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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**

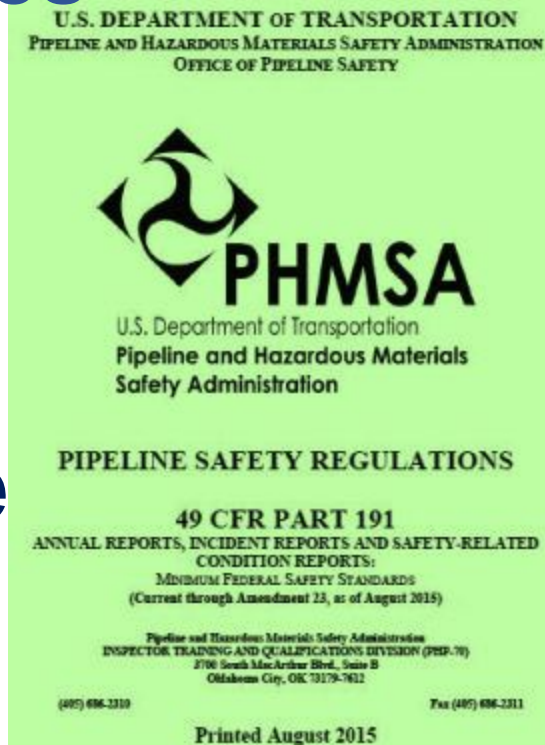
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- **Prove compliance with federal and state pipeline safety regulations**
- **Used to support integrity management**
  - **Knowledge about the pipeline system**
  - **Identify threats to the pipeline**
  - **Risk analysis**
  - **Preventative or mitigative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

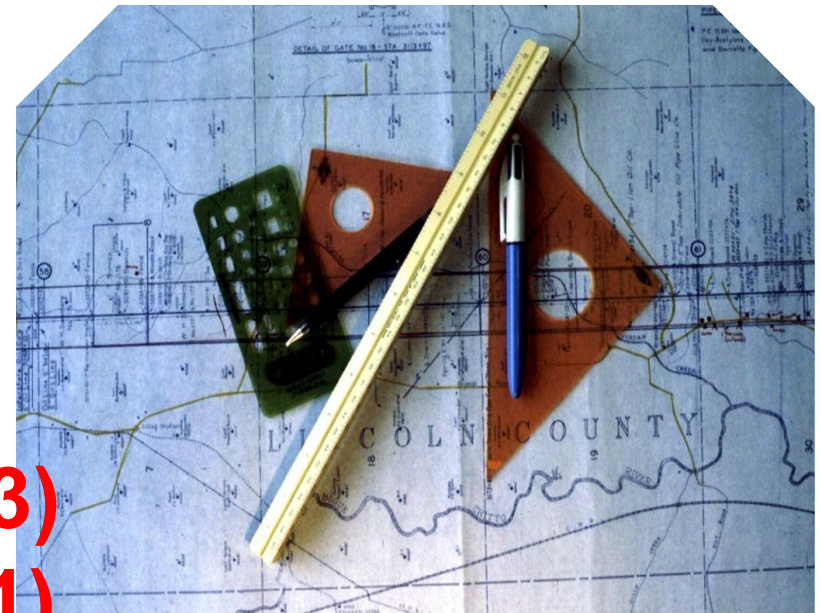
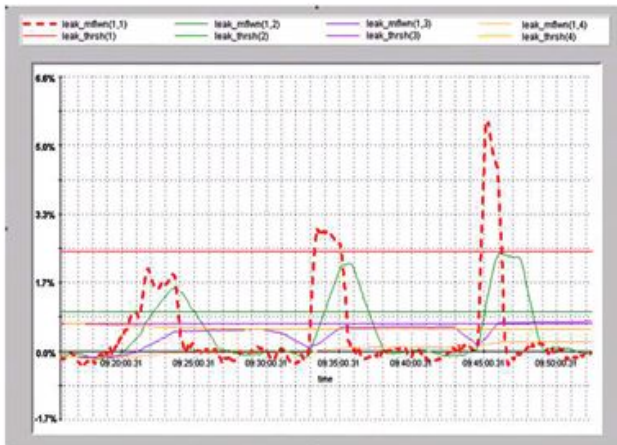
versus

**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)**





# Keep records necessary to administer the procedures

**§192.603(b)**  
**§195.404**

# 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

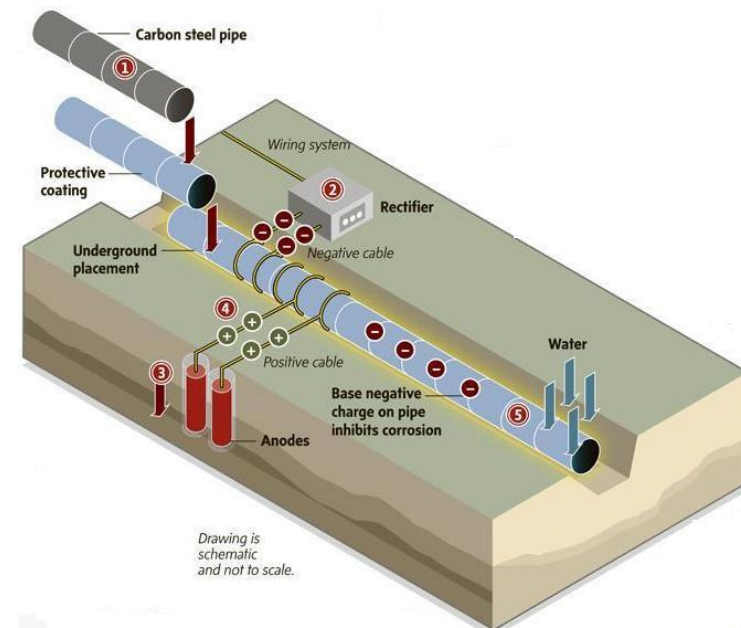
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- **Miles of:**
  - **Bare pipe, coated pipe**
  - **Cathodically protected pipe**
    - **Type CP system – impressed current or anodes**
    - **How many rectifiers**
    - **Electrical isolation and stray current**
    - **Number of critical/non-critical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

# Corrosion Control Records

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



# Records

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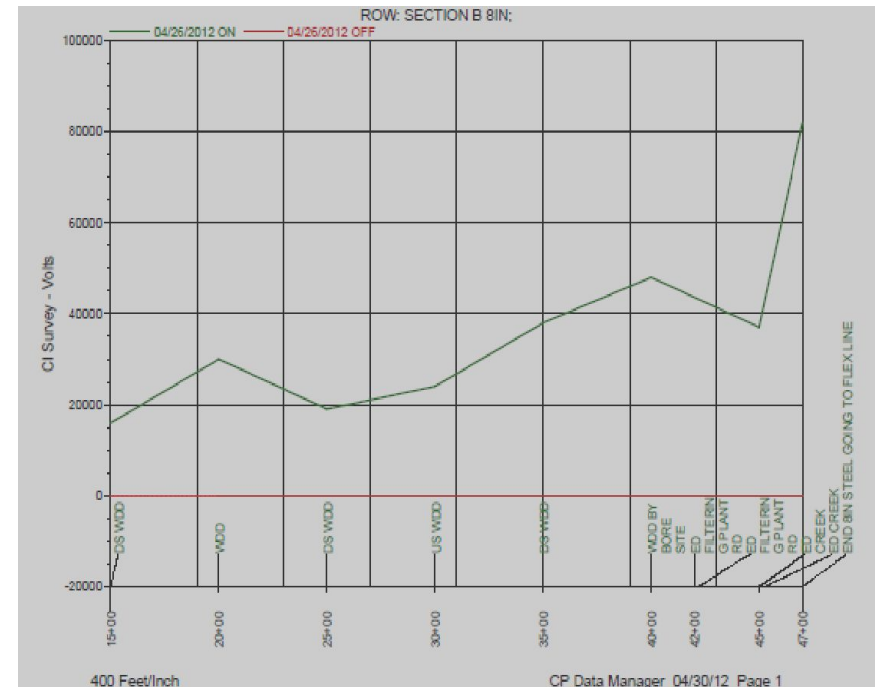
- **Casings**
  - Shorted casings/filled
  - Tests for shorted casings
  - How shorted casings are monitored
- **Electrical isolation**
- **Stray current problems**
  - HV power lines
  - Shared ROW's
  - Tests



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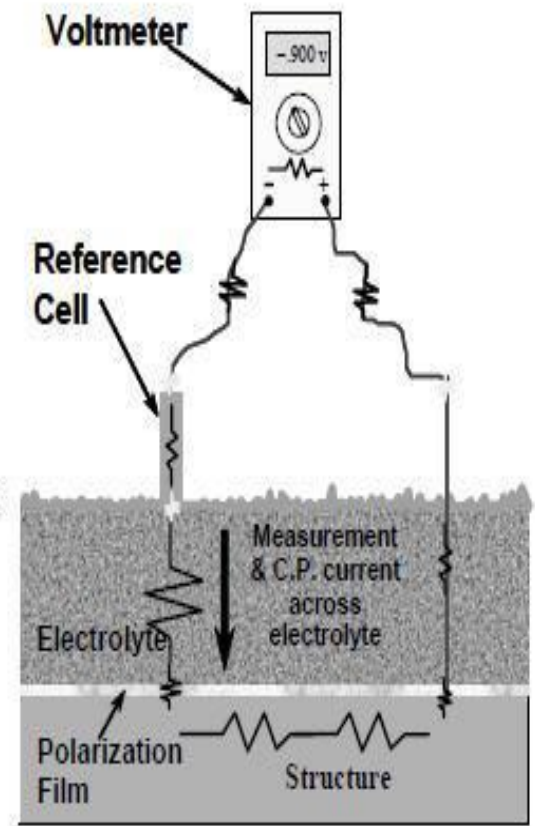
- Gas samples
- Bacteria cultures
- Water/solid samples
  - pH
- Coupons





# Records

- 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**

