office 1-800-320-0519



If a third party calls 911, and the fire department and fire trucks are on the scene, the plant management <u>must also</u> make the appropriate calls to SERC, LEPC, and NRC?

True or false?





TRUE

EPA has taken the position that even though the fire department is on the scene, plant management remains responsible for contacting the NRC, the SERC, and the LEPC "immediately" upon actual or constructive knowledge of a reportable release. (Three separate requirements)



What information should you be prepared to provide when you make the call?



What information should you be prepared to provide when you make the call?

- Chemical name and whether the substance is hazardous or extremely hazardous
- Time and duration of release
- Reason and cause of release
- Whether the release occurred into air, water, and/or land, and name of affected waterway if applicable
- Any known or anticipated acute or chronic health risks associated with the emergency, and where necessary, advice regarding medical attention for exposed individuals



What information should you be prepared to provide when you make the call?

- Proper precautions, such as evacuation or sheltering in place
- Name and telephone number of contact person
- Number/type of injuries or fatalities
- Any fires, explosions, evacuations or road/waterway closures
- What clean-up efforts have been performed if any
- Agencies responding and any state assistance requested
- Critical Infrastructure/Key Resources threatened
- Wind direction, temperature, wind speed



Follow-up written notice is required for what types of releases?

- A. CERCLA
- B. EPCRA



- C. Those reported to National Response Center
- D. All of the above



Follow-up written notice is required for what types of releases?

- A. CERCLA
- B. EPCRA (report to State Warning Point/State Watch Office)
- C. Those reported to National Response Center
- D. All of the above



WHAT REALLY HAPPENED OCTOBER 4, 2017

- ~ 10:00 explosion at chemical plant
- 10:19 am call to 911 with immediate response from fire department
- 10:31 am call to National Response Center hydrogen sulfide release (HS and EHS; above permitted limits; no release offsite)
- 11:06 am call to National Response Center unknown chemicals in unknown quantities potentially released
- No injuries beyond first aid



NATIONAL RESPONSE CENTER

Incoming calls:

1192249 10/4/17 **10:31** 10/4/17 10:36

1192254 10/4/17 **11:06** 10/4/17 11:11



NATIONAL RESPONSE CENTER

11:06

CALLER IS REQUESTING TO UPDATE REPORT NUMBER 1192249: CALLER STATES THAT THERE HAVE BEEN ADDITIONAL EXPLOSIONS ON SCENE AND THE RELEASE IS NO LONGER SECURE. THE FIRE DEPARTMENT IS ON SCENE AT THIS TIME. CALLER ALSO STATES THAT THERE MAY BE ADDITIONAL RELEASES OF AN UNKNOWN CHEMICAL ON SCENE.

10:31 ORIGINAL NARRATIVE:

THE CALLER IS REPORTING THAT THERE WAS AN EQUIPMENT MALFUNCTION THAT CAUSED THE RELEASE OF HYDROGEN SULFIDE INTO THE AIR.



PREPARING FOR A RELEASE

- Checklist ready to go in one place. Regularly Update!
- What are the likely chemical releases and what are the reportable release quantities?

Look at the List of Lists before the accident!



The explosion has obviously resulted in an upset condition for the plant. You believe some permitted emission units are adversely affected. There could be H2S emissions above permitted levels – as a result of incident.

Under the air permit, when must you notify the state (or appropriate local program)?

- A. Within 24 hours after the explosion (event leading to upset)
- B. Within 24 hours after you confirm that unauthorized excess emissions have occurred
- C. The next business day after you confirm that unauthorized excess emissions have occurred
- D. Not required because the permit authorizes excess emissions due to malfunctions

The explosion has obviously resulted in an upset condition for the plant. You believe some permitted emission units are adversely affected. There could be H2S emissions above permitted levels – as a result of incident.

Under the air permit, when must you notify the state (or appropriate local program)?

62-4.130 Plant Operation - Problems.

If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules.



The explosion has obviously resulted in an upset condition for the plant. You believe some permitted emission units are adversely affected. There could be H2S emissions above permitted levels – as a result of incident.

Under the air permit, when must you notify the state (or appropriate local program)?

62-4.160(8)

- (b) Notification of any noncompliance which may endanger health or the environment, including the release of any hazardous waste that may endanger public drinking water supplies or the occurrence of a fire or explosion from the facility which could threaten the environment or human health outside the facility, shall be reported verbally to the Department within 24 hours, and a written report shall be provided within 5 days. The verbal report shall include the name, address, I.D. number, and telephone number of the facility, its owner or operator, the name and quantity of materials involved, the extent of any injuries, an assessment of actual or potential hazards, and the estimated quantity and disposition of recovered material. The written submission shall contain:
- 1. A description and cause of the noncompliance.
- 2. If not corrected, the expected time of correction, and the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
- (c) Reports of compliance or noncompliance with, or any progress reports on, requirements in any compliance schedule shall be submitted no later than 14 days after each schedule date.



The explosion has obviously resulted in an upset condition for the plant. You believe some permitted emission units are adversely affected. There could be H2S emissions above permitted levels – as a result of incident.

Under the air permit, when must you notify the state (or appropriate local program)?

A. Within 24 hours after the explosion (event leading to upset)



Brief History of FDEP Pollution Reporting Statute

Details of the statute and related rulemaking

(proposed rule to be issued soon!)

How to handle this Event

- If this event is in Florida, does the event cause a "reportable pollution release"?
- Who must make the report?
- When must the report be made?
- How must the report be submitted?
- Must there be any follow up notice?



- Public Notification of Pollution is required pursuant to Section 403.077, Florida Statutes. It includes 5 parts –
- (1) Definition of Reportable Pollution Release
- (2) Owner and Operator Responsibilities
- (3) Department Responsibilities
- (4) Liability concerns
- (5) Violations and Penalties



FLORIDA'S NEW POLLUTION REPORTING STATUTE — OWNERS/OPERATORS

- Know your facilities and reporting requirements (rule, permit, variance, order). See Section 403.077(2)(a), F.S.
- Reports can be amended or withdrawn if necessary. See Section 403.077(2)(c), F.S.
- Additional notice within 24 hours needed if off-installation migration is detected. See Section 403.077(2)(d), F.S.
- The statute does not impose any new reporting requirements beyond what is already required.



FLORIDA'S NEW POLLUTION REPORTING STATUTE — DEPARTMENT

- Publish all notices within 24 hours of receipt. See Section 403.077(3)(a), F.S.
- Maintain electronic mailing lists allowing public, including local governments, health departments, news media, and other interested persons to sign up for notices. See Section 403.077(3)(b), F.S.
- Failure to provide the notification required by subsection (2) shall subject the owner or operator to the civil penalties specified in Section 403.121, F.S. (up to \$10,000 per day). See Section 403.077(5), F.S.

• This is likely a "reportable pollution release"

True or false?





• This is likely a "reportable pollution release"

True

• TRUE - The presumptive release of H2S is not authorized by law, FDEP rule, permit, order, or variance.

See Section 403.077(2)(a), F.S.

- 62-150.300, F.A.C. requires State Warning Point reporting
- If not true by further review, then you can amend the notice.



- Who must make the report?
 - The Owner or Operator of the installation at which the release occurs.

See Section 403.077(2)(a), F.S.

Not the neighbor or your best friend!



• When must the report be made?

- A. Within 24 hours
- B. Within one business day
- C. Within an hour
- D. Within fifteen minutes





• When must the report be made?

A. Within 24 hours

• Within 24 hours after the owner or operator discovery of the release See Section 403.077(2)(d), F.S.



- A. By calling State Watch Office
- B. On-line FDEP reporting Website
- C. Both





• How must the report be submitted?

- A. By calling State Watch Office (This is already required by EPCRA!)
- B. On-line FDEP reporting Website
- C. Both

You would have already called EPCRA For SERC and LEPC – one call

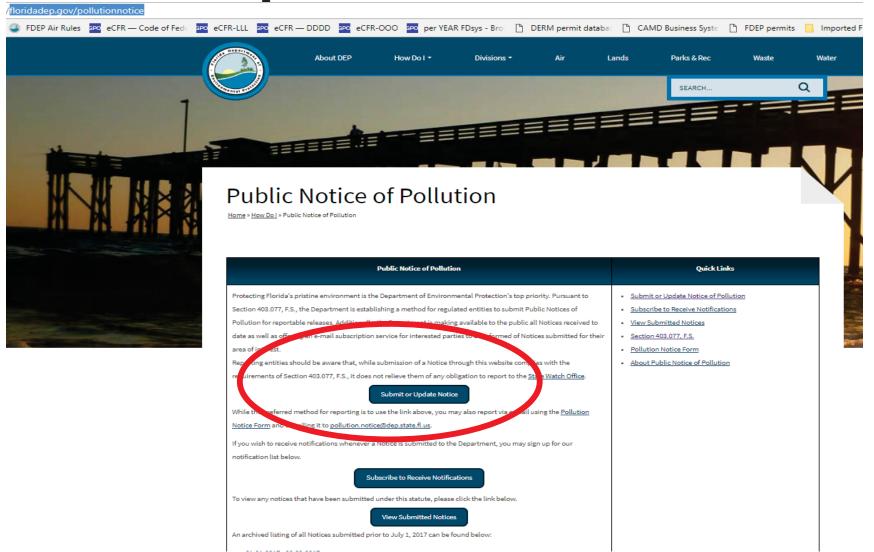
State Warning Point a/k/State Watch Office 1-800-320-0519



• How must the report be submitted?

floridadep.gov/pollutionnotice





NOTICE TYPE *	
☐ Initial Notice of Pollution	
□ Updated Notice of Pollution	
If this is an updated Notice, DEP Incident ID:	
INCIDENT INFORMATION	
lease enter a name for the Incident:	
State Watch Office Incident Number or Case ID:	
Incident Report (Please enter a complete description of the incide Watch Office, you may copy that and paste it here): *	nt. If you have a summary e-mail from the Stat



Incident Location (in Decimal Degrees): *					
Latitude:	Longitude: _				
Please select all counties directly affected by the Incident: *					
☐ Alachua	□ Duval	☐ Holmes	☐ Miami-Dade	☐ Seminole	
□ Baker	☐ Escambia	☐ Indian River	☐ Monroe	☐ St. Johns	
□ Bay	☐ Flagler	□ Jackson	□ Nassau	☐ St. Lucie	
☐ Bradford	☐ Franklin	☐ Jefferson	□ Okaloosa	□ Sumter	
☐ Brevard	☐ Gadsden	☐ Lafayette	□ Okeechobee	☐ Suwannee	
☐ Broward	☐ Gilchrist	☐ Lake	□ Orange	☐ Taylor	
☐ Calhoun	☐ Glades	□ Lee	□ Osceola	☐ Union	
☐ Charlotte	☐ Gulf	☐ Leon	☐ Palm Beach	□ Volusia	
☐ Citrus	☐ Hamilton	□ Levy	□ Pasco	□ Wakulla	
□ Clay	☐ Hardee	☐ Liberty	□ Pinellas	□ Walton	
Collier	☐ Hendry	■ Madison	□ Polk	■ Washington	
☐ Columbia	☐ Hernando	☐ Manatee	□ Putnam		
□ DeSoto	☐ Highlands	☐ Marion	☐ Santa Rosa		
□ Dixie	☐ Hillsborough	☐ Martin	Sarasota		
Start Date and Time of Incident: *					
Is the Incident on-going?: *					
If No, End Date and Time of Incident:					
Has the pollution migr	ated off-site from the Ir	ocident?:			
		which the Incident has	migrated		

Has the pollution migrated off-site from the Incident?: ☐ Yes ☐ No								
If Yes, please select any county(les) to which the Incident has migrated: *								
	Alachua		Duval		Holmes	Mia ni-Dade		Seminole
	Baker		Escambia		Indian kiver	Monroe		St. Johns
	Bay		Flagler		Jackson	Nassau		St. Lucie
	Bradford		Franklin		Jefferson	Okaloosa		Sumter
	Brevard		Gadsden		Lafayette	Okeechobee		Suwannee
	Broward		Gilchrist		Lake	Orange		Taylor
	Calhoun		Glades		Lee	Osceola		Union
	Charlotte		Gulf		Leon	Palm Beach		Volusia
	Citrus		Hamilton		Levy	Pasco		Wakulla
	Clay		Hardee		Liberty	Pinellas		Walton
	Collier		Hendry		Madison	Polk		Washington
	Columbia		Hernando		Manatee	Putnam		
	DeSoto		Highlands		Marion	Santa Rosa		
	Dixie		Hillsborough		Martin	Sarasota		



FACILITY INFO	RMATION
Facility/Installat	tion Name: *
Address Line 1:	
Address Line 2:	
Directions:	
State: * FL	
Zip Code:	
REPORTER DET	TAILS
Name: *	
Title: *	
Phone: *	Ext:
E-mail Address	
Relationship: *	☐ Operator of the Facility/Installation ☐ Owner of the Facility/Installation
	Other (Please specify relationship):
CONTACT DET	AILS
Name: *	
Phone: *	Ext:
E-mail Address:	*

- Must there be any follow up notice?
 - YES Because the installation believes the plume traveled off site of the installation based on visual observation only.
 - Additional notice within 24 hours after the owner or operator discovers the released has migrated off-site. See Section 403.077(2)(d), F.S.



• Must there be any follow up notice?

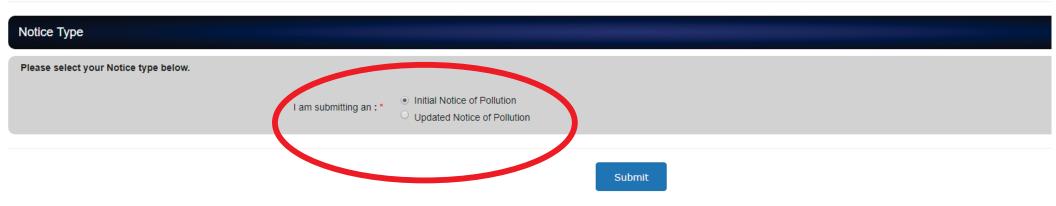


You are submitting a Public Notice of Pollution in accordance with Section 403.077, F.S.. which is intended to prevent harm to human health, welfare, or property by assisting the control of pollur "reportable releases" are required to be reported to the Department.

Please be aware that while submission of a Notice through this website complies with the requirements of Section 403.077, F.S., it does not relieve you of any obligation to report to the State W by your permit or state law.

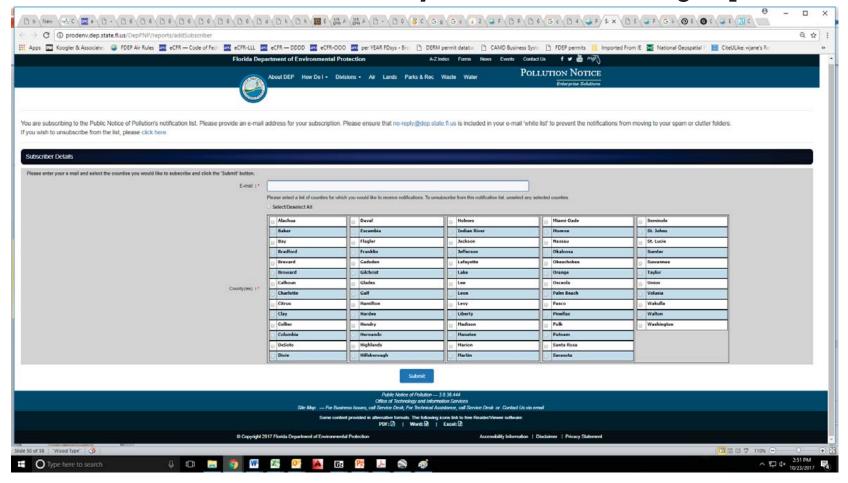
If you are reporting a new Incident, please select "Initial Notice" and click Submit below.

If you have previously reported this Incident, have obtained a DEP Incident ID, and wish to update your Notice, please select "Updated Notice of Pollution", enter the DEP Incident ID, and click states and click states.





- General comments on the reporting to FDEP to date
 - Public involvement addressed by automatic emails, sign up on line



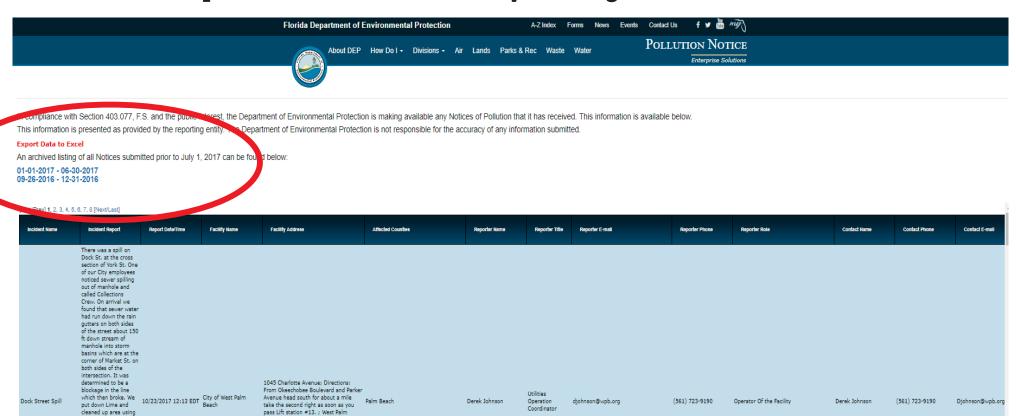


General comments on the reporting to FDEP to date

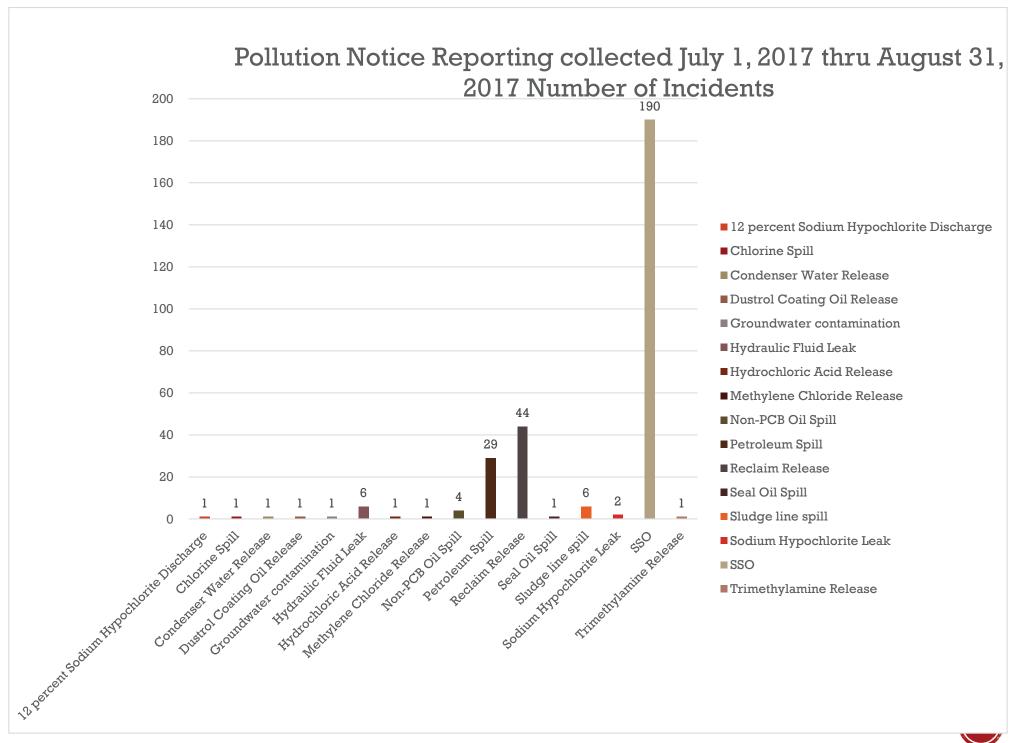
Beach FL; 33401

(2) Vac Trucks. Our Storm Drainage Crew showed up and placed Turbidity Barriers in

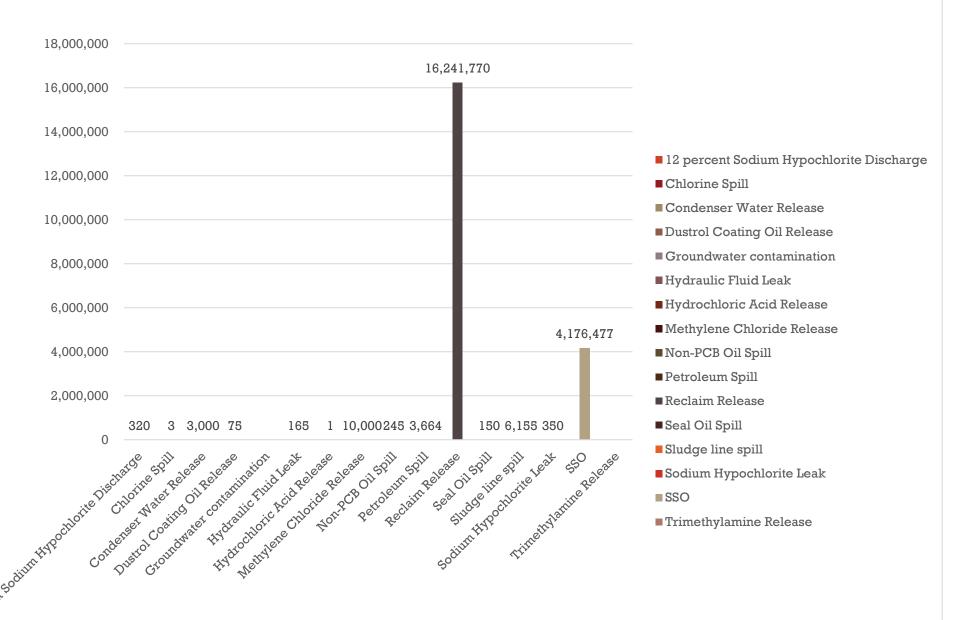
• FDEP responsibilities addressed by oversight and review of submittals







Pollution Notice Reporting collected July 1, 2017 thru August 31, 2017 Provided in Gallons



THE SAGA CONTINUES...

Two weeks later, when completing debris removal, a company employee discovers that the explosion caused a 55-gallon drum of diesel to topple and its contents have apparently spilled onto the ground (an impervious surface)





CONTAMINATION NOTIFICATION

- Section 62-780.210, F.A.C. applies.
 - Discharge is a petroleum product See Section 376.301(33), F.S.
 - Volume exceeds 25 gallons.
 - Must notify State Watch Office as soon as possible, but no later than 24 hours following discovery.
- Do you have to notify the Department pursuant to the Pollution Notification Law?

True or false?





CONTAMINATION NOTIFICATION

- Section 62-780.210, F.A.C. applies.
 - Discharge is a petroleum product See Section 376.301(33), F.S.
 - Volume exceeds 25 gallons.
 - Must notify State Watch Office as soon as possible, but no later than 24 hours following discovery.
- Do you have to notify the Department pursuant to the Pollution Notification Law?
- Answer: **True**



THERE'S MORE ...

When the company begins cleaning the relatively small area of petroleum contamination, lower layers of soil in the area appear to be contaminated – perhaps by the prior owner, more than a decade ago ...





MORE CONTAMINATION, MORE NOTICE?

- It depends.
- Assess situation
 - Is this petroleum or petroleum product?
 - Consider de minimus rule applications
 - Can you address the contamination in 30 days or less? *See* Rule 62-780.550.
 - What if the work is too complex?
- Notice of Field Activities, Rule 62-780.220(1), F.A.C.
 - This allows the Department to oversee activities.



OFFSITE NOTIFICATIONS

- If your contamination in any media is confirmed off-site, contamination notification is required pursuant to
 - Rule 62-780.220(2), F.A.C. &
 - Section 376.30702 (2), Florida Statutes.
- Notice required within 10 days of discovery
- Notice should be completed using Department form adopted by rule, Form 62-780.900(1), F.A.C.
- Department notifies within 30 days pursuant to Section 376.30702(3), F.S.



REMEDIATION AND CORRECTIVE MEASURES

- Rule 62-780.700(13), F.A.C. --
 - If effluent or air concentrations exceed anticipated values or ground water plume migration occurs notice should be given within 7 days.
 - If conditions represent an imminent threat, notice is required within 24 hours.
- Other Considerations ---
 - PCB Remediation Waste
 - See 40 CFR Section 761.61.
 - Air emissions/UIC/NPDES
 - Noise and/or odor levels
 - Traffic patterns and routing



REPORTING - COMMON MISTAKES

- Report on time
- Owner or Operator must report
- Document, document in writing
- Review for data quality that is defendable
- JOE ADD MORE PLEASE!!!



Thank you!

