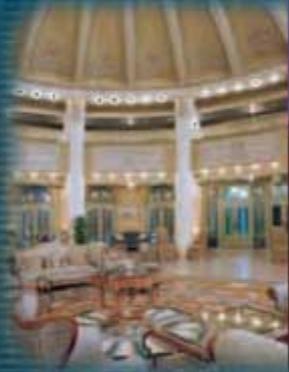




# Pipeline Safety

## Seminar

JULY  
2010



**French Lick,  
Indiana**





# ***Damage Prevention and Emergency plans***



# Wayne F. St. Germain

## YOUR INSTRUCTOR



# WELCOME

PHM-A Training & Qualifications  
6500 South MacArthur Blvd.

P. O. Box 25082 (PHP-70)

MPB Room 335D

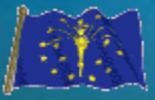
Oklahoma City, OK 73125-0082



# PHMSA Training & QualificationS



- × Live Person:
- × (405) 954-7219
  
- × Wayne St. Germain
  
- × Direct Phone #
- × (405) 954-8575
  
- × Fax: (405) 954-0206



# PHMSA Training & QualificationS



**Email:**  
[wayne.stgermain@dot.gov](mailto:wayne.stgermain@dot.gov)





# Damage Prevention Program





# **Mandatory Participation in Qualified One-Call Systems**

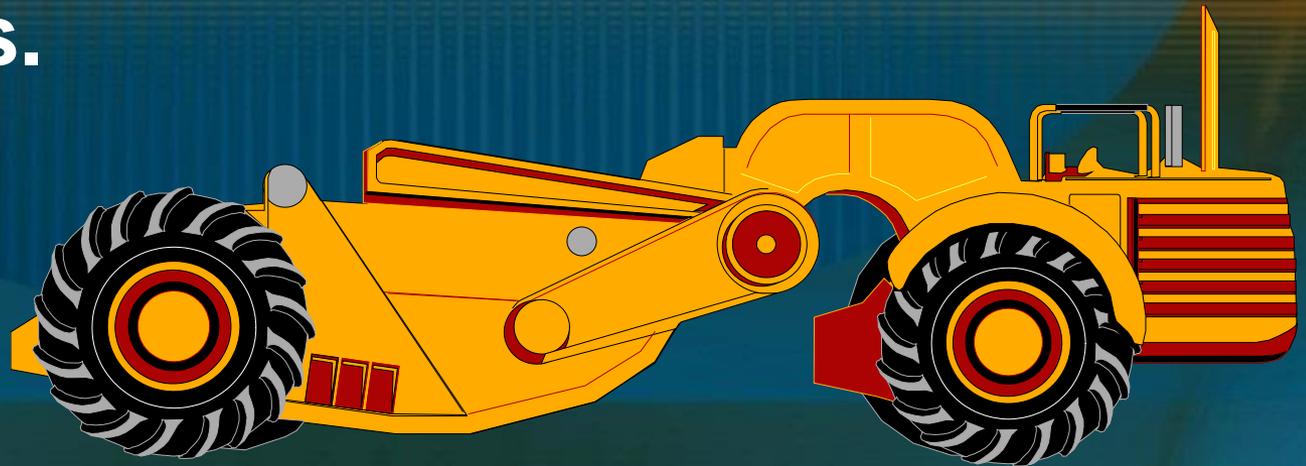
**Amendment 192-82**

**Effective May 18, 1998**



# Damage Prevention Program

- (a) Except as provided in (d) & (e) each operator must carry out a written program to prevent damage to that pipeline from excavation activities.





# Damage Prevention Program

**(b) An operator may comply with any of the requirements of (c) through participation in a one-call, but**

**this does not relieve the operator of responsibility for compliance.**



# Damage Prevention Program

- (b) Operator **must** perform duties of paragraph (c)(3) **through** a qualified one-call.
- Where multiple one-calls exist, may join only 1 if,
  - Central telephone number, or
  - One-call systems communicate



# Qualified One-Call

1. The state has adopted a one-call program under 198.37, or



# Qualified One-Call

## 2. The one-call system:

- Is operated in accordance with 198.39;
- Provides operators an opportunity to similar to voluntary participant to have part in management responsibilities; and
- Charges an appropriate fee.



# Minimums

- Must identify, on a current basis, persons who normally engage in excavation activities.





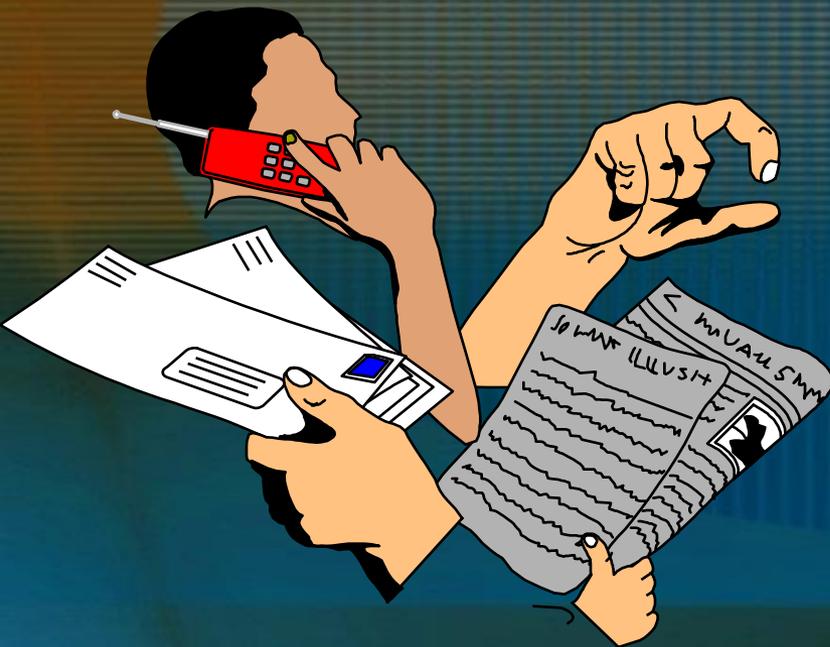
# Minimums

- **Provide for notification of the public and excavators as often as needed about the damage prevention program**
  - ☺ **Programs existence and purpose, and**
  - ☺ **How to learn of a pipelines location.**



# Minimums

- Means of receiving and recording notices of excavation





# Minimums

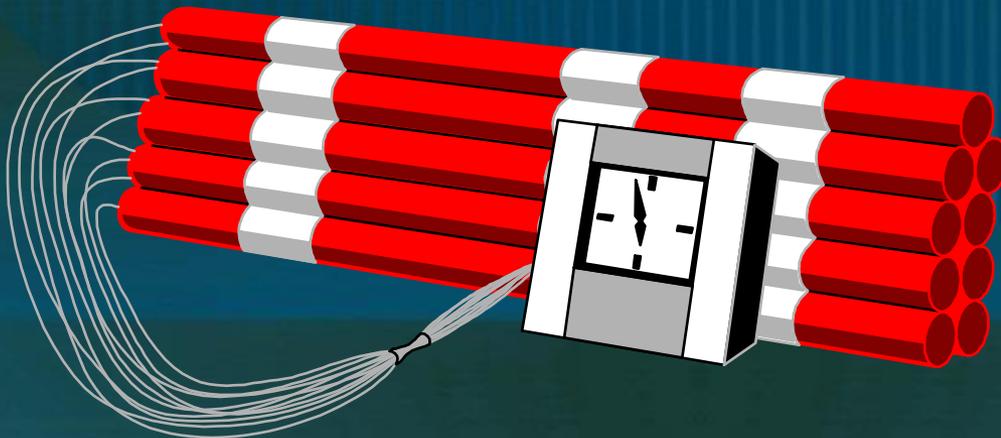
- Provide markings before excavation activities begin
- How to identify the markings





# Minimums

- Provide for pipeline inspections where excavation activity might cause damage
  - Inspection during and after as necessary; and
  - Leak surveys after blasting (GPTC Appendix G-192-16)





# Exceptions

- **Program is not required;**
  - Pipelines located offshore.
  - Class 1 & 2 areas until September 20, 1995  
(Amendment 192-73, also affects 192.707)
  - Access controlled by the operator



# Partial Exceptions

- **(e) Pipelines operated by persons other than municipalities whose primary activity does not include the transportation of gas need not comply with the following:**
  - **Written program**
  - **Identifying excavators**
  - **Notification process**



# EMERGENCY PLANS



# Written Procedures



Minimize the Hazard  
Resulting from a Gas  
Pipeline Emergency

192.615(a)



# Receiving, Identifying, and Classifying

Notices of Events  
which Require  
Immediate  
Response by the  
Operator



§192.615(a)(1)



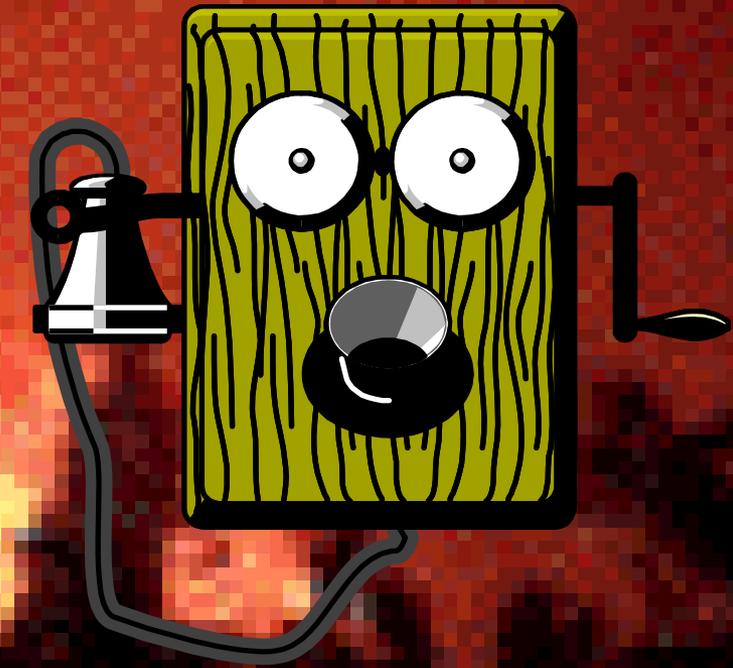
# Receiving

**24 Hour Telephone Number**

**1-800-Number**

**Gas Company - Day**

**Police Department - Night**



**§192.615(a)(1)**



# Identifying

Questions????



§192.615(a)(1)

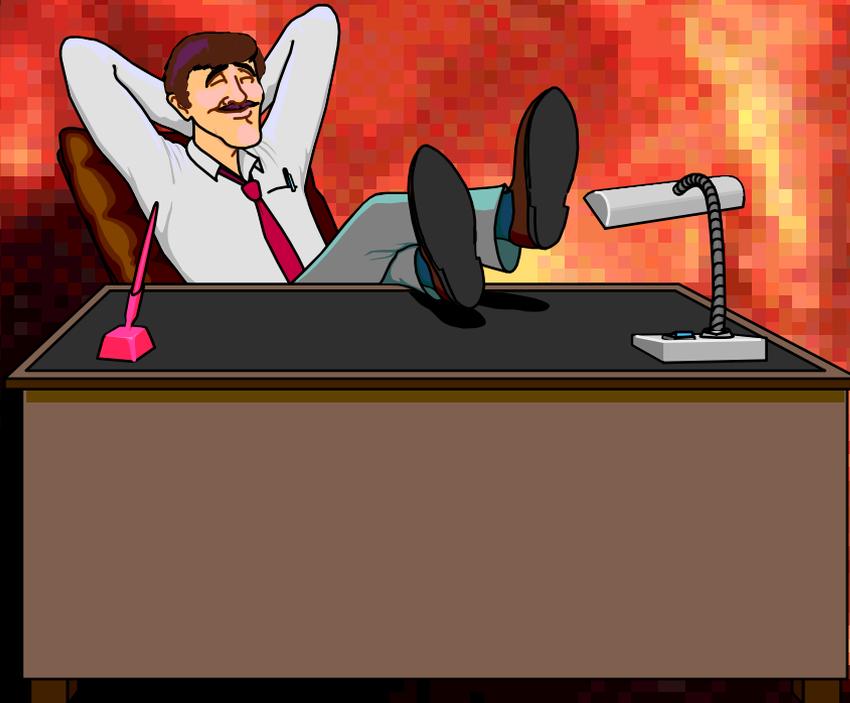


# Instructions?

§192.615(a)(1)



# Classifying



**Priority 1**  
**Immediate Response**

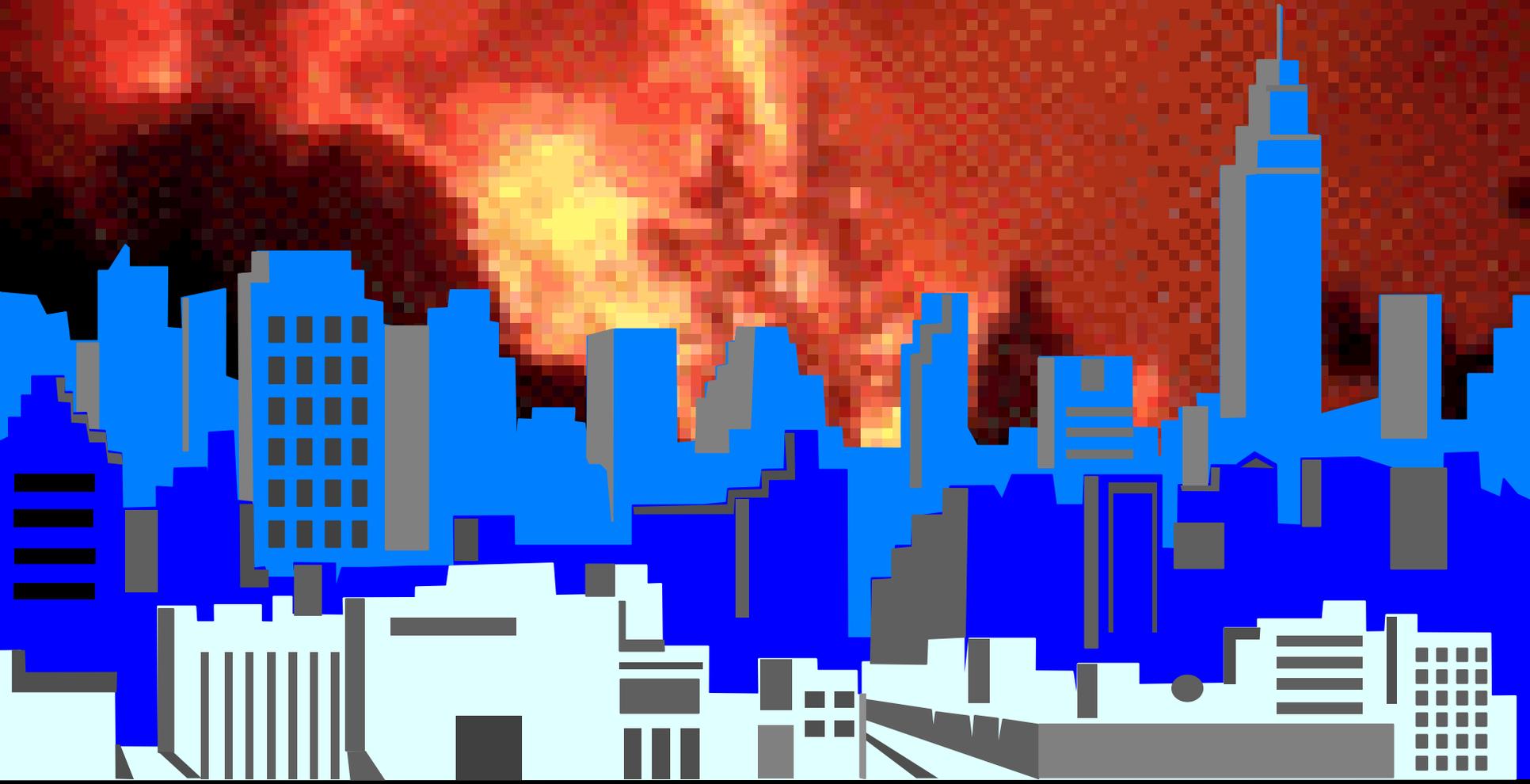
**Priority 2**  
**Next Available Person**

**Priority 3**  
**Within 2 Hours**

**§192.615(a)(1)**



# Scheduled Leak Surveys





# Adequate Means of Communication

Fire

Police

Other Officials

***Current Telephone Numbers***



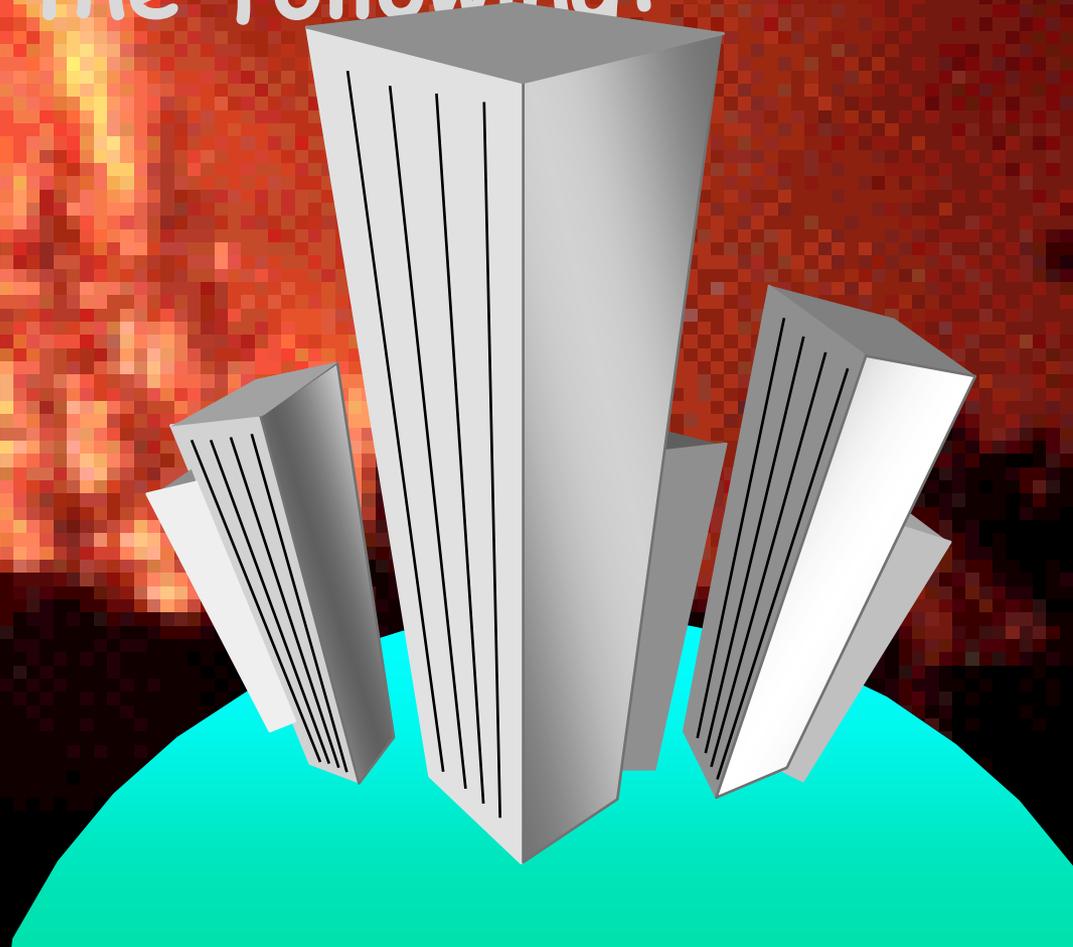
**§192.615(a)(2)**



Prompt and Effective Response to a Notice of each Type of **Emergency**, including the following:

*Gas Detected Inside or Near a Building*

**§192.615(a)(3)(i)**





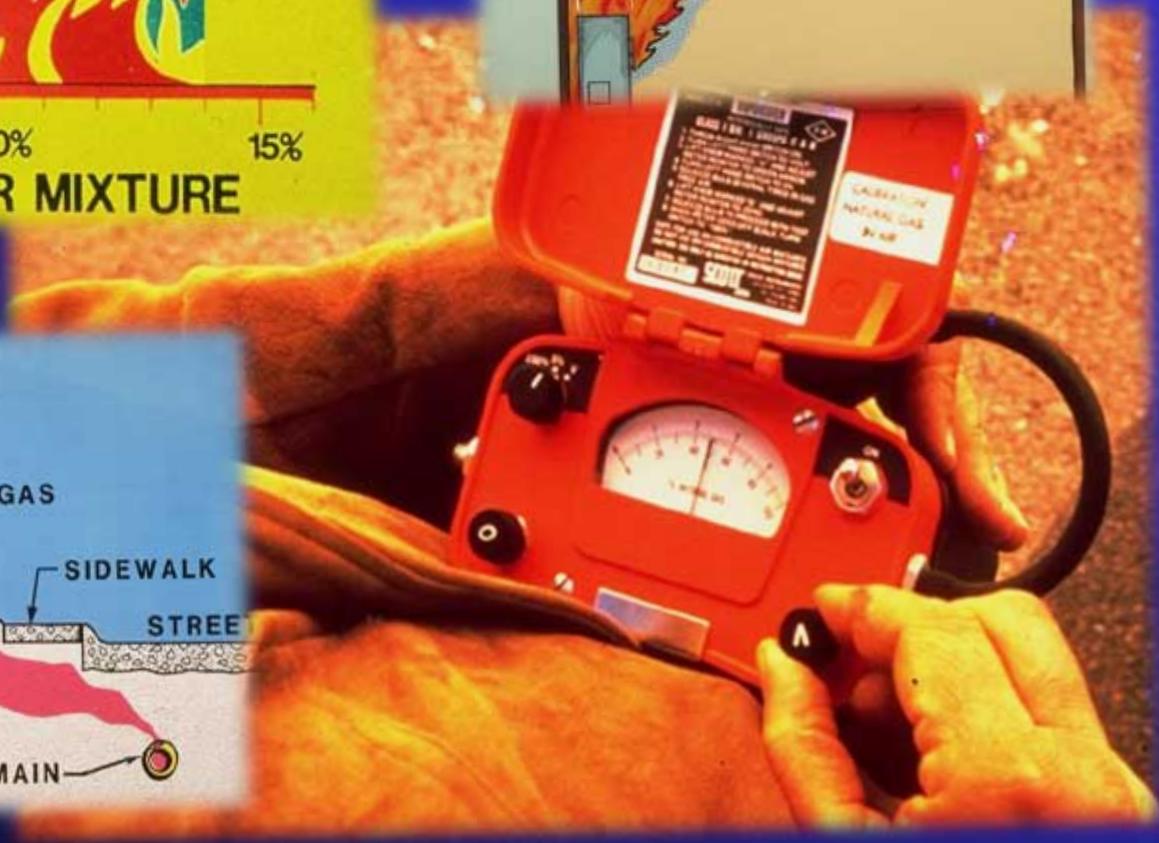
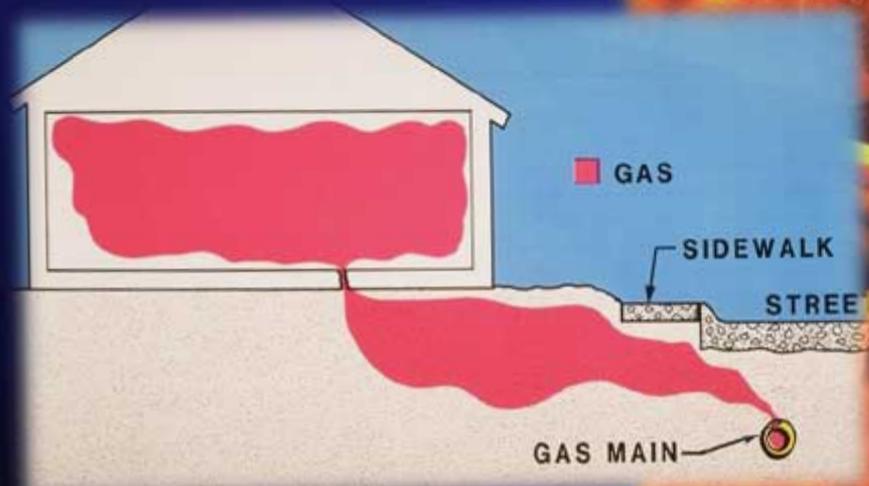
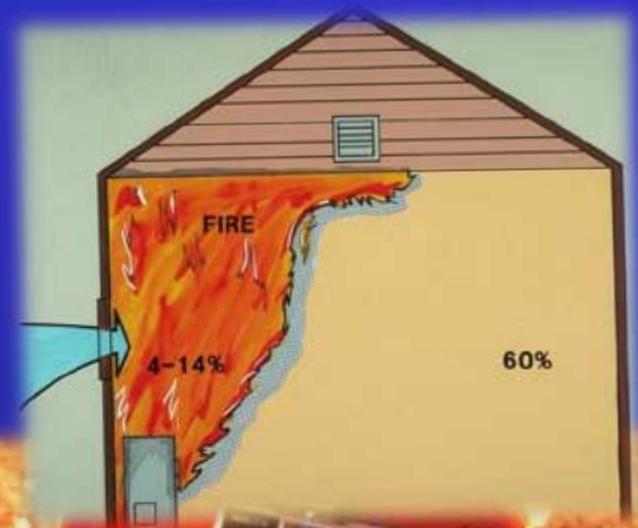
# LIMITS OF FLAMMABILITY

LOWER EXPLOSIVE LIMIT (L.E.L.)

UPPER EXPLOSIVE LIMIT (U.E.L.)



## NATURAL GAS-IN-AIR MIXTURE





# Fire

**§192.615(a)(3)(ii)**



# Explosion

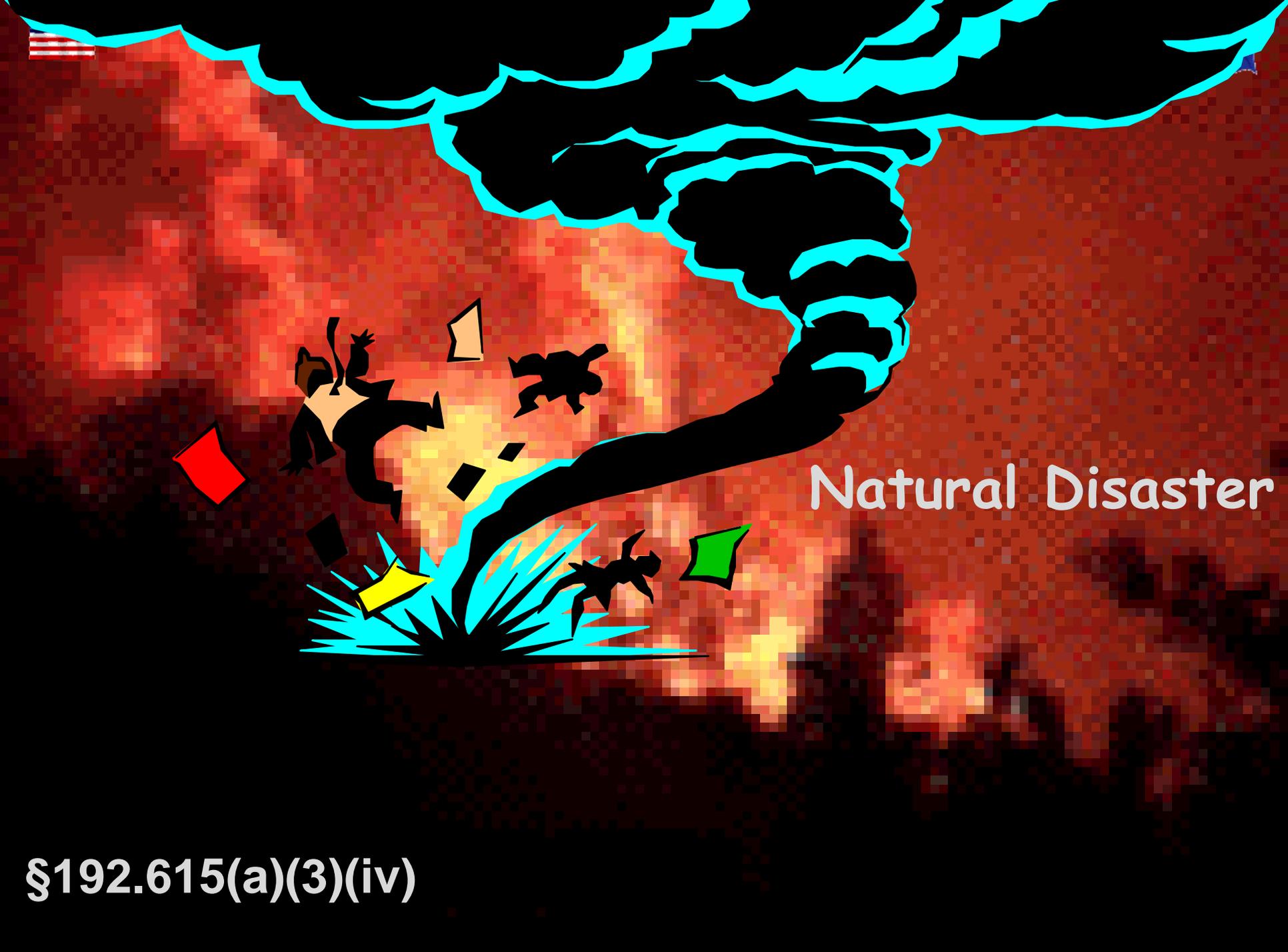


§192.615(a)(3)(iii)









Natural Disaster

§192.615(a)(3)(iv)



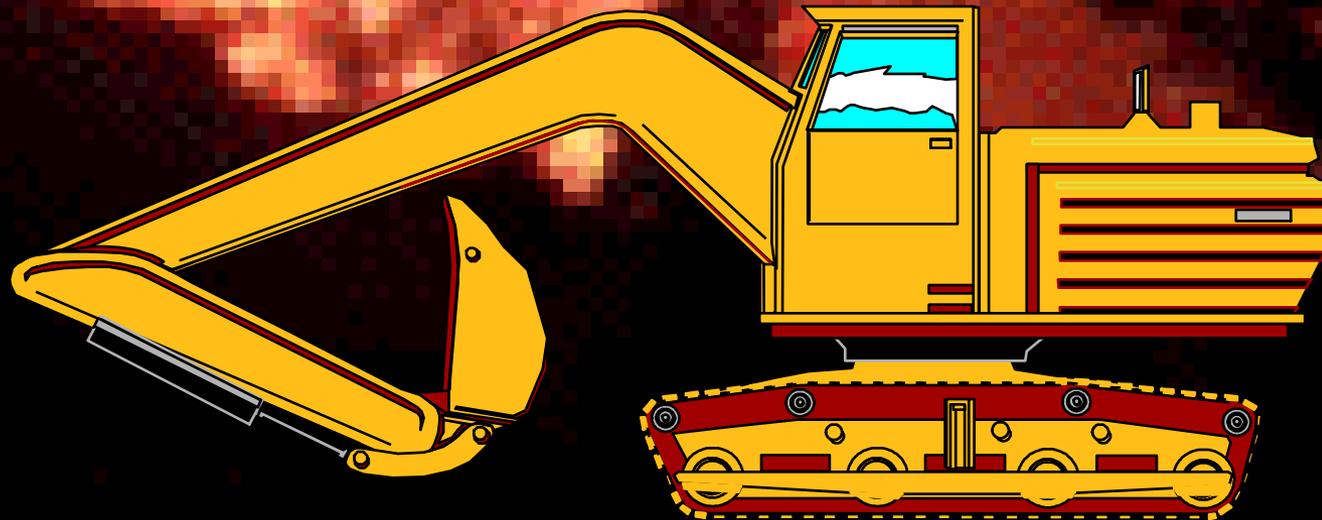








The availability of  
Personnel, Equipment,  
Tools, and Materials,  
as Needed at the Scene of an  
Emergency.



§192.615(a)(4)



Actions  
directed  
toward  
protecting  
people first  
and then  
property.

§192.615(a)(5)



Emergency shutdown and pressure reduction in any section of the operator's pipeline system necessary to minimize hazards to life or property.



§192.615(a)(6)



Making safe any actual or potential hazard to life or property.



§192.615(a)(7)



# Planned Responses

## Pipeline Emergencies

- Fire
- Police
- Public

## Actual Responses during an Emergency



§192.615(a)(8)



# Safely Restoring any Service Outage

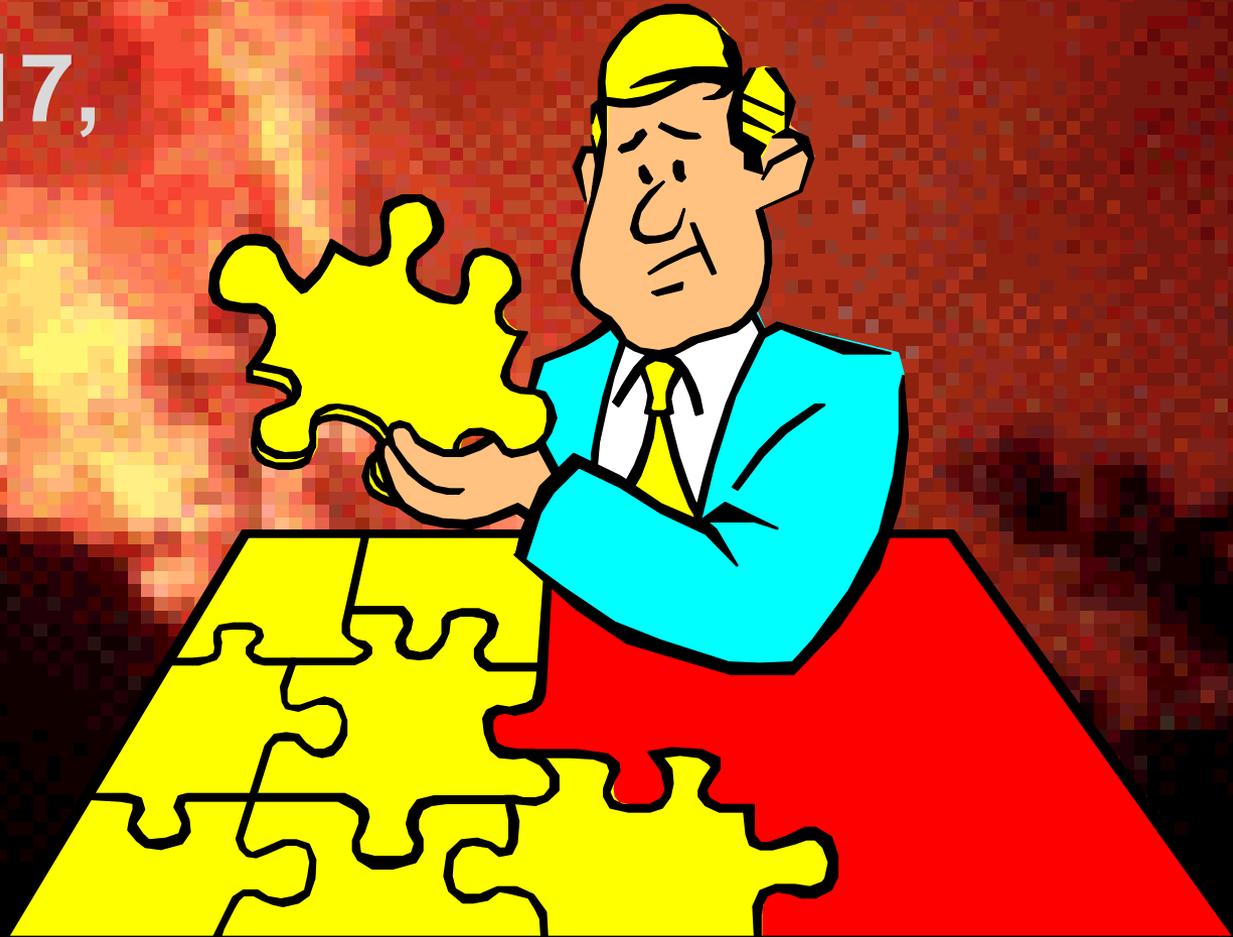


§192.615(a)(9)



# Failure Investigation

Begin Action  
under 192.617,  
as soon as  
possible



§192.615(a)(10)



# Minimize the Possibility of Recurrence



§192.617



# Control Room Emergency Responsibilities

- Actions required to be taken by a controller during an emergency in accordance with 192.631.

§192.615(a)(11)





# Emergency Procedures

Furnish Supervisors\* who are responsible for Emergency Action a copy of that portion of the latest edition of the Emergency Procedures



§192.615(b)(1)



# Training

- Operating Personnel
- Knowledgeable of the Emergency Procedures
- Verify that the Training is Effective



§192.615(b)(2)



Review employee activities to determine whether the procedures were effectively followed in each emergency.



§192.615(b)(3)



Each operator shall establish and maintain liaison with appropriate fire, police, and other public officials to:



§192.615(c)



# Liaison



- Learn what they can do for you.
- Tell them what you can do for them.
- Plan when they will be utilized.
- Plan how to reduce the hazards working together.

