



The Meaning of “Should”

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March 27, 2024



The Road Ahead

- “Should” vs. “Shall”
- Important Provisions
- Lessons Learned
- Tough Decisions





“Should” vs “Shall”

A Quick Dictionary Check

Definition of Should

Obligation, duty, necessity.

Usage: *Should*, in indicating obligation or necessity, is somewhat weaker than *ought* and appreciably weaker than *must*.

- *American Heritage Dictionary*

Relevance

- Provisions in RAGAGEP often denoted as *shall* or *should* requirements (or with synonymous terms)
- The enforcement weight behind these terms is not intended to be equal.

OSHA's Take

- “Should provisions are acceptable and preferred practices but are not mandatory are written”
 - 2016 PSM Enforcement Memo
- “Only the mandatory provisions, i.e., those containing the word “shall” or other mandatory language of standards incorporated by reference, are adopted as standards under the Act.”
 - OSHA Field Operations Manual, Chapter 4, Section L.A.
- "Shall" and "should" provisions in internal documents treated the same as RAGAGEPs

So why execute additional requirements?

- Some “should” provisions are **CRITICAL** to process safety, and in particular asset integrity.
- Some “should” provisions are incorporated into state and local law and regulation
 - Such as NFPA RAGAGEPs



Should all "should" provisions be adopted?

- No
- Adoption should be based on relevance and risk
- Some "shoulds" are for routine issues, documentation practices, etc.
- In 12 commonly used RAGAGEPs (e.g., API 510, API-570, etc.) there are 3,263 "shoulds," so some targeted selection is necessary



Examples of Important “Should” Provisions

Relief Valve Testing & Inspection

- API 576 (4th Ed.) states that as-received pop tests (ARPT) on relief valves *should* be performed as a first task before valve disassembly, cleaning, or repair.
- Without an ARPT, there is no way to know if the relief valve would have lifted at the desired set pressure, and if it would have performed its safeguard function adequately while installed in the process

Facility Siting

- API 752 (3rd Ed.) and API 753 (1st Ed.) state that buildings with no personnel assigned, but occupied by individuals for a short duration *may* be included or excluded in a building siting evaluation.
- Owner/operators *should* periodically confirm the occupancy of physical buildings.
- Without a periodic audit of these buildings, occupancy and risk profiles can change.



Piping Inspections

- API 570 states that inspection for CUI *shall* be considered for externally insulated vessels...and the inspector *should* consider areas most susceptible to CUI
- CUI is often not inspected for specifically. Damaged insulation is not always an effective proxy for CUI potential.
- Alternatives such as insulation removal or advanced NDE can be time consuming and costly.

Dead Leg Inspections

- API 570 states (in summary) that deadlegs in piping *shall* be included in inspection programs, and has a number of “should” provisions with respect to piping dead leg inspection practices.
- Experience shows that often deadlegs do not receive more than the standard visual inspection and ultrasonic thickness monitoring of other pipe circuits, which may not be sufficient to analyze localized damage mechanisms.

Deferrals of Fixed Equipment Inspection

- Key Concept – Deferrals are optional. When a deferral of an ITPM task is optioned by an owner, the “should” requirements for deferrals become mandatory provisions.
 - Performance of documented risk assessment
 - Simple vs. regular deferral
- Deferrals... *should* be the occasional exception, not a frequent occurrence.
 - In practice, deferrals are often driven by a desire to avoid overdue tasks or prevent production interruptions.

Positive Material Identification

- API 578 was published to mitigate issues with paper-based methods of verifying material composition of components (especially consumption components such as piping, bolts, and gaskets) installed in the pressure boundary of processes.
- Contains a number of “should” provisions

Assembly of Flanged Piping Joints

- ASME-PCC-1 provides details guidance, mostly in “should” language around assembly of flanged piping, as well as quality control guidance.
- Such guidance exists in “shall” language in ASME codes for welding and pressure vessels.

Additional Relevant “Should” Provisions

- More piping inspection "shoulds," e.g., flex hoses, expansion joints, mixing tees, injection points
- Supplemental RAGAGEPs for PVs, piping, CUI, and AST inspections (API 572, API 574, API 583, API 575)
- API 573 Inspection of Boilers & Fired Heaters
- NFPA 25 Inspection & Testing of Water-Based Fire Protection Systems
- NFPA 30 Flammable & Combustible Liquids Code
- NFPA 25 – Fire Protection Impairments and Deficiencies
- API 754 – Process Safety Metrics
- ACC Product Stewardship Manual for Ethylene Oxide



Implementation Lessons Learned

How to Proceed

- Not all “should” provisions provide the same benefits and risk reduction to all operations.
 - Is the risk addressed by a “should” provision addressed in another manner?
 - Does the “should” provision address broad or systemic process safety issues?
 - Has a “should” provision, or lack of adherence to one, been a contributor to a process safety incident or near miss?

A Note of Caution

- OSHA's 2016 enforcement guidance on the definition of a RAGAGEP includes internal procedures in the same interpretation of "should" and "shall"



- There can be multiple language variants of "shall" and "should" ... such as "must" and "may".
- **Context is important to understand how these terms are used in a particular RAGAGEP provision.**

Tough Decisions



Takeaways

- Don't ignore an important risk reduction measure to your facility because it is included in a “should” provision.
- Treating key “should” provisions as completely optional will likely result in increased process safety risk.
- “Should” provisions are intended to provide the facilities additional flexibility in addressing risks appropriate to their operation. This could include alternative tasks, activities, and frequencies.

Thank you!

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