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# **AUCSC Basic Course Chapter 8**

## **Regulatory Compliance**



**Appalachian Underground Corrosion Short Course**

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**Regulatory compliance describes the goal that organizations aspire to achieve in their efforts to ensure that they are aware of and take steps to comply with relevant laws and regulations.**

# **Regulatory Compliance**

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- **Ensure uniformity across operator pipeline system(s)**
  - **Written procedures**
  - **Training and qualification**
  - **Records**

# **Records – including Corrosion**

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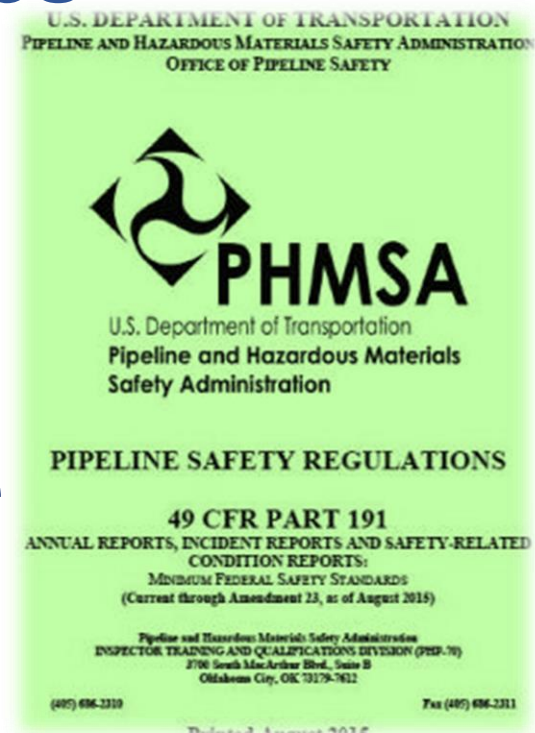
- **Prove compliance with federal and state pipeline safety regulations**
- **Used to support integrity management**
  - **Knowledge about the pipeline system**
  - **Identify threats to the pipeline**
  - **Risk analysis**
  - **Preventative or mitigative measures to reduce risk**

# Regulations

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- **Federal**
  - **49 CFR 192 – Natural and Other Gas**
  - **49 CFR 193 – LNG Facilities**
  - **49 CFR 195 – Hazardous Liquids**
- **Intrastate operators may subject to additional state regulations**



# **OTHER DOCUMENTS**

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- **Incorporated by reference documents**
- **PHMSA Code Interpretations, Alert and Advisory Bulletins, and Waivers**
- **PHMSA Enforcement Actions and Violation Letters**
- **PHMSA Enforcement Guidance**

# **OTHER DOCUMENTS**

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- **GPTC (Gas Piping Technology Committee)**
- **ASME B31.8**
- **Other association standards not incorporated by reference**
  - **NACE, ASTM, API**

# **Compliance**

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- **Federal regulations are minimum standards**
  - **Governs operation, maintenance, design and construction**
- **State regulations may exceed standards**
  - **Only applicable to intrastate pipelines**



# **O&M Procedure Manual**

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- **Part 192, 193, or 195 – Minimum Safety Standards**
  - **Operators must comply with minimum standards from code**
  - **Can voluntarily exceed minimum standards in their written**
    - **If exceeded, become the standard to which an operator is inspected**

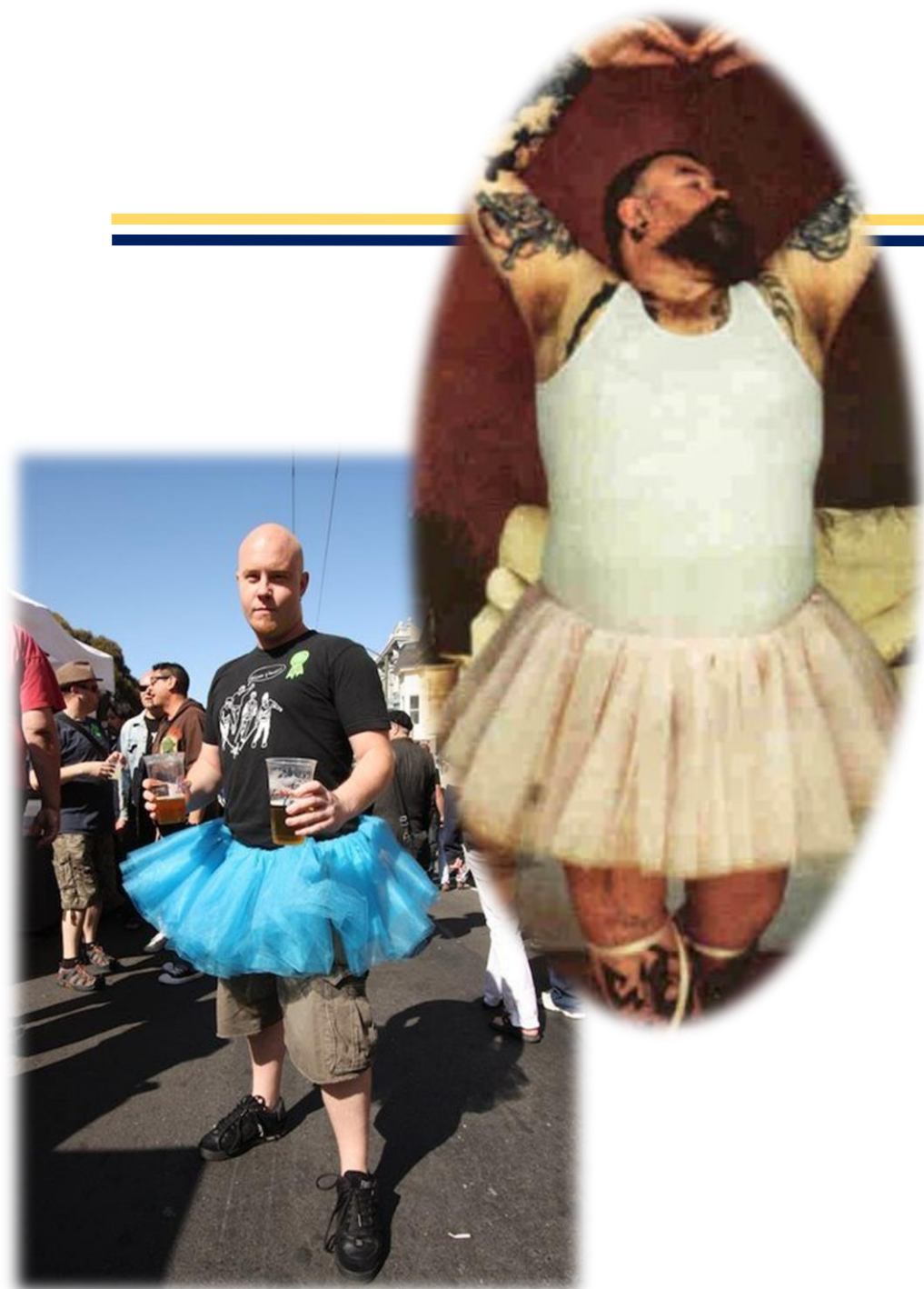
# O&M Procedure Manual

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**§§192.605, 195.402, 193.2503**

- **Company interpretation and implementation of code**
- **Provides uniform standard**
- **First reference on WHAT to do**
- **Auditable procedures**



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**Must follow  
plans and  
procedures as  
outlined in the  
Company O&M  
Manual**

# Inspection Intervals

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- Many once per calendar year, not to exceed 15 months
- Six times per year, not to exceed 2 ½ months (75 days)
- Every three calendar years not to exceed 39 months
- To the day
- Can do early, but not late
  - Reset calendar



# O&M Procedure Manual

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**O&M Manual standards  
are audit standards and  
are enforceable**

# Written Company Procedures

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Be aware of how company procedures are written

**SHALL**

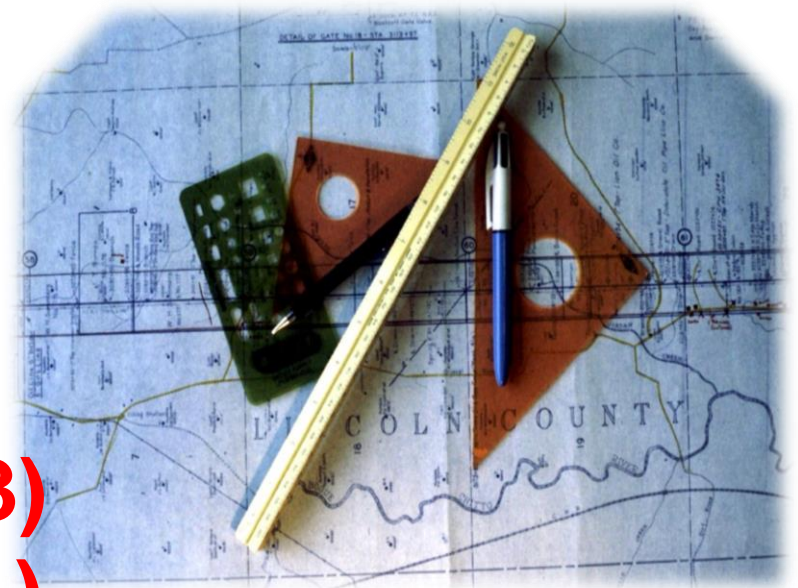
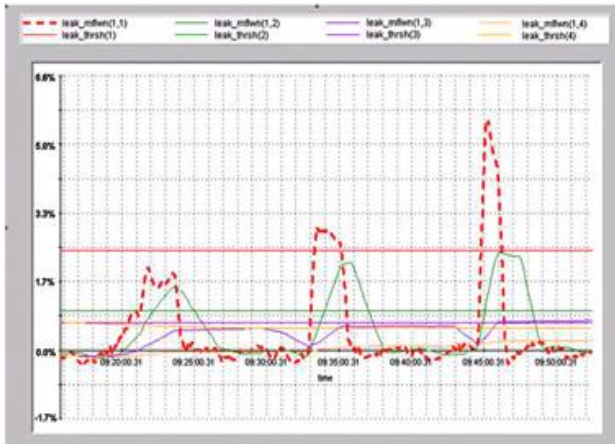
versus

**SHOULD**

Shall is imperative, mandatory, required, it must be done.  
Should allow some wiggle room.

# O&M Manual – Records and History

Making construction records,  
maps and operating history  
available to appropriate operating  
personnel



**§192.605(b)(3)**  
**§195.402(c)(1)**

# **O&M Manual - Corrosion**

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**Controlling corrosion in accordance with the operations and maintenance requirements of SUBPART I (Subpart H) of this part**

**§192.605(b)(2)**  
**§ 195.402(c)(3)**





# Records

Keep records necessary to administer the procedures

§192.603(b)  
§195.404

**PIPELINE WORKING PRESSURE CALCULATION REPORT**

INDEX NO. 276 1 1 1

MOBILE DISTRICT'S  
PIPELINE WORKING PRESSURE CALCULATION REPORT

ST. JOE BRICK WORKS, INC.  
OPERATED AND OWNED

PARISH LOUISIANA

ST. TAMMANY

DATE: 7-31-86

DISTRICT: VICTORIA

AREA: MISSOURI CITY

FROM: VARIOUS

TO: VARIOUS

WASHER	CHANGING IN LAPOROUS PIPE	LEAK DETECTION METHOD	POWER LINES	MARKERS AND BOUNDS	PATROLLED BY
No	No	1	No	No	OK
No	No	1	No	No	OK
No	No	1	No	No	OK
No	No	1	No	No	OK
No	No	1	No	No	OK
No	No	1	No	No	OK
No	No	1	No	No	OK
No	No	1	No	No	OK
No	No	1	No	No	OK

TRANSMISSION LINE: MAIN LINE

RECORD SER NO: 3, 3, 3

3085th St / Hwy 101

NEW HOMES

RECEIVED  
8-13-86  
VICTORIA - ENGINEERING

NOTED  
MSS

SIGNED  
Randy Moore

NOTE: Always give exact location if no leak or water report. "None" if condition is bad, give location and date why. If condition is good, state "Good". Use Miscellaneous at back of page to describe unusual conditions.

\*LEAK DETECTION METHOD:  
1. Flame Ionization  
2. Combustible Meter  
3. Infrared  
4. Other

THE MAP IS WMA 600

PIPELINE WORKING PRESSURE CALCULATION REPORT

# Records

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- The regulations do not specify how records are kept.
- They can be electronic, paper, or some other format specified by the operator.
- Some sections specify what needs to be on forms
- Not required to be signed, but do need to indicate who did the task.
- Should include what was inspected, who inspected, and date of inspection.

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**NO RECORD = NO WORK**

# Records

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- **Life of Facility Records**
  - Include construction, materials, repairs, MAOP information, and most corrosion records
  - Retained for as long as facility is in service
- **Other Records**
  - Include tests, inspections, patrols, surveys and procedure reviews which prove compliance with 49 CFR 192, 193, or 195
  - Retain for at least 5 years

# **Records**

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**Records should be:**

**Complete**

**Accurate**

**Accessible**

# Complete Records

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- Right form?
- Everything filled out?
  - Blanks mean questions
- Name of person doing task
  - OQ
- Date



# Accurate

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- **Information correct**
  - **Location**
    - **Stationing**
    - **GPS**
    - **Other**
  - **Readings**
  - **Materials**



# Accessible

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- Paper
- Computerized
- Integrity of the documents
  - Who has access and can change





# Records

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- **For records to be accurate they must include:**
  - **Who performed work? (qualified)**
  - **When work was performed? (date)**
  - **What work was performed? (task)**
  - **Where was work performed? (location)**
  - **How was work done? (procedure)**
  - **Results? (readings/inspections)**

# Records

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- **Retained according to Company procedures**
  - What is record keeping system
  - How long is record kept
- **Integrity Management has changed some retention intervals**

# Records

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- **Pipeline information**
  - **Installation dates**
  - **Size or diameter, wall thickness, grade**
  - **Coating**
  - **Installation method**
  - **Repairs**



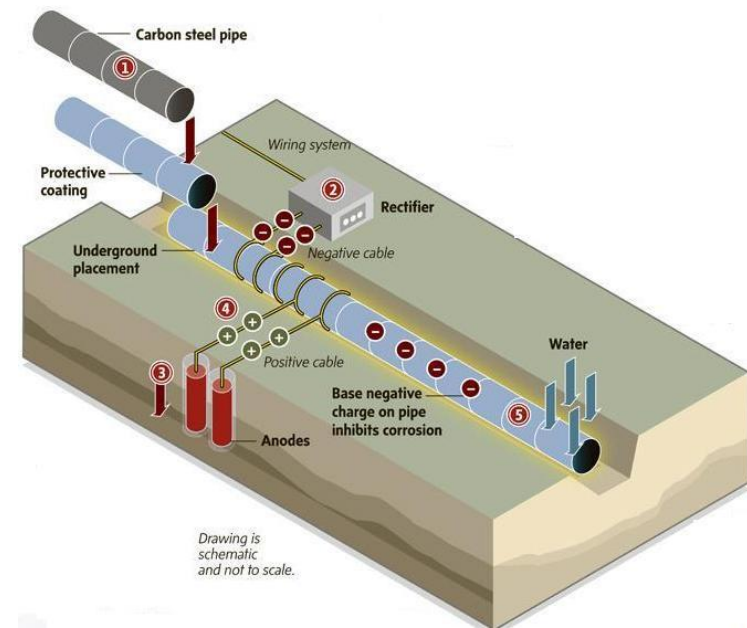
# Records

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- **Miles of:**
  - **Bare pipe, coated pipe**
  - **Cathodically protected pipe**
    - **Type CP system – impressed current or anodes**
    - **How many rectifiers**
    - **Electrical isolation and stray current**
    - **Number of critical/non-critical bonds**
  - **Active corrosion zones**

# Corrosion Control Records

- Records or Maps
  - Location of Protected Piping
  - Cathodic Protection Facilities
  - Galvanic Anodes
  - Bonds to Other Structures
- As built



# Records

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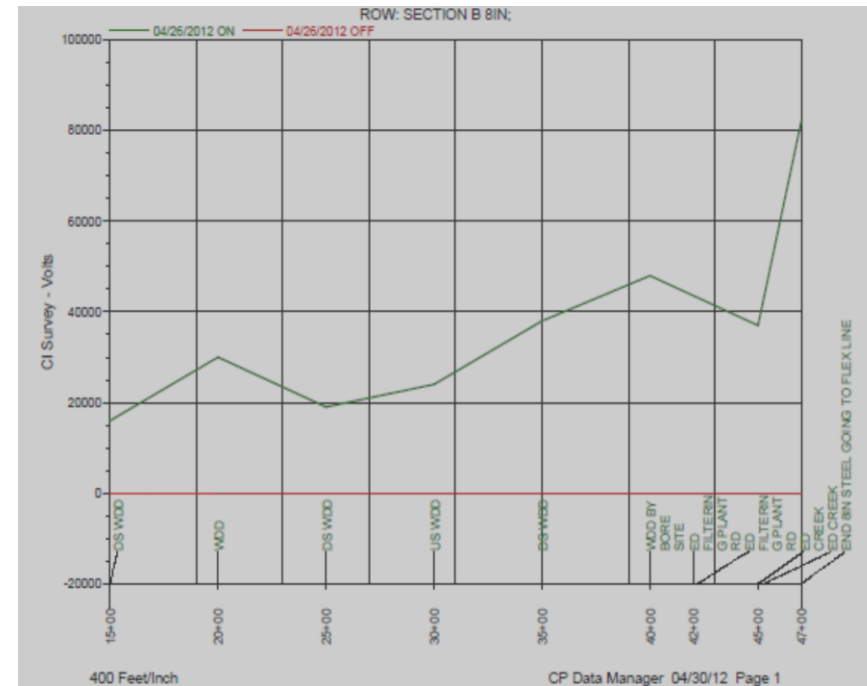
- **Casings**
  - Shorted casings/filled
  - Tests for shorted casings
  - How shorted casings are monitored
- **Electrical isolation**
- **Stray current problems**
  - HV power lines
  - Shared ROW's
  - Tests



# Records

- Other corrosion records

- IR consideration
- Soil resistivity
- Design calculations
- Stray current surveys
- Interference tests
- CIS, DCVG



- Remedial actions and mitigation

# Records

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- **Leak Reports**
  - **Grading**
  - **Repairs**
  - **Resinspection**





# Records

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- **Buried pipe inspection reports, internal inspection reports**
  - Actual conditions agree with records?
  - Remediation
  - Both left in ground and removed
- **Circumferentially and longitudinally**



# Records

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- **Atmospheric inspections**
  - Newly exposed pipe
  - Pipe to soil interfaces
  - Under insulation
- **Remediation**



# Records - CP

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- Rectifier inspection
- Pipe to soil readings
- Critical/non-critical bonds
- IR drop coupons
- Electrical isolation
  
- Remediation



# Records - Internal

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- Gas samples
- Bacteria cultures
- Water/solid samples
  - pH
- Coupons

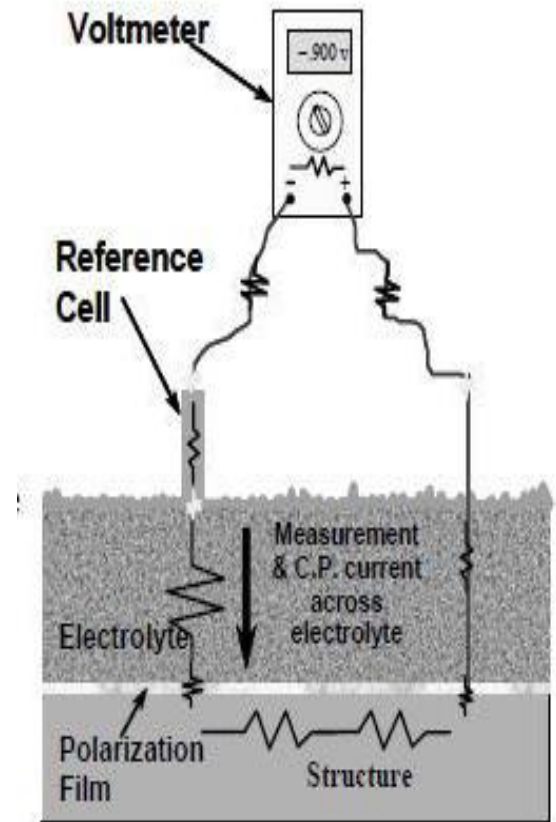


# Records

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- Most corrosion records retained 5 years
- Exceptions retained for life of pipeline
  - Annual P/S Surveys
  - 3-Year Reevaluations
  - Inspections for Internal Corrosion
- Retain according to Company policy



# Regulatory Compliance

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- **Achieved through**
  - Following detailed written procedures
  - Field observation and verification
  - Creating and maintaining the required records
- **Using information to determine additional actions**

