



Ohio Oil & Gas Energy Education Program



IOGCC Annual Conference

State Regulatory Emergency Response Plan Panel

Monday, October 20, 2014

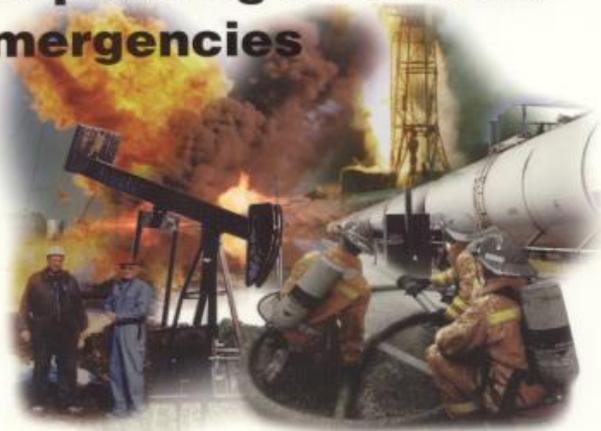
Rhonda Reda, OOGEEP Executive Director

OHIO OIL & GAS ENERGY EDUCATION PROGRAM



Field Guide 1

Responding to Oilfield Emergencies



Responding to Oilfield Emergencies Training Program

Collaborative Effort

- **OOGEEP/ Ohio's Oil and Gas Industry**
- **Ohio Emergency Responders**
- **Ohio Department of Natural Resources**
- **Ohio Emergency Management Agency**

Endorsements:

Ohio Fire Chief's Association



Ohio Society of Fire Service Instructors



Ohio Fire & Emergency Services Foundation



All participants receive CEU Credits and an Optional Graduate Credit from Hocking College

Funding

Ohio's Natural Gas and Crude Oil Producers

- ✓ To date, approximately 2.7 million dollars have been voluntarily funded by Ohio's oil and gas industry.
- ✓ Training has now been provided to:
 - ✓ 1,207 Ohio Emergency Responders:
 - ✓ 275 Ohio Fire Departments
 - ✓ 259 Cities/ Towns
 - ✓ 42 Ohio Counties
 - ✓ Departments from 7 other states

OHIO OIL & GAS ENERGY EDUCATION PROGRAM



INVITES YOU TO ATTEND:

2014 RESPONDING TO OILFIELD EMERGENCIES WORKSHOPS



Training Workshop Dates:

March 29 - March 30, 2014

May 17 - May 18, 2014

September 6 - September 7, 2014

October 11 - October 12, 2014

November 1 - November 2, 2014

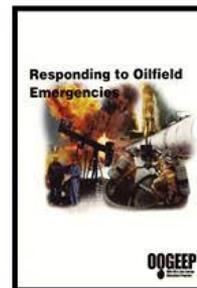
SPACE IS LIMITED, REGISTER EARLY!

Held At The:

Wayne County Fire & Rescue Training Facility

2311 South Milborne Road

Applecreek, Ohio 44606



Funded and Sponsored by:
Ohio's Natural Gas and Crude Oil Producers
Celebrating More Than 150 Years of Exploring, Drilling and Producing Ohio's Energy!

Fire Training



Participating Fire Departments

Aid Township Volunteer F.D. Inc.
Akron Fire Department
Alliance Fire Department
Antioch and Community Volunteer F.D.
Antrim Volunteer Fire Department
Apple Creek Fire Department
Ashland Fire Department
Bainbridge Township Fire Department
Barberton Fire Department
Barlow Volunteer Fire Department
Barton Volunteer Fire Department
Barton Volunteer Fire Department, Inc.
Basil Joint Fire District
Bath Fire Department
Bazetta Fire Department
Beachwood Fire Department
Beallsville Volunteer Fire Department
Belle Valley Fire Department
Beloit Fire Department

Belvedere Fire Department
Bergholz Fire Department
Berlin Township Fire Department
Bloomingdale Fire Department
Boardman Fire Department
Bolivar Volunteer Fire Department, Inc.
Braceville Township Fire Department
Brecksville Fire Department
Bremen Rushcreek Fire Department
Brewster Volunteer Fire Department
Brimfield Fire Department
Broadview Heights Fire Department
Brown Township Fire Department
Bulter County Community College
Burlington Volunteer Fire Department
Caldwell Volunteer Fire Department
Cambridge Fire Department
Cameron Volunteer Fire Department
Canann Township Fire Department

Participating Fire Departments

Canton Fire Department
Canton Township Fire Department
Cardinal Joint Fire District
Carroll County Volunteer F.D.
Carrolton Village Fire Department
Cassell Station Volunteer F.D.
Central Fire District
Champion Township Fire Department
Chardon Fire Department
Chester Township Fire Rescue
Chesterland Fire Department
Chicora Volunteer Fire Department
Chippewa Fire Department
Circleville Fire Department
City of Green Division of Fire
City of Wheeling Fire Department
Claysville Volunteer Fire Department
Cleveland Heights Fire Department
Clinton Fire Department

Clinton Township Fire Department
Coal Grove Fire Department
Coitsville Volunteer Fire Department
College Monroe Township F.D.
Columbiana Fire Department
Concord Township Fire Department
Copley Fire Department
Coshocton Fire Department
Cumberland Trail Fire District
Cumberland Volunteer Fire Department
Cuyahoga Falls Fire Department
Dalton Fire Department
Damascus Fire Department
Delaware Valley Joint Fire District
Dellroy Volunteer Fire Department
Dickinson Fire Department
Dover Fire Department
East Holmes Fire Department and EMS
East Palestine Fire Department

Participating Fire Departments

East Sparta Volunteer Fire Department
Eastern Knox County Joint Fire District
Eaton Township Fire and Rescue
Ellsworth Fire Department
Erhart/ York Township Fire Department
F. C. V. Volunteer Fire Department
Fairview and Community Volunteer Fire Department
Farmington Fire Department
Fowler Township Fire Department
Fox Township Volunteer Fire Department
Franklin Township Fire Department
Fredericksburg Volunteer Fire Department
Fredericktown Community Fire District
Garrettsville Freedom-Nelson Joint F.D.
Gates Miles Fire Department
Good Hope Fire Department
Grandview Volunteer Fire Department
Granger Township Fire Department
Greentown Fire Department

Hamilton Township Fire Department
Hanover Township Volunteer F.D.
Harrison Township Fire Department
Harrisville Fire Company
Hartford Volunteer Fire Department
Hartsgrove Volunteer Fire Department
Heath Fire Department
Highland Heights Fire Department
Highland Hills Fire Department
Hiram Fire Department
Holmes Fire District #1
Homeworth Vol. Fire Company, Inc.
Hubbard Fire Department
Hudson Fire Department
Hughesville Fire Department
Illinois Fire Service Institute
Independence Fire Department
Irononton Fire Department
Jackson Township Volunteer Fire Dept.

Participating Fire Departments

Jeromesville Fire Department
Killbuck Township Fire Department
Knoxville Fire Department
Lafayette Township Fire and Rescue
LaGrange Fire and Rescue
Lake Township Fire Department
Laurelville Volunteer Fire Department
Lawrence Township Fire Department
Lewisville Community Volunteer F.D.
Liberty Community Volunteer F.D.
Liberty Fire and Rescue
Liberty Township Fire Department
Lodi Fire Department
Logan Fire Department
Lordstown Village Fire Department
Lore City Volunteer Fire Department
Loudonville Fire Department
Louisville Fire Department
Lyndhurst Fire Department

M & M Volunteer Fire Department
Magnolia Volunteer Fire Department
Mantua-Shalersville Fire Department
Marietta Fire Department
Marlboro Volunteer Fire Company, Inc.
Marshallville Volunteer Fire Department
Mary Ann Township Volunteer F.D.
Mayfield Heights Fire Department
Medina County Emergency Management
Medina County Haz Mat Team
Medina Township Fire Department
Mentor Fire Department
Mineral City Volunteer Fire Department
Monroe Township Volunteer F.D.
Montoursville Fire Department
Moundsville Volunteer Fire Department
Mount Pleasant Volunteer F.D.
Morgan Hose Fire Department
Muncy Township Fire Department

Participating Fire Departments

Munroe Falls Fire Department
Murray City Fire Department
New Alexandria Volunteer F.D.
New Concord Fire Department
New Franklin Fire Department
New Middletown Fire Department
New Philadelphia Fire Department
New Pittsburg Fire Department
North Dakota Association of Oil and Gas
North Georgetown Volunteer F.D.
North Randall Fire Department
North Royalton Fire Department
Northfield Center Sagamore Hills Fire
Norton Fire Department
Norwalk Fire Department
O'Brien's Safety Services
Oak Grove Volunteer Fire Department
Ohio Bureau of Workers Compensation
ODNR-Division of Oil & Gas Resource Mgmt.

Orange Village Fire Department
Orangeville Fire Department
Orrville Fire Department
Osnaburg Township Fire Department
Paint Township Fire and Rescue
Palmyra Township Fire Department
Paris Township Fire Department
Pennsylvania State Fire Academy
Pepper Pike Fire Department
Perry Township Volunteer Fire Department
Pioneer Fire Department
Plain Township Fire Department
Pleasant Hill Volunteer Fire
Polk Fire Department
Prairie Township Fire Department
Quaker City Volunteer Fire Department
Randolph Fire Department
Ravenna Township Fire Department
Richfield Fire Department

Participating Fire Departments

Richmond Volunteer Fire Department
Rittman Fire Department
Rockport Ohio Township Fire
Department
Rome Township Volunteer Fire
Department
Rootstown Volunteer Fire Co.
Ruggles - Troy Township Vol. F.D.
Russell Township Fire Department
Sandy Creek Join Fire Department
Sandy Township Volunteer F.D.
Saybrook Township Fire Department
Scioto Township Fire Department
Sebring Fire Department
Senecaville Volunteer F.D.
Seville-Guilford Township F.D.
Sharon Township Fire Department
Sherrodsville Volunteer Fire
Department
Shiloh Fire Department
Silver Hill Fire Department

Somerset-Reading Township F.D.
South Central Fire District
South Franklin Township Vol. F.D.
Southington Township Fire Department
Springfield Township Fire Department
St. Joseph Volunteer F.D.
Sterling Fire District
Stow Fire Department
Strasburg Volunteer Fire Department
Strongsville Fire Department
Summerfield Volunteer Fire Department
Sunset Heights Fire Department
Tallmadge Fire Department
Toronto Fire Department
Toronto Volunteer Fire Department
Town and Country Fire District
Tri Community Fire Department
Trumbull Township Fire & Rescue
Twinsburg Fire Department

Participating Fire Departments

Unionport Fire & Rescue
Upper Township Vol. Fire Department
Valley City-Liverpool Township F.D.
Village of Waynesburg Fire Department
Violet Township Fire Department
Volunteer Firemen of Magnolia, Inc.
Wadsworth Fire Department
Wakeman Fire District
Walhonding Valley Fire District
Warren Township Fire Department
Warrenville Fire Department
Warwick Township Volunteer F. D.
Washington Township Fire & Rescue
Washington Township Fire Department
Washington Township Volunteer F.D.
Wayne County EMA
Wayne County Fire & Rescue Facility
Wayne Volunteer Fire Department
Waynesburg Volunteer Fire Department

Weathersfield Township Fire Department
Weathersfield Volunteer Fire Department
Wesley Township Volunteer F.D. Inc.
West Lafayette Fire Department
Western Reserve Joint Fire District
Wild Well Control, Inc.
Wileyville Fire Department
Williamsport Bureau of Fire
Willoughby Fire Department
Wilmot Fire and Rescue, Inc.
Windsor Fire Rescue
Woodsfield Volunteer Fire Department
Wooster Township Fire Department
Worthington Township Fire Department
Zoar Volunteer Fire Department

Workshop Outline

- **Basic Overview of Ohio's Oil and Gas Industry**
- **Drilling and Production Equipment/ Chemicals**
- **Responding to Potential Drilling Emergencies**
- **Responding to Potential Production Site Emergencies**
- **Emergencies vs. **Non-Emergencies****
- **Evaluation of the Emergency**
- **Establishing a Unified Command**
- **Response Resources (i.e. Class B Foam)**
- **ODNR Emergency Response Website**

Details on Air Monitoring

MOST COMMON.....

- Hydrocarbons
- Carbon Monoxide
- Oxygen Deficiency
- **Hydrogen Sulfide**



OOGEEP/ SOOGA H2S Trailer

OOGEEP



Assess the Situation

Assessment is the ongoing process of gathering information related to the incident. To ensure a successful operation, the Incident Command must establish a safe working environment by:

- ✓ **Assessing overall site safety.**
- ✓ **Managing any crowds.**
- ✓ **Establishing controlled access to the scene.**
- ✓ **Controlling the information to enable other organizations to evaluate their need.**
- ✓ **Creating an atmosphere of teamwork with all parties (industry, emergency response and regulatory agencies).**

Gather the Facts

Is this an actual emergency?

- Threats to life, limb, or property?
- Controlled or uncontrolled fire?
- Structures or equipment exposed to flames?
- Tank fire? Rig fire? Open hole fire? Drilling pit fire?
- Uncontrolled leaking of gas?
- Explosive concentrations of gas?
- Dangerous concentration of toxic gas - hydrogen sulfide (H₂S) gas?
- Deteriorated valves, pipes, or wellhead equipment?
- Environmental threats?
- Crude oil leaking into a water supply?
- Brine or other materials leaking?
- **Vandalism?**

Hunting Season

“It is illegal to sit, stand, or otherwise be in contact with oil or gas production or transmission wells, pumps, tanks, pipes, and other equipment.”

**ODNR Division of Wildlife
– Hunting License Rules**





**YOU CAN'T FIX
STUPID**

Assess Life Hazards

- **Explosion?**
- **Radiant heat?**
- **Adverse terrain?**
- **Adverse weather conditions?**
- **Large heavy equipment to move?**
- **Hazardous materials?**
- **Electrical equipment around producing wells?**
- **Unfamiliar equipment?**
- **High and low pressure gas?**

Assess Life Hazards

To oilfield workers:

- Trapped or entangled?
- Serious burns?
- Crush injuries?
- Avulsions?
- Amputations?
- Chemical exposure?
- Head injuries?
- Falls?
- Back injuries?
- Sprains?



Fire Departments Job is Not Necessarily to Put a Fire Out!

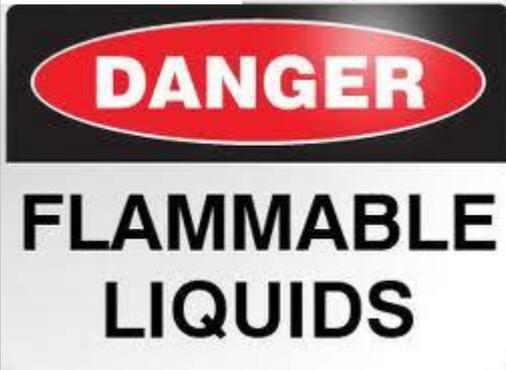
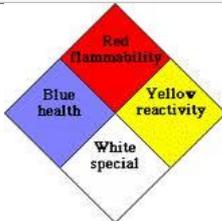


**BREAK
GLASS**
IN CASE
OF EMERGENCY

We have put out the world's most dangerous fires. That has defined us for the better part of our 30 years in the business. But today, with a full suite of prevention and pressure control services, we spend most of our time seeing to it such critical events never occur. So call 1.281.931.8884 or 1.800.BLOWOUT. Before you need to reach for the hammer.

www.boots-coots.com **BOOTS & COOTS**

Heed The Signs of Safety !



Treat All Oil and Gas Sites With The Utmost Respect!!

Pre-Plan!!

http://www.dnr.state.oh.us/~MapViewer - Windows Internet Explorer



OHIO Emergency Oil and Gas Well Locator

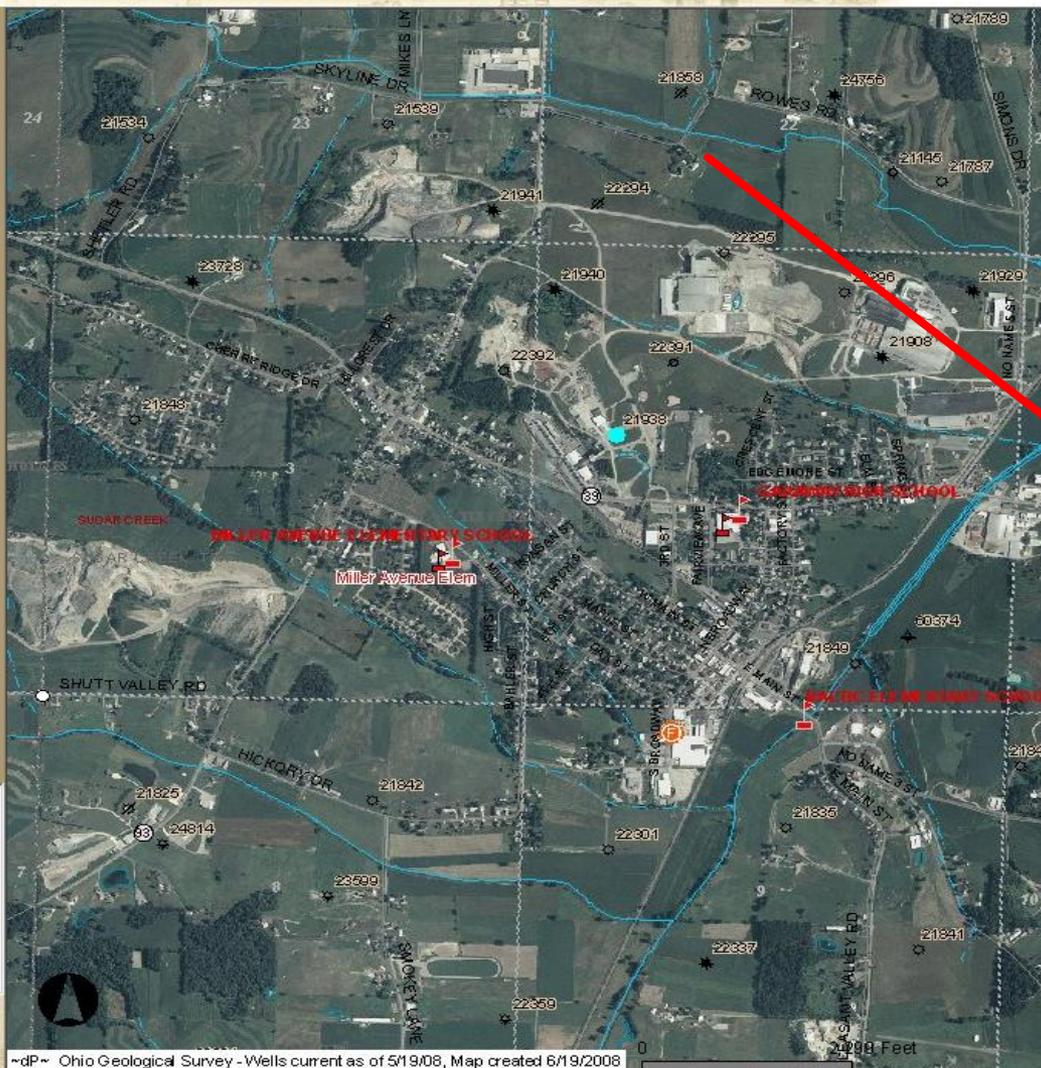
Locate Address

Zoom to County

- Table of Content/Legend
- Zoom In
- Zoom Out
- Reset, Zoom to Full Extent
- Zoom To Last Extent
- Pan
- Hotlink-View Well Card
- Identify Feature
- Query Database
- Measure Distance
- Set Map Units
- Buffer Selected Feature(s)
- Select Feature(s) by Rectangle
- Clear Selection
- Tool Help
- Print Layout



Zoom In



LAYERS

- All Layers
- Emergency Layers
 - Wells
 - Storage Tanks
 - Fire Departments
 - Airports
 - Heliports
 - Hospitals
 - Colleges
 - Patrol Outposts
 - Public Schools (OH PUC)
 - Private Schools (OH PU)
 - Schools (NCES)
- Basemap Layers
 - Map Background(choose 1)
 - USGS Topo Map (DRG)
 - Color Aerial Photos (2005)

Refresh Map

Auto Refresh

Help:

Note: Layers are scale dependent. This means you must be zoomed in to certain scales to view some layers.

- A closed group, click to open.
- An open group, click to close.
- A map layer.
- A hidden group/layer, click to make visible.
- A visible group/layer, click to hide.

CONTACT US

Ohio Geological Survey - Wells current as of 5/19/08, Map created 6/19/2008

**IF EVERYONE IS MOVING FORWARD TOGETHER,
THEN SUCCESS TAKES CARE OF ITSELF**

- Henry Ford



OHIO OIL & GAS ENERGY EDUCATION PROGRAM



Thank You!

Ohio Oil & Gas Energy Education Program



Rhonda Reda, OOGEEP, Executive Director
(740) 587-0410
rreda@oogeep.org
www.oogeep.org

Follow us on:
www.facebook.com/OOGEEP
www.twitter.com/OOGEEP