

NGA Gas Pipeline Safety Regulations Workshop

Thinking Beyond the “Word” Compliance

192 Fundamentals

Pipeline Safety Reporting & Regulatory
Reference Guide



Importance

No one knows all of 192

Interpretations are different

Need to have the knowledge to question

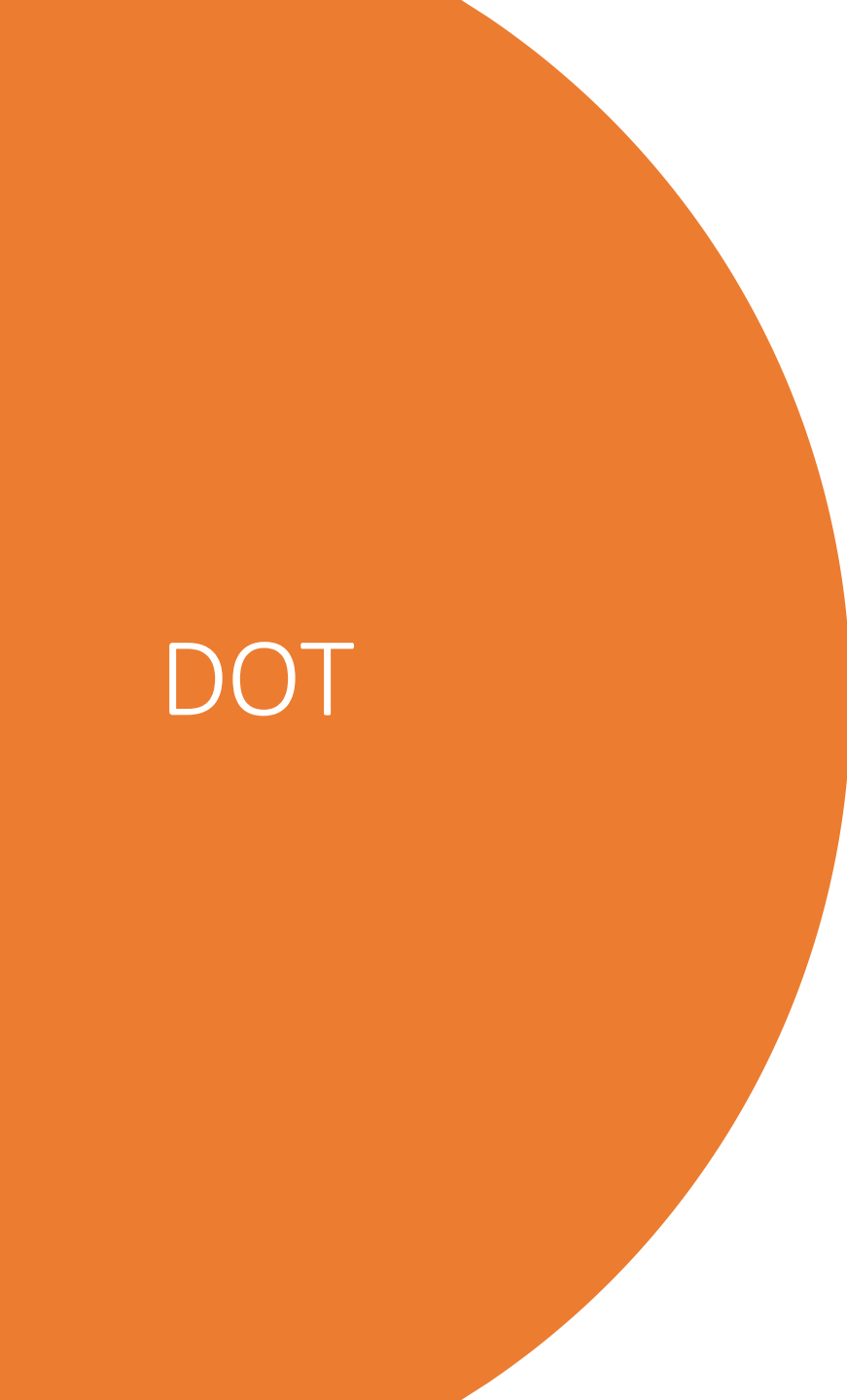


Historical Overview

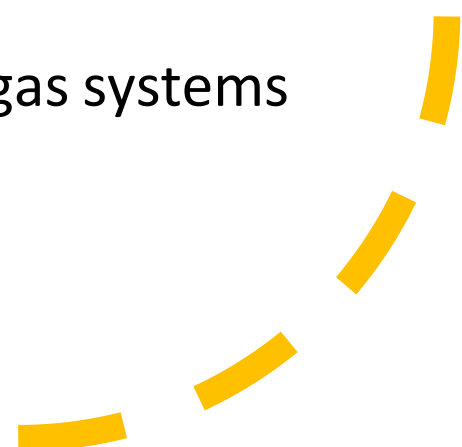
1968 Natural Gas Pipeline
Safety Act

Basis of current Part 192

Amended 133+ times, to
correct, modify and add
requirements



DOT

- Office of Pipeline Safety (OPS) was established to administer requirements of Natural Gas Pipeline Safety Act
 - Act covers all aspects of pipelines that deliver natural or other gases
 - OPS only focuses on gas transmission, distribution, and certain gathering lines as defined in Part 192.
 - This also includes jurisdictional LP gas systems and hydrogen
- 

Pipeline Codes

49 CFR 191 – Reporting
Requirements

49 CFR 192 – Gas Pipelines

49 CFR 193 – LNG

49 CFR 199 – Drug Testing

Other Documents

PHMSA Code
Interpretations

PHMSA
Advisory
Bulletins

PHMSA
Waivers or
Special Permits

PHMSA
Enforcement
Documents

Preambles to
Amendments

FAQ's

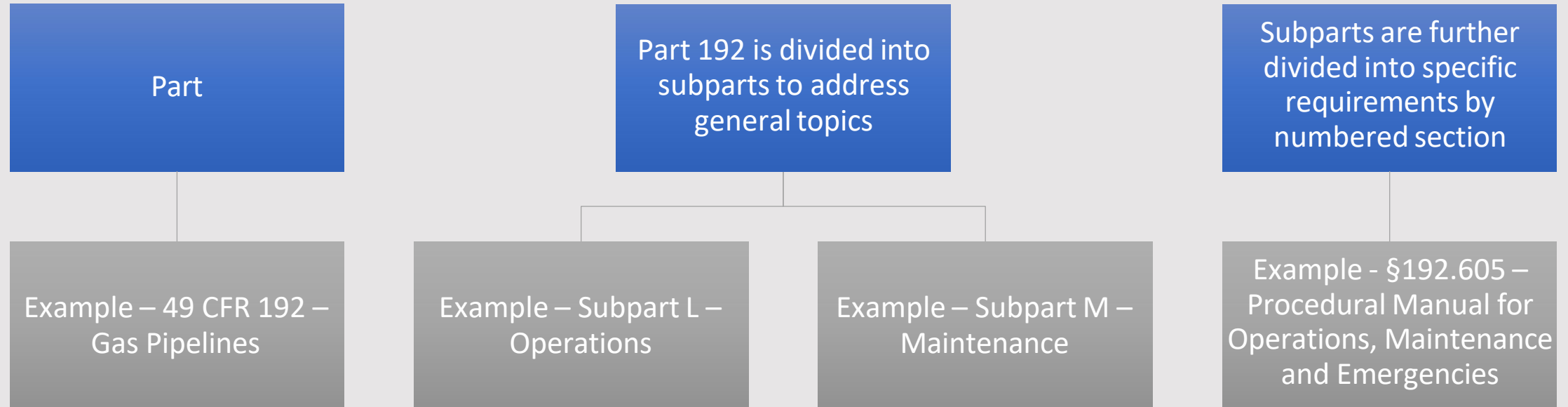
Other External Documents

- GPTC (Gas Piping Technology Committee)
- ASME B31.8
- Association Standards
 - NACE, ASTM, API
 - Some are incorporated by reference

Part 191 - Reporting

- Reporting Requirements
 - Incident
 - Annual
 - Safety Related Condition
 - National Pipeline Mapping System
 - §191.22
 - OPID Request
 - Construction (\$10 million or more)
 - Construction (10 miles or more)
 - Operator name change
 - Change in the entity responsible

Part 192



Part 192

Each section is typically written with paragraphs and subparagraphs to break down the subjects more specifically into individual requirements

Example - §192.615 (a)(3)(i) – requires an operator to respond promptly and effectively to gas detected inside or near a building.

Part 192



Understanding the regulation requires that each section, paragraph and subparagraph be read in its entirety, from beginning to end, especially punctuation



An operator is only required to follow sections that are specific to the pipeline installed and operated

Example – all steel system does not need to have requirements related to plastic

Part 192

- Transportation of Natural or Other Gases by Pipeline: **Minimum** Federal Safety Standards
 - Regulation governs design, operation, maintenance and construction of gas pipelines
 - These are the federal minimum standards
 - States may adopt additional more stringent regulations
 - Illinois has adopted additional regulations
 - Part 520 – Training
 - Part 590 – Submitting plans to the Commission
- 

Retroactive vs. Non- Retroactive

- Retroactive means - made effective as of a date prior to enactment
- Transportation of Natural or Other Gases by Pipeline: Minimum Federal Safety Standards
 - Divided into 16 different Subparts
 - Nine non-retroactive Subparts
 - Seven retroactive Subparts
 - Retroactivity based on §192.13

Retroactive Requirement

§ 192.13 What general requirements apply to pipelines regulated under this part?

(a) No person may operate a segment of pipeline listed in the first column of paragraph (a)(3) of this section that is readied for service after the date in the second column, unless:

(1) The pipeline has been designed, installed, constructed, initially inspected, and initially tested in accordance with this part; or

Retroactive Requirement

- § 192.13 What general requirements apply to pipelines regulated under this part?
- (b) No person may operate a segment of pipeline listed in the first column of this paragraph (b) that is replaced, relocated, or otherwise changed after the date in the second column of this paragraph (b), unless the replacement, relocation or change has been made according to the requirements in this part.

Non-Retroactive

Cannot apply to pre-existing pipelines, only facilities installed after March 12, 1971

Govern design, materials, construction and testing requirements for pipelines installed after March 12, 1971

Non-Retroactive Subparts

Designed

- Subpart B – Materials
- Subpart C – Pipe Design
- Subpart D – Design of Pipeline Components

Installed & Constructed

- Subpart E – Welding of Steel Pipelines
- Subpart F – Joining of Materials Other than by Welding
- Subpart G – General Construction Requirements for Transmission Lines and Mains
- Subpart H – Customer Meters, Service Regulators and Service Lines

Non- Retroactive Subparts

Tested

- Subpart J – Test Requirements

Inspected

- Subpart N – Qualification of Pipeline Personnel



Retroactive

Applies to **ALL**
existing pipelines,
regardless of the
date of construction

Governs operations
and maintenance of
pipeline facilities

Retroactive Subparts

- Subpart **K** – Upgrading
- Subpart **I** – Requirements of Corrosion Control
- Subpart **L** – Operations
- Subpart **A** – General
- Subpart **M** – Maintenance
- Subpart **O** – Pipeline Integrity Management
- Subpart **P** – Distribution Integrity Management
- Remember **KILAMOP** for retroactive sections

Procedures Requirements

§ 192.605 Procedural manual for operations, maintenance, and emergencies

(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response.

- This is the requirement for your O&M

Procedure Requirements

Public Awareness – 192.616

Emergency Plan – 192.615

Control Room Plan – 192.630

Operator Qualification – 192.805

TIMP – 192.907

DIMP – 192.1005

Procedure Requirements

§ 192.13 What general requirements apply to pipelines regulated under this part?

(c) Each operator **shall** maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part.

- Requirement for construction standards (non-retroactive sections)
- Same procedures may be used during operations or maintenance
- Procedures may be in the O&M

Operator Determination

§ 192.3 Definitions

Operator means a person who engages in the transportation of gas.

Gas means natural gas, flammable gas, or gas which is toxic or corrosive.

Operator Determination

§ 192.3 Definitions

- *Person* means any individual, firm, joint venture, partnership, corporation, association, State, municipality, cooperative association, or joint stock association, and including any trustee, receiver, assignee, or personal representative thereof.
- *Municipality* means a city, county, or any other political subdivision of a State.

Operator Determination

§ 192.3 Definitions

Transportation of gas means the gathering, transmission, or distribution of gas by pipeline or the storage of gas, in or affecting interstate or foreign commerce.

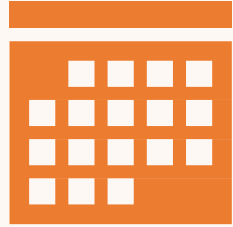


Regulation Types

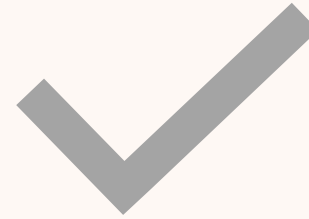
Prescriptive – Telling people what they should do, rather than simply giving suggestions or describing what is done.

Performance Based – Allows the operator to determine the best approach to comply with the regulation.

Prescriptive Regulation

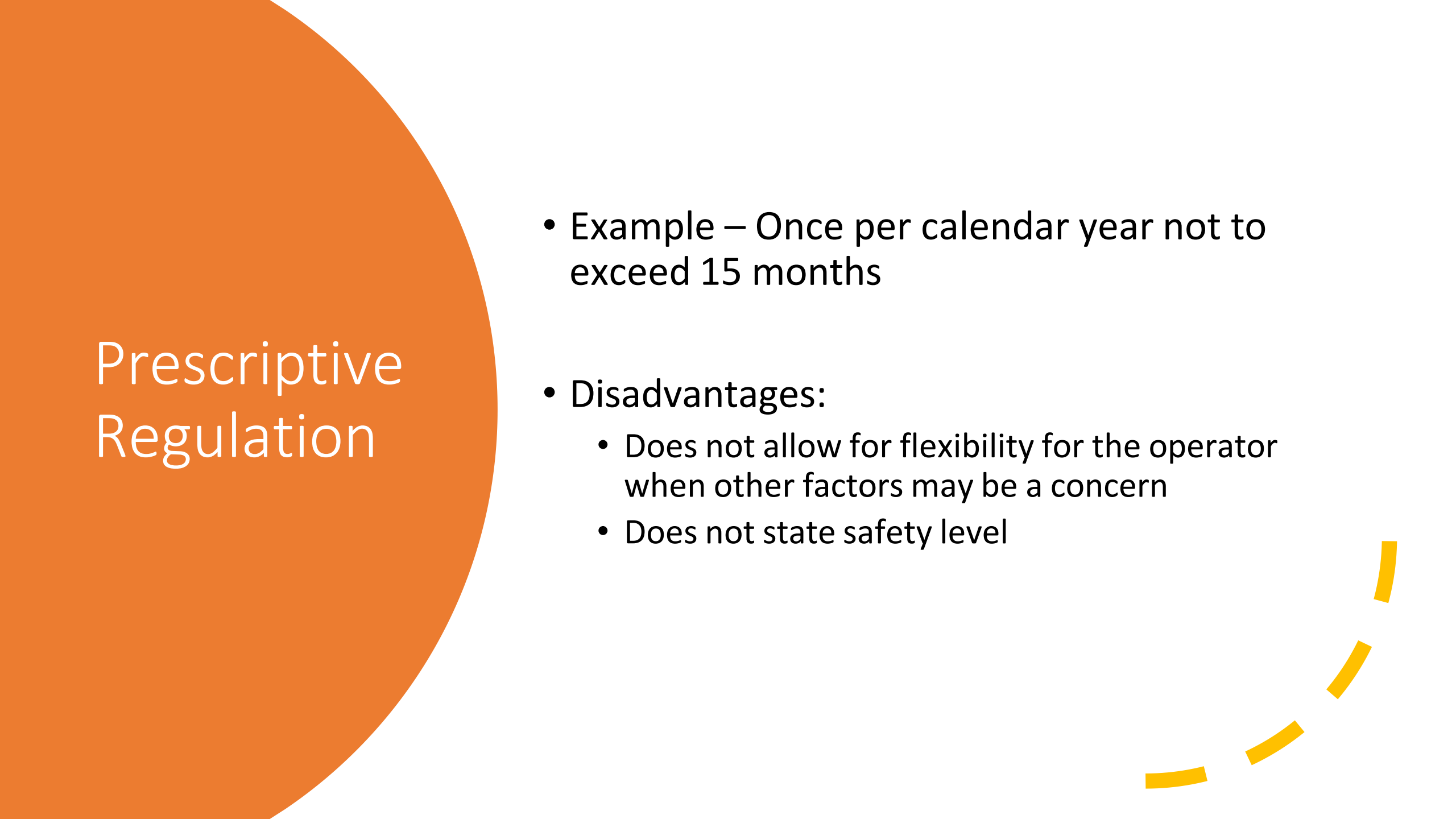


**Example – Once per calendar year
not to exceed 15 months**



Advantages:

Easy to determine compliance
Easy to determine course of action
Give uniform means of compliance



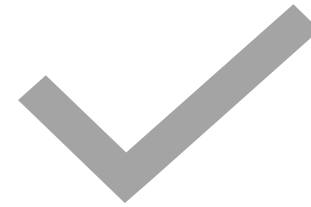
Prescriptive Regulation

- Example – Once per calendar year not to exceed 15 months
- Disadvantages:
 - Does not allow for flexibility for the operator when other factors may be a concern
 - Does not state safety level

Performance Based



Example – Odorization of gas



Advantages:

Allows adaptation to individual situations

Encourages development of new equipment

Most economical solution to achieve the desired level of safety

Promotes safety and not letter of the law

Performance Based



Example – Odorization of gas

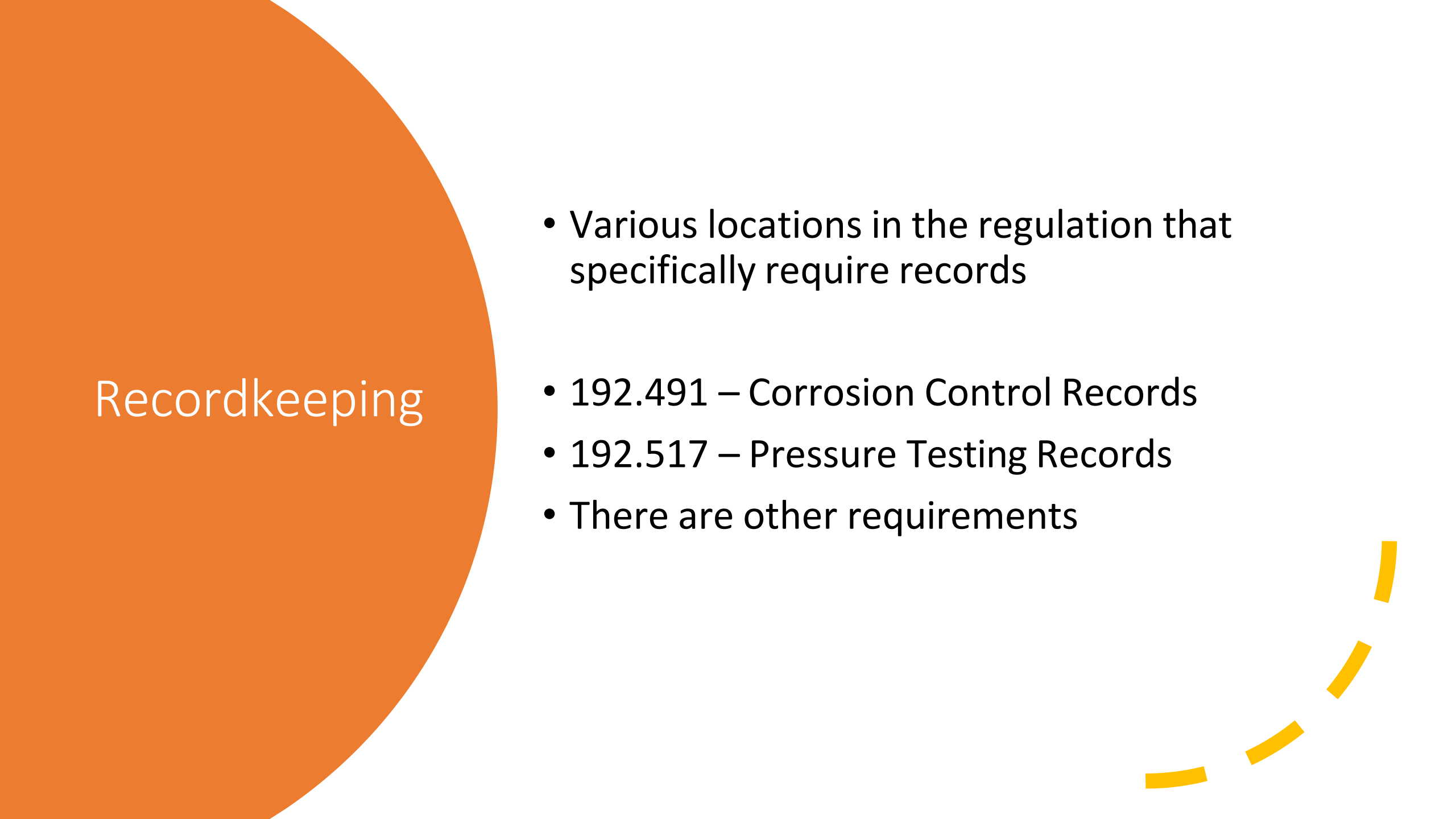


Disadvantages:

Difficult to determine compliance

Operators may not understand what is needed

May create improper solutions and safety problems



Recordkeeping

- Various locations in the regulation that specifically require records
- 192.491 – Corrosion Control Records
- 192.517 – Pressure Testing Records
- There are other requirements

Recordkeeping

192.603 General Provisions

- Each operator shall keep records necessary to administer the procedures established under § 192.605.

This regulation requires records for .605

.605 touches numerous areas and requirements

Recordkeeping

- Two types of records
 - Life of facility
 - Includes construction, materials, repairs and MAOP
 - Retain for as long as the facility is active
 - Limited records
 - Includes tests, inspections, patrols or surveys which prove compliance with 49 CFR 192
 - Retain for 5 years plus current year
 - DIMP requires records to be maintained for 10 years

Recordkeeping

- Lack of records consistently one of top 5 violations
- Need to improve maintaining records and storing records
- Remember retention requirements
- **NO RECORDS = DID NOT PERFORM THE WORK**