

A photograph of an offshore oil rig at sunset. The rig is silhouetted against a sky with orange and yellow clouds. The rig's reflection is visible in the calm water below. The overall scene is serene and industrial.

2022 Annual Performance Report Webinar

September 25, 2023

API Antitrust Guidelines

It is API's policy to comply with the antitrust laws. API staff and API committee participants should observe the following guidance:

- No discussion or forecasting of prices for goods or services provided by or received by a company.
- No sharing or discussing any company's confidential or proprietary information.
- No discussion of a company's specific purchasing plans; merger/divestment plans, production information, inventories or costs.
- No sharing or discussion of specific company compliance cost, unless publicly available.
- No agreement or discussion regarding the purchase or sale of goods or services (such decisions are independent company decisions).
- No discussion of how individual companies intend to respond to potential market/economic scenarios or government action; discussion limited to generalities.
- No disparaging remarks and no promotional remarks regarding specific vendors, products or services.

If a discussion presents an antitrust issue, raise your concern immediately. If the discussion continues, announce that you are leaving the meeting because you have an antitrust concern, and immediately report your concern to API's Office of the General Counsel and to your company's own counsel.

This Reference is not a comprehensive summary of antitrust issues, nor is it a substitute for legal advice. Antitrust issues should be raised with API's Office of the General Counsel and/or the member company's own antitrust counsel.



Presenters

Russell Holmes, COS

Christy Lafferty, Oceaneering

Kevin Roberts, Baker Hughes

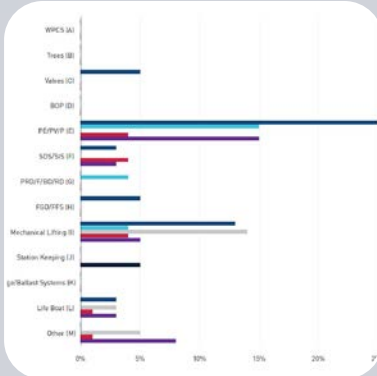
Dustin Campbell, Valaris

Kate Solomon, Hess

Lon Langlois, Hess

Deb Sanders, Equinor

COS Activities



SEMS AUDITS & CERTIFICATES

Audit Planning and Reporting
Corrective Action Plans

DATA COLLECTION, ANALYSIS & REPORTING

Annual Performance Report
Safety Shares

GOOD PRACTICE DEVELOPMENT

Safety Culture
SEMS Maturity
Learning from Normal Work

SHARING INDUSTRY KNOWLEDGE

Committees
Webinars
COS Forum
OTC

ACCREDITATION BODY

Audit Service Providers
Recognized AB for BSEE
SEMS Certificates

Why are we here?

Stimulate cooperation within the industry to share good practices and learn from each other

Provide a platform for collaboration between industry, the government, and other stakeholders



How is COS data used?



Overview:

**Safety Performance
Indicators (SPI) Program**

**Learning from Incidents
& Events (LFI) Program**

Safety Performance Indicators – US OCS

Operator:

- SPI 1-10
- Work Hours
- ALL incidents – operator and contractor - within 500m of lease
- SPI 5 for Operator owned facilities and equipment

Contractor:

- SPI 1-4, 6-10 Incidents outside 500m or for non-COS Operators
- SPI 5 for Contractor owned facilities and equipment

SPI 1 is the frequency of incidents that resulted in one or more of the following:

- A. Fatality
- B. Five or more injuries in a single incident
- C. Tier 1 process safety event
- D. Level 1 Well Control Incident - Loss of well control
- E. \geq \$1 million direct cost from damage to or loss of facility / vessel / equipment
- F. Oil spill to water \geq 10,000 gallons (238 barrels)

SPI 2 is the frequency of incidents that do not meet the SPI 1 definition but have resulted in one or more of the following:

- G. Tier 2 process safety event
- H. Collision resulting in property or equipment damage $>$ \$25,000
- I. Mechanical Lifting or Lowering Incident
- J. Loss of station keeping resulting in a drive off or drift off
- K. Life boat, life raft, rescue boat event
- L. Level 2 Well Control Incident - Multiple Barrier Systems Failures and Challenges

SPI 3 is the number of SPI 1 and SPI 2 incidents that involved failure of one or more pieces of equipment as a contributing factor.

SPI 4 is a crane or personnel/material handling operations incident.

SPI 5 is the percentage of planned critical maintenance, inspection and testing (MIT) completed on time. Planned critical MIT deferred with a formal risk assessment and appropriate level of approval is not considered overdue.

SPI 6 is number of work-related fatalities.

SPI 7 is the frequency of days away from work, restricted work, and job-transfer injury and illnesses (DART).

SPI 8 is the frequency of recordable injuries and illnesses (RIIF).

SPI 9 is the frequency of oil spills to water \geq 1 barrel.

SPI 10 is the severity potential of incidents involving a dropped object.

Learning from Incidents & Events

SPI 1 and SPI 2 Incidents

- Following the completion of any incident investigations
- Only 1 form per incident – usually submitted by company that did the investigation.

High Value Learning Events (HVLE)

- Incidents that didn't rise to the level of an SPI 1 or SPI 2, but that still provide valuable insight and learnings.
- Near misses / Close calls

- US OCS
- US Onshore/State Waters
- International

Learning from Incidents & Events

Incident Description

- Activities, conditions, and acts
- Number of people involved and their roles

Corrective Actions

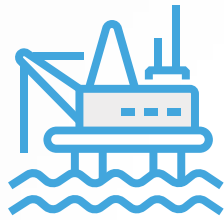
- Actions taken at time of incident to mitigate consequences and secure people, equipment, and facility

Lessons Learned

- Actions taken as a result of incident to prevent recurrence at all locations

***NEW for
2022RY***

LFI - Areas for Improvement (AFI)



Physical Facility, Equipment, and Process

- Design or Layout of a Facility or Individual Piece of Equipment
- Facility or Equipment Material Specification, Fabrication and Construction, or Quality Control
- Facility or Equipment Reliability
- Instrument, Analyzer and Controls Reliability



Administrative Processes

- Risk Assessment and Management
- Operating Procedures or Safe Work Practices
- Management of Change
- Work Direction or Management
- Emergency Response



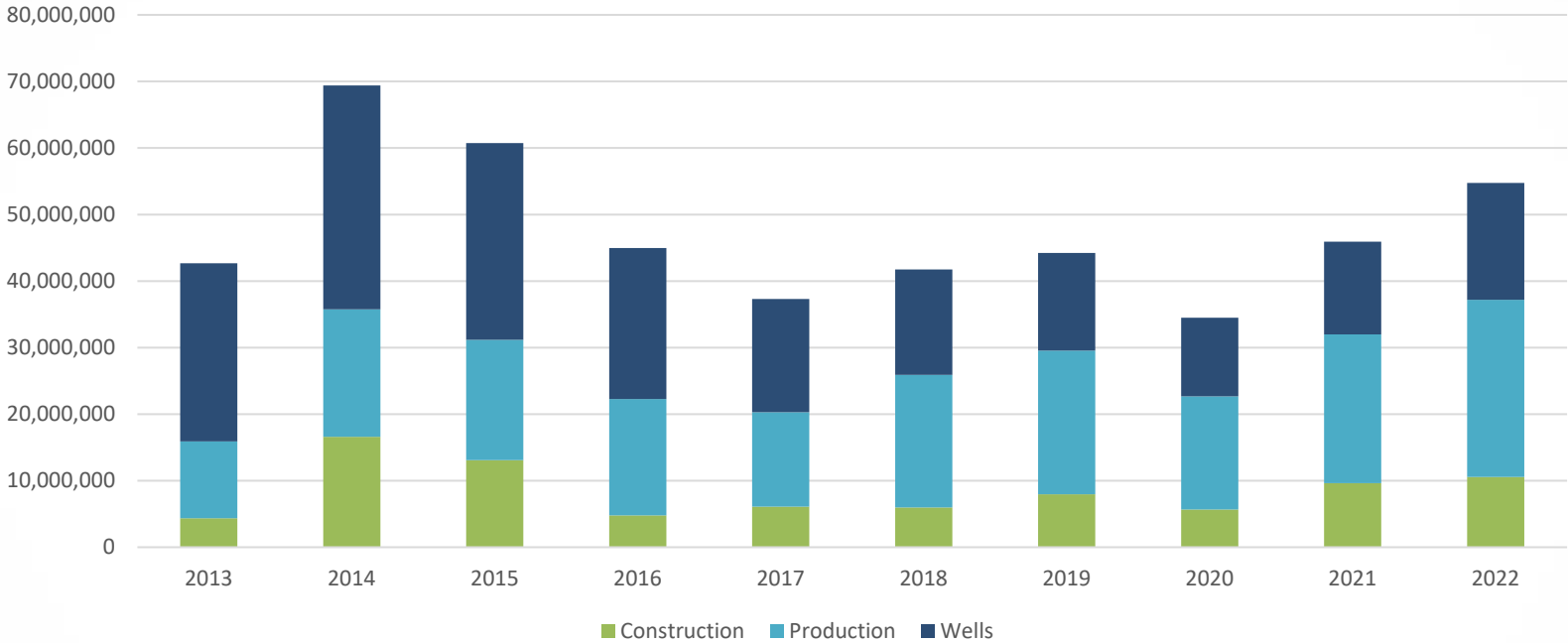
People

- Personnel Skills or Knowledge
- Quality of Task Planning and Preparation
- Individual or Group Decision Making
- Quality of Task Execution
- Quality of Hazard Mitigation
- Communication



2022 Reporting Year SPI Data

Work Hours (Normalization Factor)



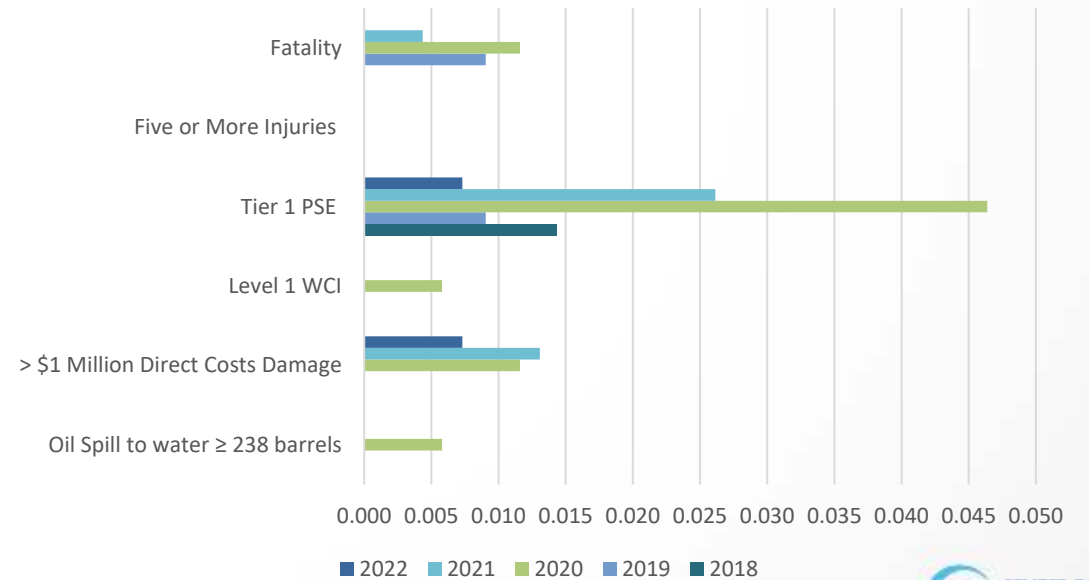
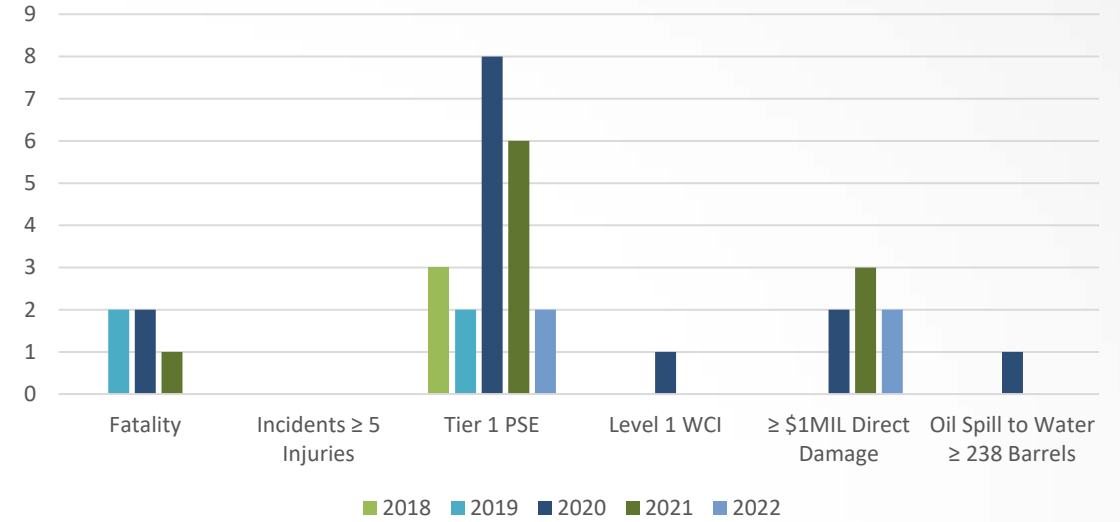
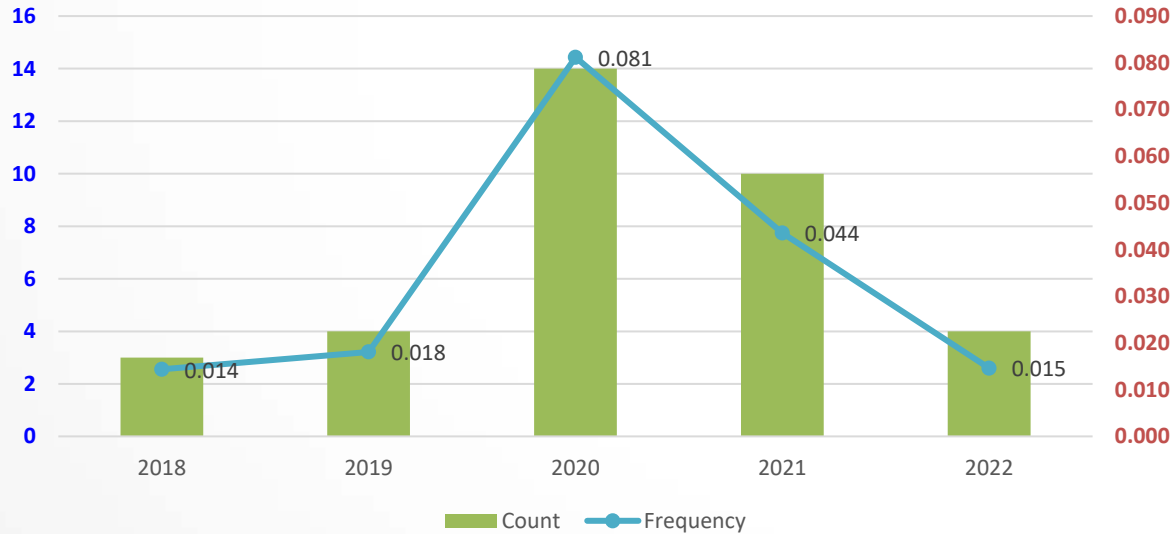
Year	2018	2019	2020	2021	2022
COS U.S. OCS Work Hours (millions)	41.7	44.2	34.5	45.9	54.7



SPI 1

2022

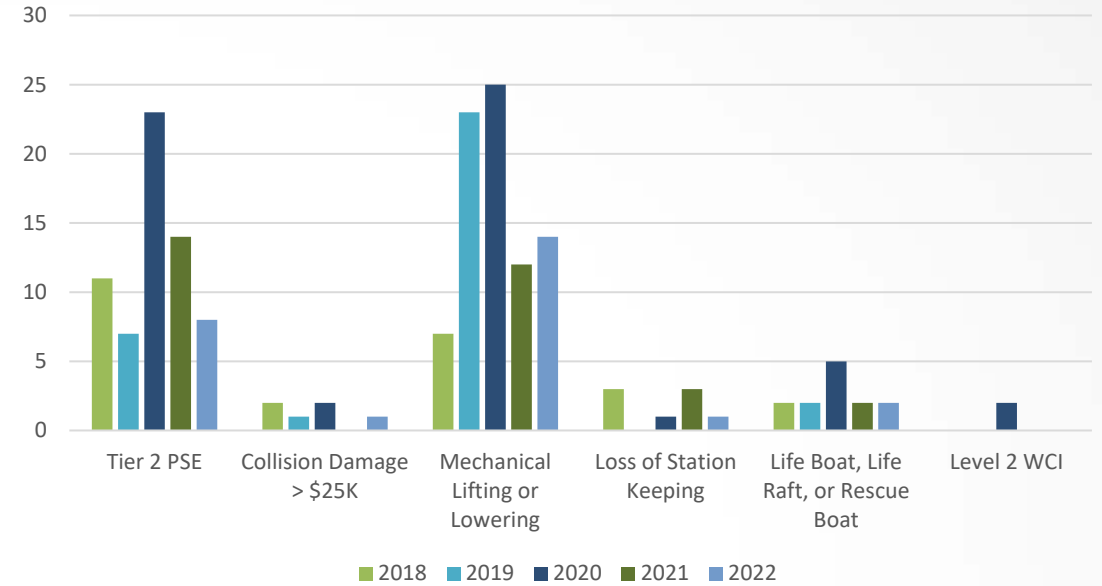
Incidents involving 1 or more fatalities	0
Incidents with injuries to 5 or more	0
Tier 1 process safety events	2
Level 1 well control incidents	0
Incidents resulting in damage \geq \$1MIL	2
Oil spill to water \geq 238 bbl (10k gallons)	0



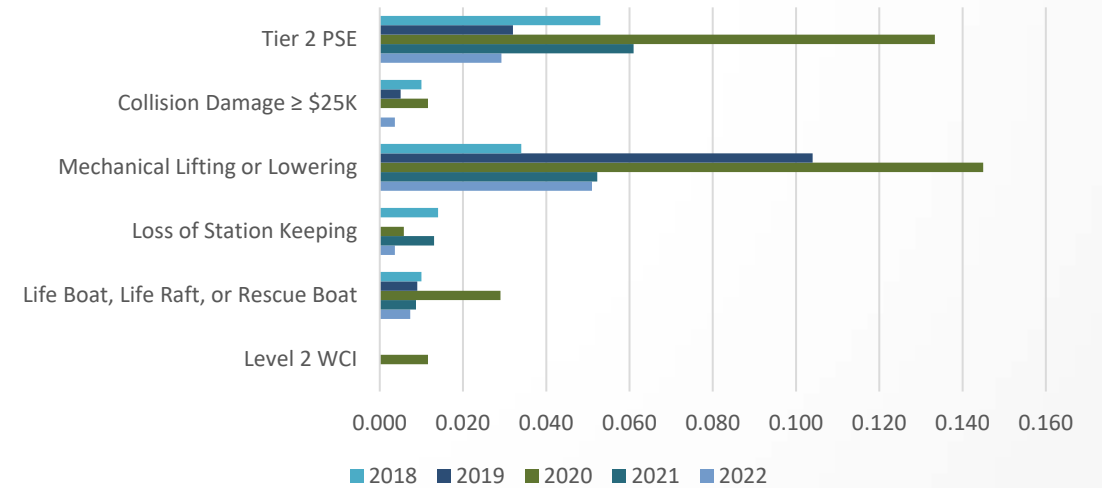
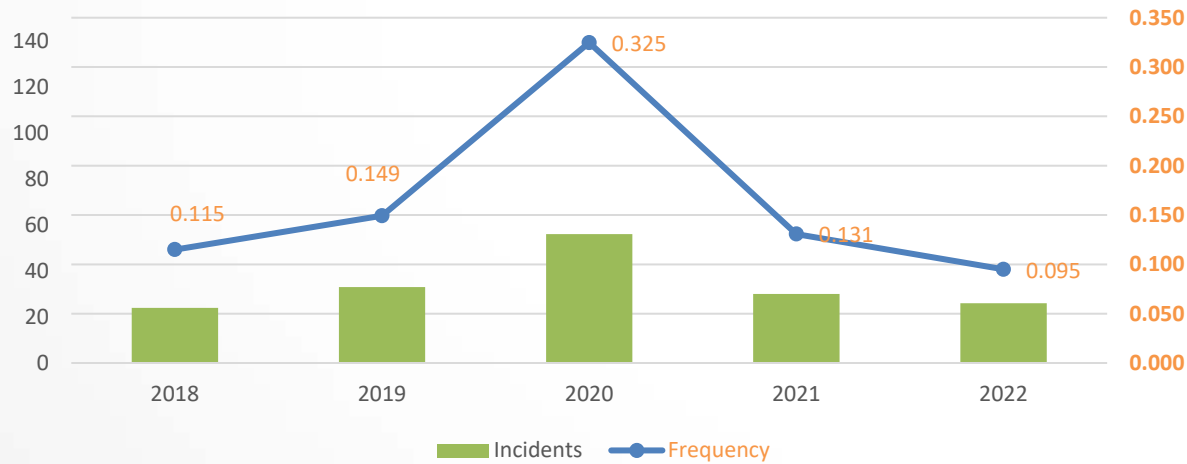
SPI 2

2022

Tier 2 process safety events	8
Collision damage ≥ \$25,000	1
Mechanical lifting incidents	14
Loss of station keeping	1
Lifeboat, life raft, rescue boat	2
Level 2 well control incidents	0

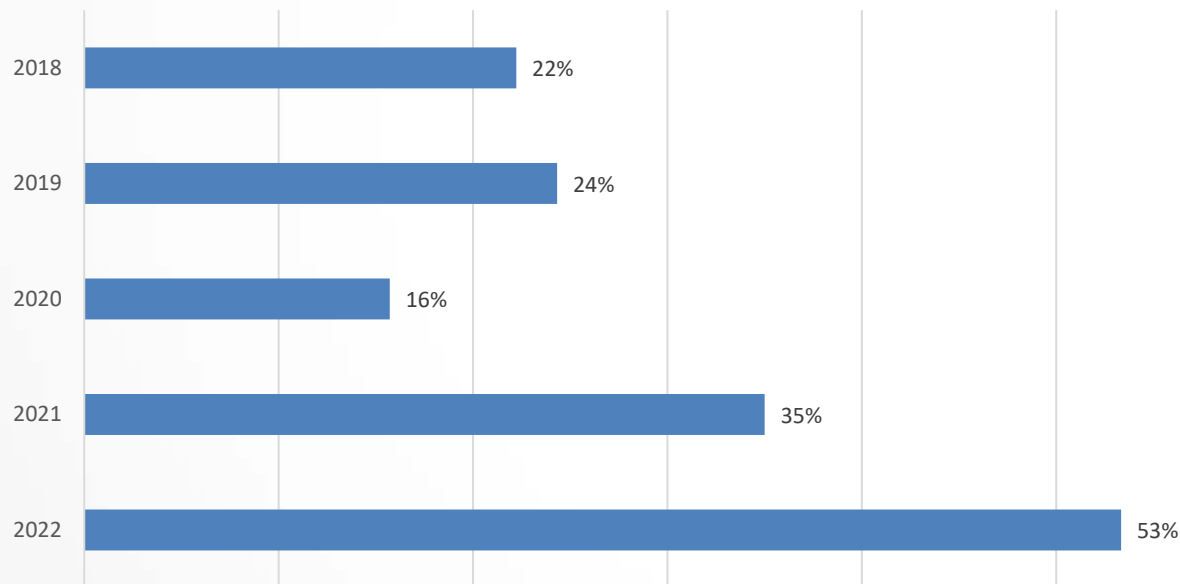


SPI 2 Incident Count and Frequency



SPI 3

SPI 3 is the number of SPI 1 and SPI 2 incidents that involved failure of one or more pieces of equipment as a contributing factor.



- 30 SPI 1 and SPI 2 Incidents Reported
- 16 (53%) of those 30 cited failure of equipment as a contributing factor
- Equipment Types:
 - 5 - Process Equipment/Pressure Vessels/Piping
 - 2 - Pressure Relief Devices/Flares/Blowdown/Rupture Disks
 - 5 - Mechanical Lifting Equipment/Personnel Transport Systems
 - 1 - Fire/Gas Detection and Fire Fighting Systems
 - 2 - Lifeboat/Life Raft/Rescue Boat/Launch and Recovery Systems
 - 1 - Other

LFI Report – High Value Learning Event

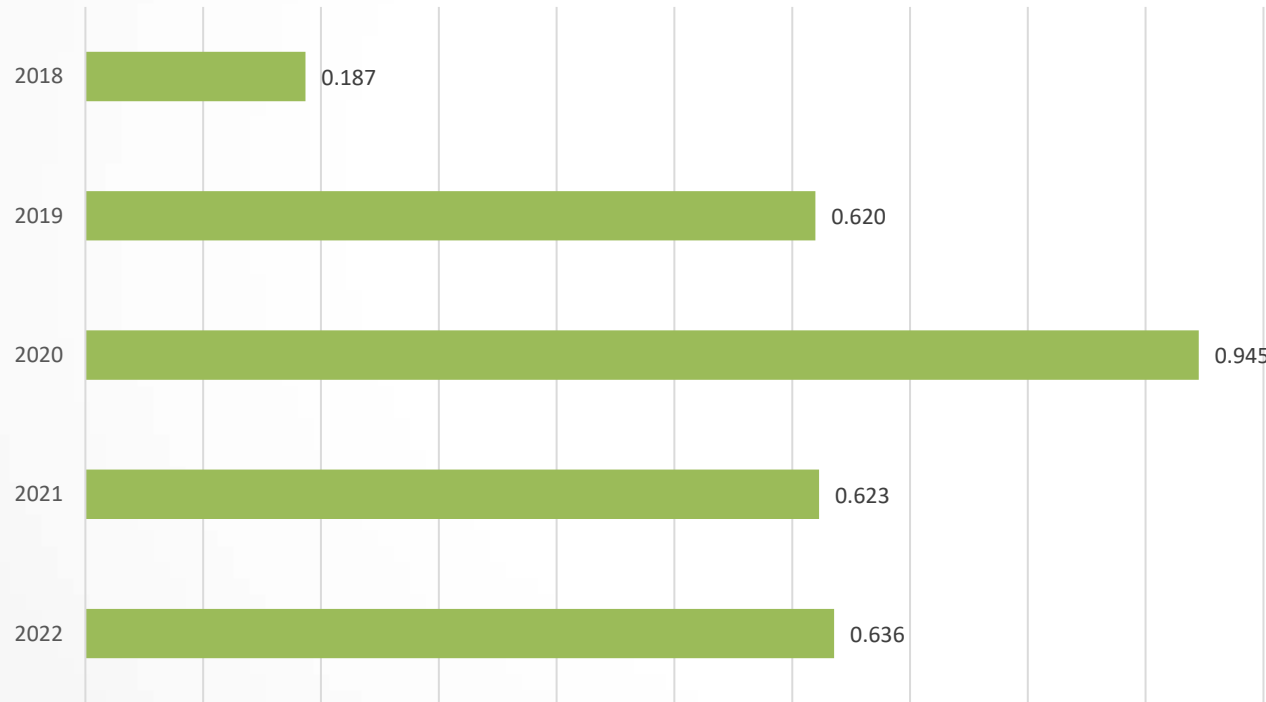
Incident Description: A contract Coiled tubing crew was in the process of rigging down coil equipment. Part of the process required the hook up of a Nitrogen bottle rack to blow compressed nitrogen into the coil tubing to flush fluids from within. The IP opened one of the nitrogen bottle valves to begin the process when the brass nipple connecting the hose to the bottle rack broke at the hose fitting. The hose, now under pressure started whipping and struck two separate IPs. One IP was struck on the right hand with causing minor laceration and bruising, the other on the right forearm with abrasions and bruising. The IP that was struck in the hand resulted in two fractured fingers.

Corrective Actions – At time of incident: Replace the failed equipment and ensured that safety whip checks were in place as required by contractor's safe work practices.

Lessons Learned – Following incident: Post incident investigation identified failure to identify two prominent causal factors. Nitrogen bottle racks and associated hoses were delivered to location without the appropriate safety devices (whip checks) installed. The procedure for blowing the reel dry and rigging up the nitrogen bottle racks was not risk assessed and identified on the JSA. Actions taken to prevent recurrence included Safety Alert dissemination, notification to suppliers to include appropriate safety equipment, and discussion with employee about Stop Work Authority utilization when equipment is not up to standards and lack of inclusion in the JSA.

SPI 4

SPI 4 is a crane or personnel/material handling operations incident.

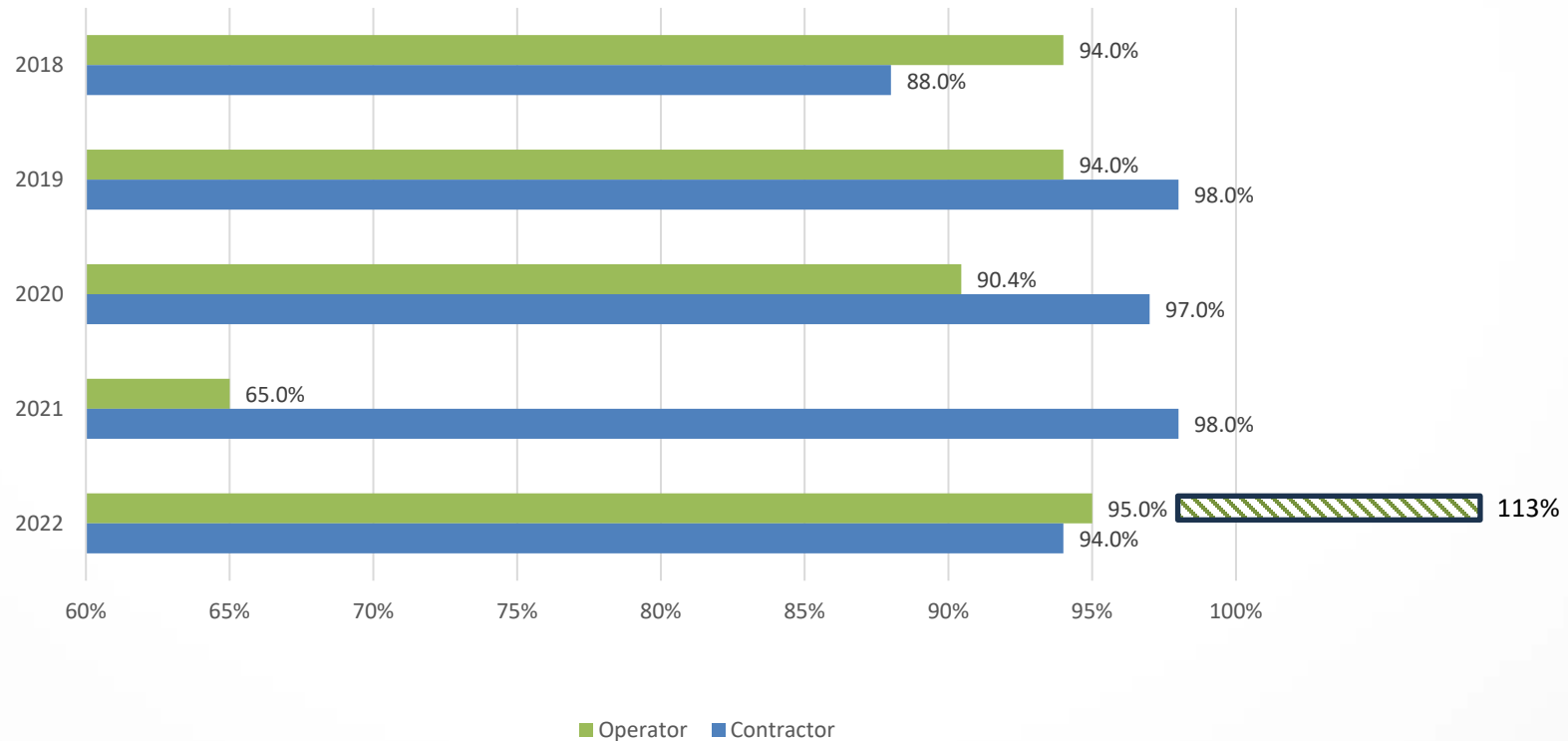


	2021	2022
Count	143	174
Rate / 200k Hours	0.623	0.636



SPI 5

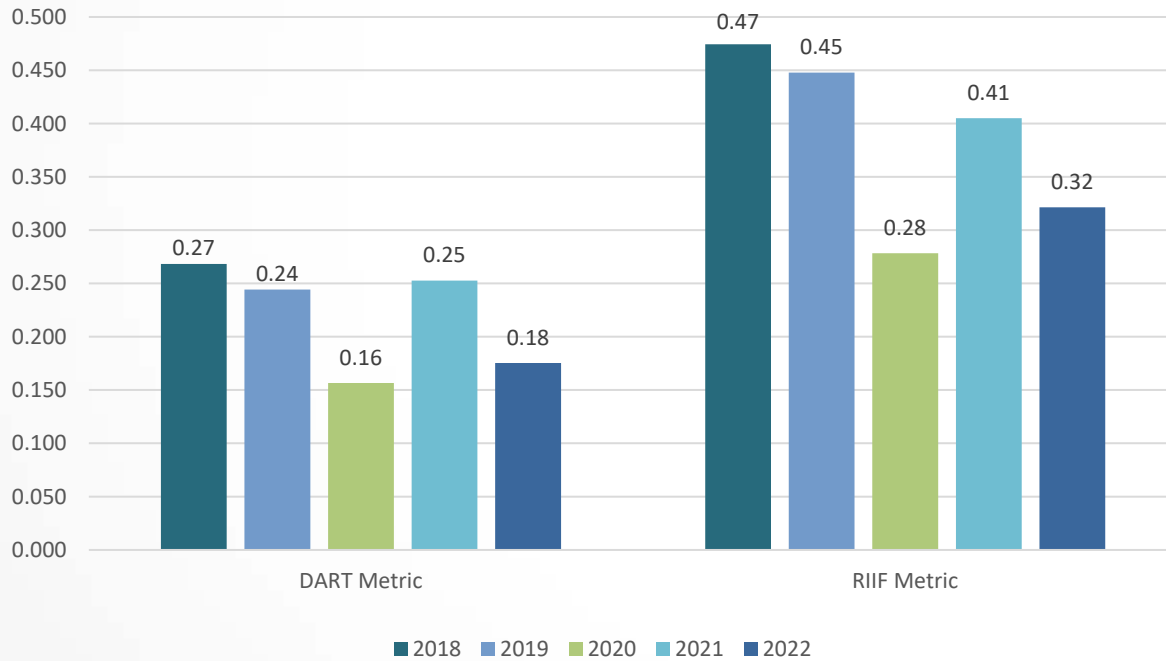
SPI 5 is the percentage of planned critical maintenance, inspection and testing (MIT) completed on time. Planned critical MIT deferred with a formal risk assessment and appropriate level of approval is not considered overdue.



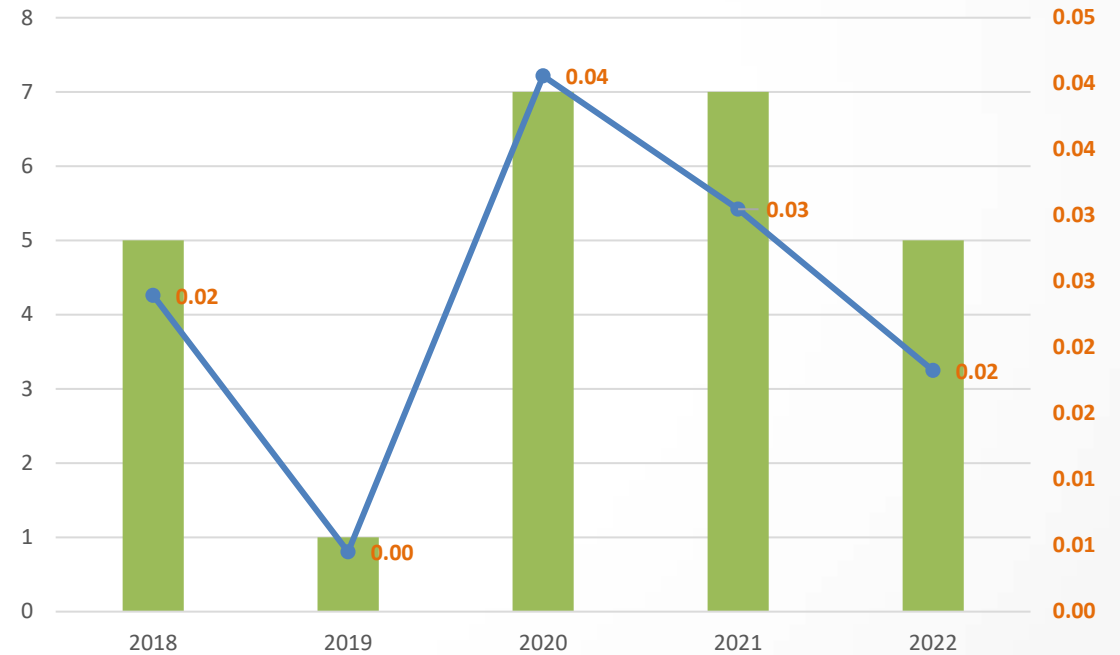
SPI 6-9

SPI 6 is number of work-related fatalities
SPI 7 is the frequency of days away from work, restricted work, and job-transfer injuries and illnesses (DART)
SPI 8 is the frequency of recordable injuries and illnesses (RIIF)
SPI 9 is the frequency of oil spills to water ≥ 1 barrel

SPI 7 & SPI 8



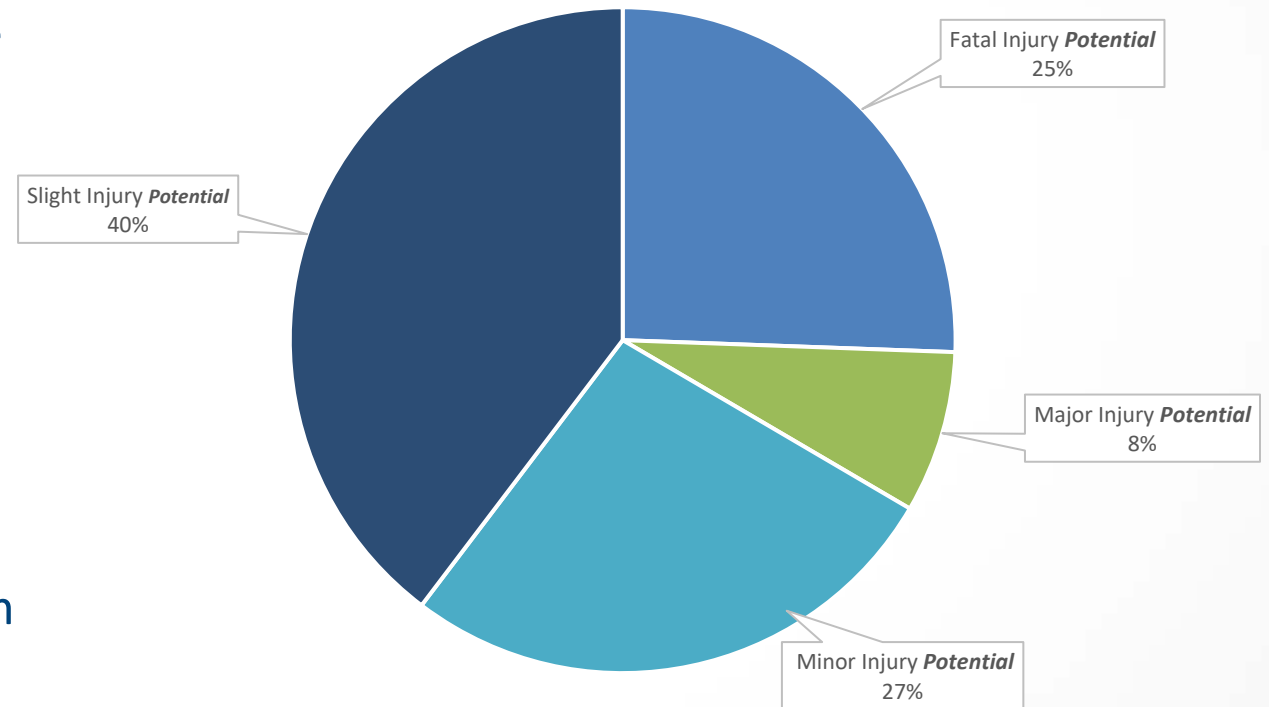
SPI 9



SPI 10

SPI 10 is the severity *potential* of incidents involving a dropped object

- Based on definitions developed by the [DROPSOnline](#) network
- 305 Dropped Objects reported
 - 121 Slight injury *potential*
 - 82 Minor injury *potential*
 - 24 Major injury *potential*
 - 78 Fatal injury *potential*
- 255 of 305 (84%) resulted in zero harm



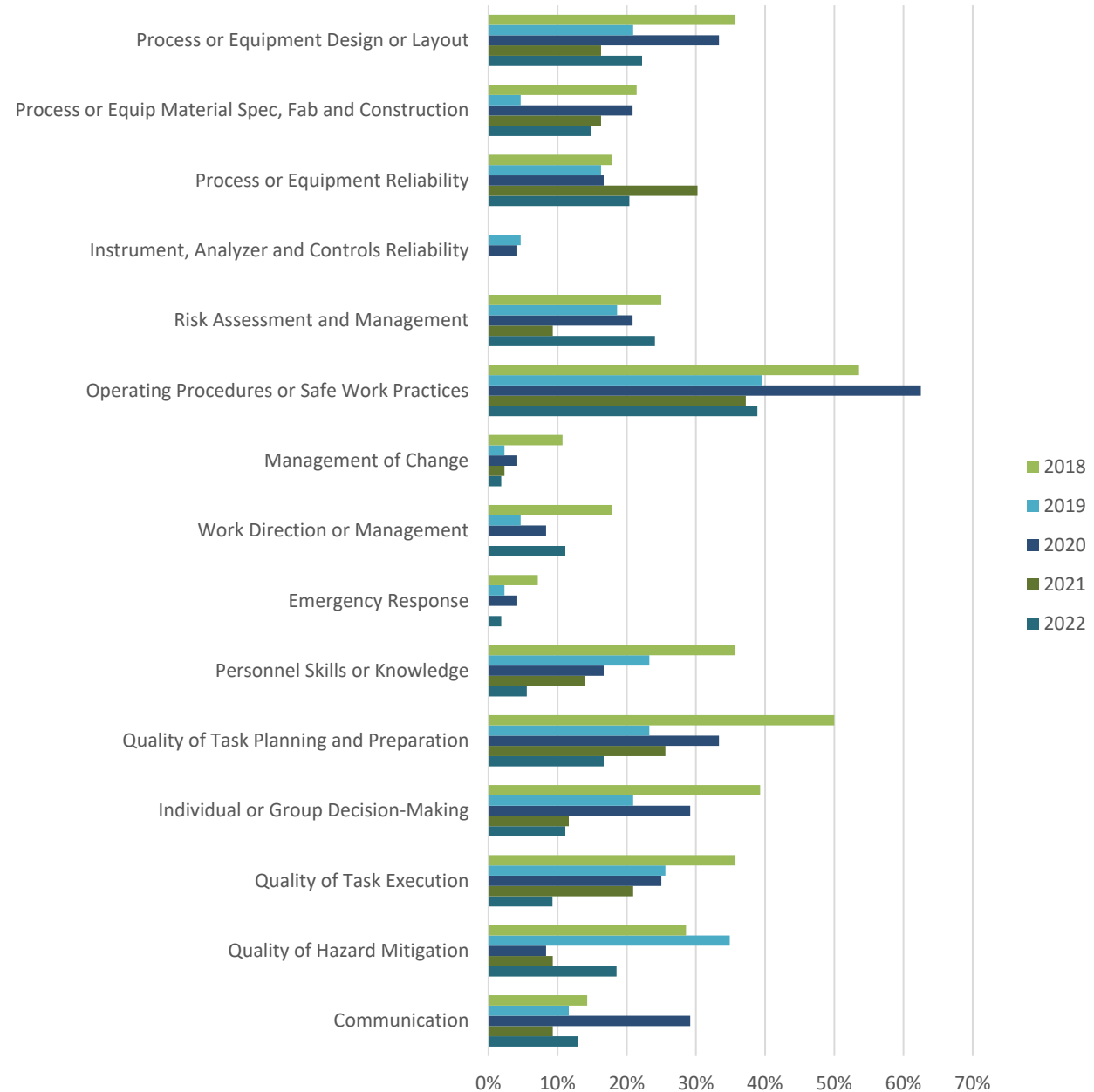


2022 Reporting Year LFI Data

Areas for Improvement U.S. OCS 2018-2022

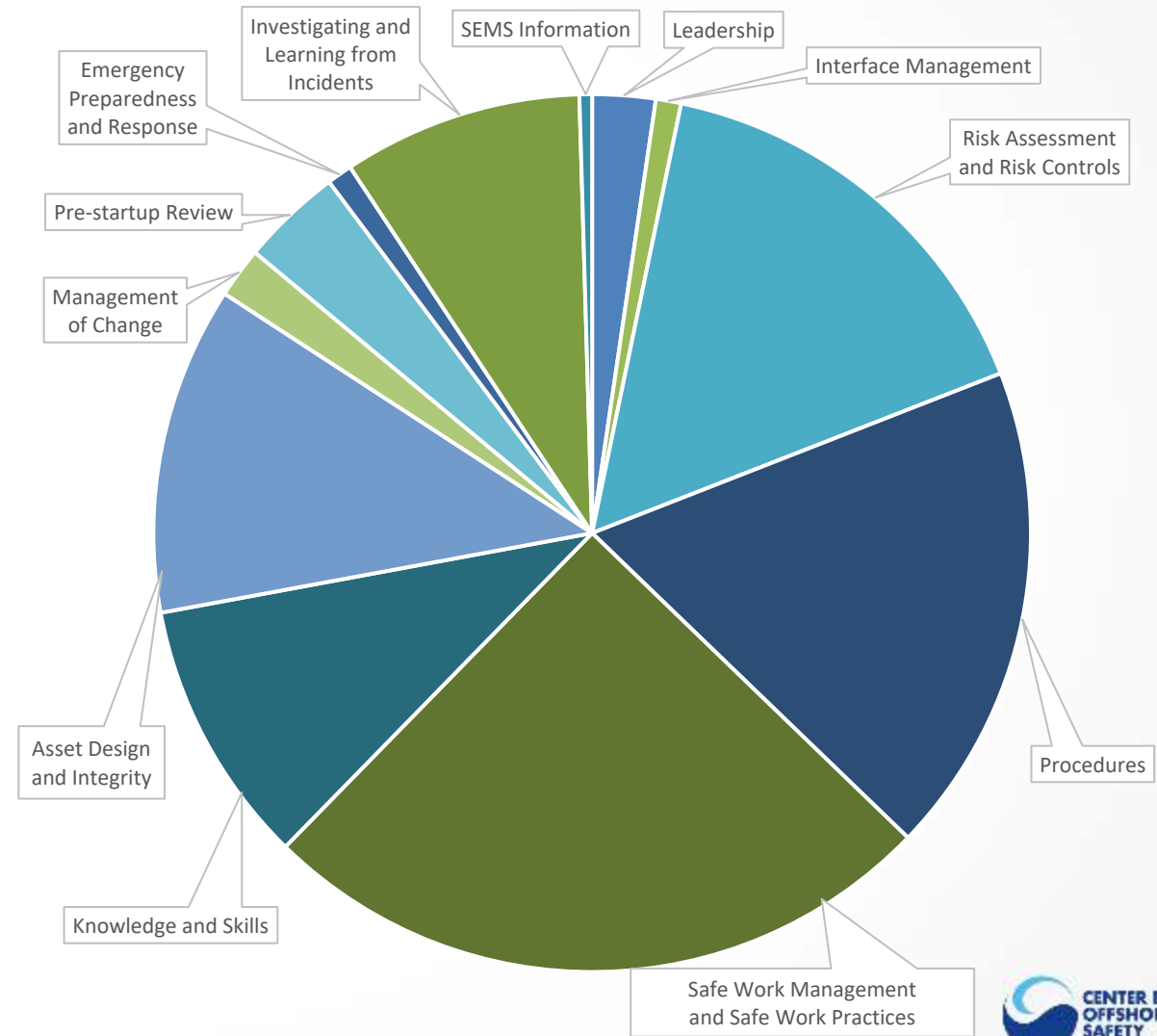
Top 5 AFI 2018-2022	2022	5-yr Avg
Operating Procedures or Safe Work Practices	38.9%	46.3%
Quality of Task Planning & Preparation	16.7%	29.0%
Facility or Equipment Design or Layout	22.2%	25.7%
Quality of Task Execution	9.3%	23.3%
Individual or Group Decision Making	11.1%	22.4%

Areas for Improvement (U.S. OCS only)



NEW – SEMS Elements per LFI & Crane Incident

SEMS Elements	2022	2-yr Avg
Leadership	6.5%	4.4%
Interface Management	3.2%	1.8%
Risk Assessment and Risk Controls	33.9%	29.8%
Procedures	32.3%	34.2%
Safe Work Management & Safe Work Practices	51.6%	47.4%
Knowledge and Skills	14.5%	18.4%
Asset Design and Integrity	25.8%	22.8%
Management of Change	3.2%	3.5%
Pre-Startup Review	6.5%	7.0%
Emergency Response and Preparedness	1.6%	1.8%
Investigating and Learning from Incidents	16.1%	16.7%
Evaluation and Improvement of SEMS	0.0%	0.0%
SEMS Information	0.0%	0.9%



LFI Report – High Value Learning Event

Incident Description: A contract diver was in dive control attempting to mount the DP (dynamic positioning) lights. The employee was attempting to remove a plastic zip tie with an alternative cutting device (Craftsman cutters) and could not get the cutter to engage the zip tie. The employee proceeded to open the cutting device and was trying to pull the blade across and through the zip tie. As the employee was pulling the blade in a downward motion, it contacted the left index finger which resulted in a laceration.

Corrective Actions – At time of incident: All STOP called. Task assignments evaluated and correct tool for the task was identified.

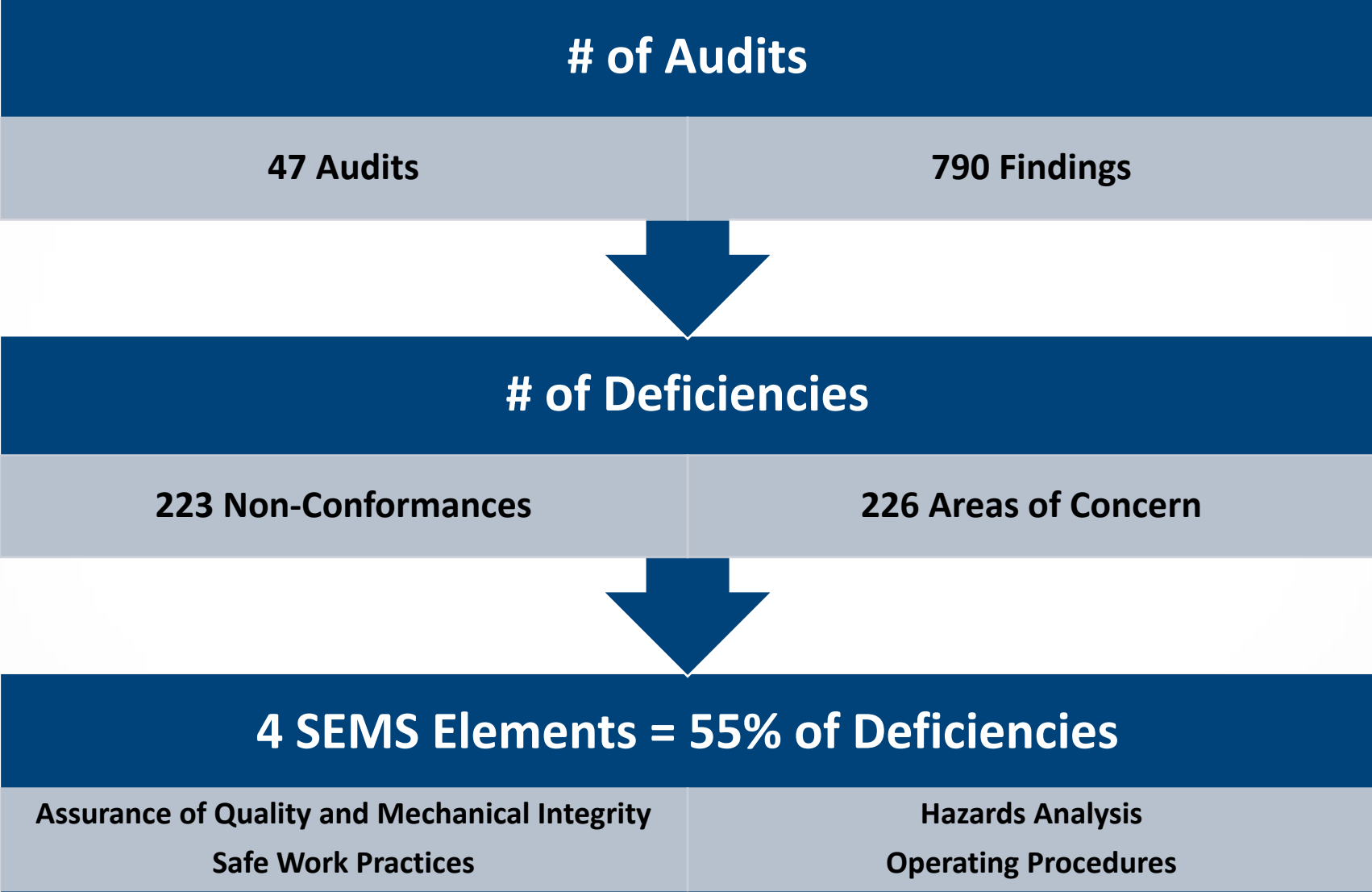
Lessons Learned – Following incident: Implement a new updated contractor onboarding process and orientation. Identify correct tool to be used for task on JSEA.

Additional Findings: Employee was a contract employee and had 20+ years of diving experience. The cutter tool that the employee was using was not used in the way it was designed for use. Employee was not listed on any of the JSEAs for the work taking place. There was not a clear understanding of what level of safety orientation the contract employee received prior to arrival. No gloves were worn at the time of the incident. Supervisor did not assign the employee the task of hanging the lights.

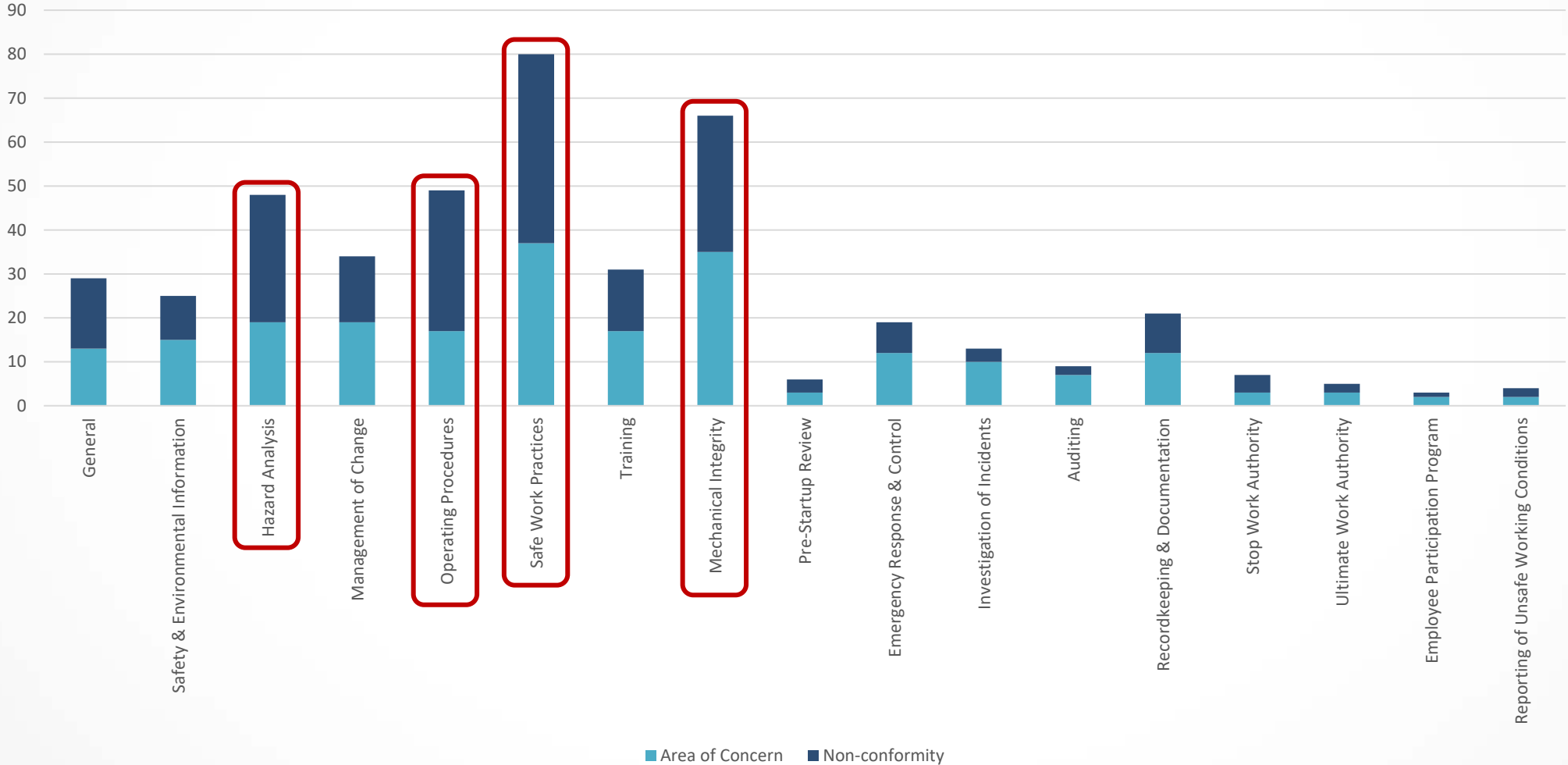


2020-2022 SEMS Audit Data

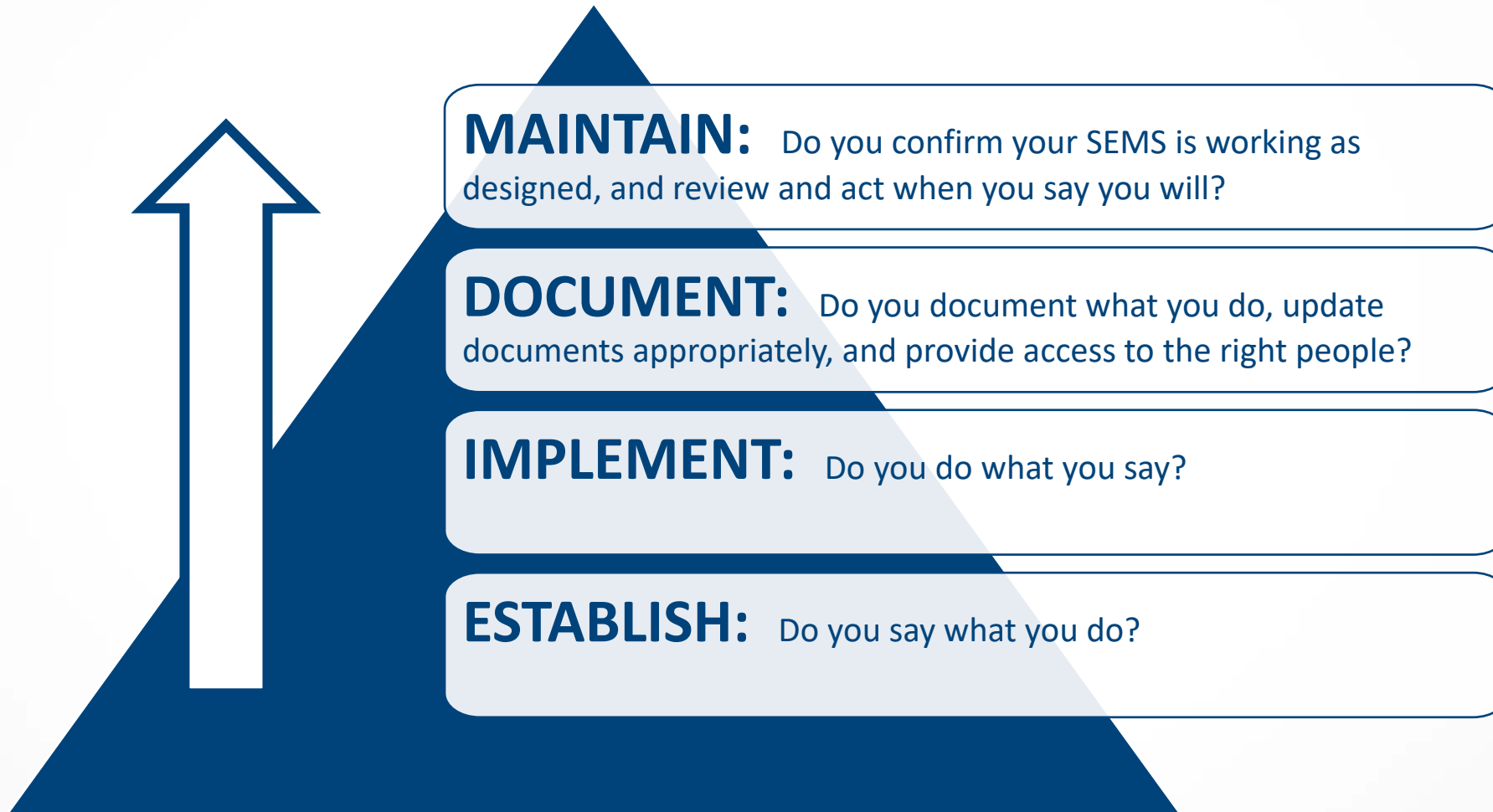
2020-2022 SEMS Audits – By the numbers



2020-2022 Deficiencies per SEMS Element

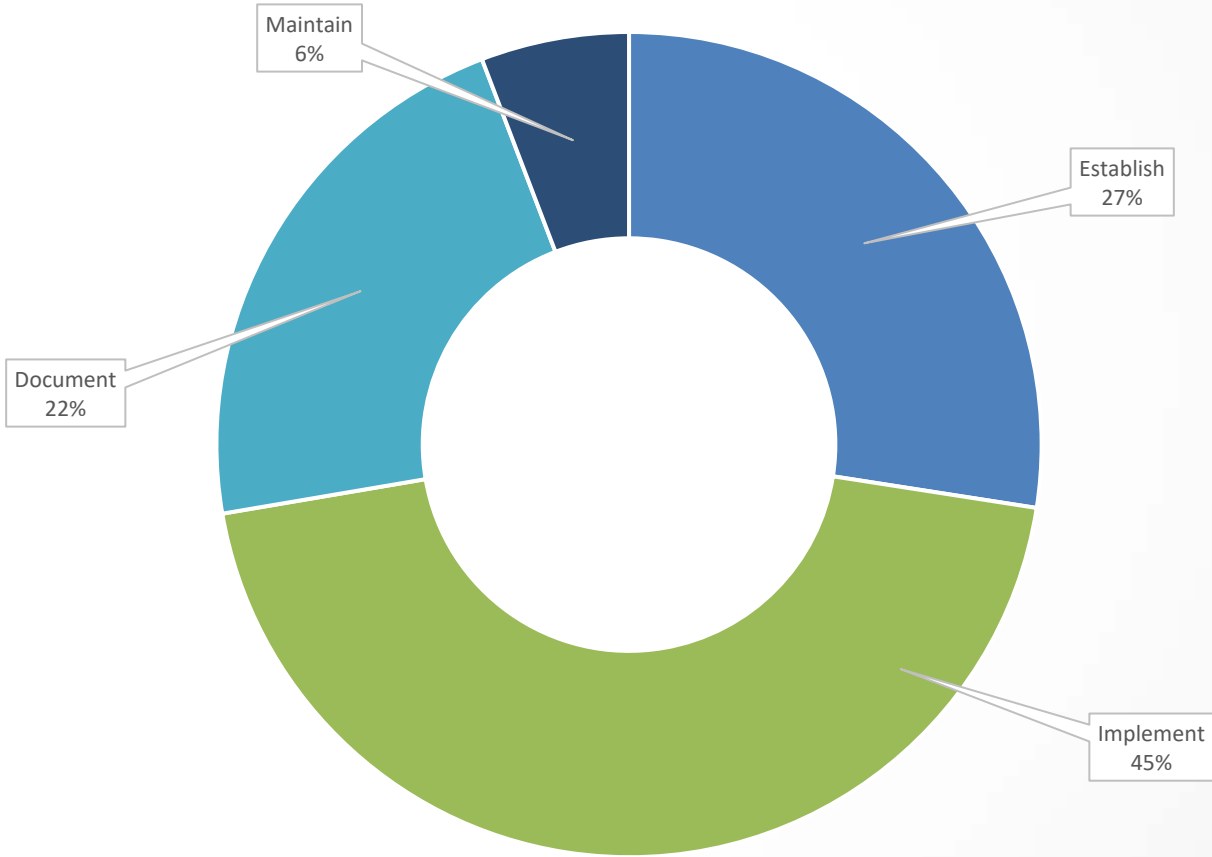


Four Phases of SEMS Maturity



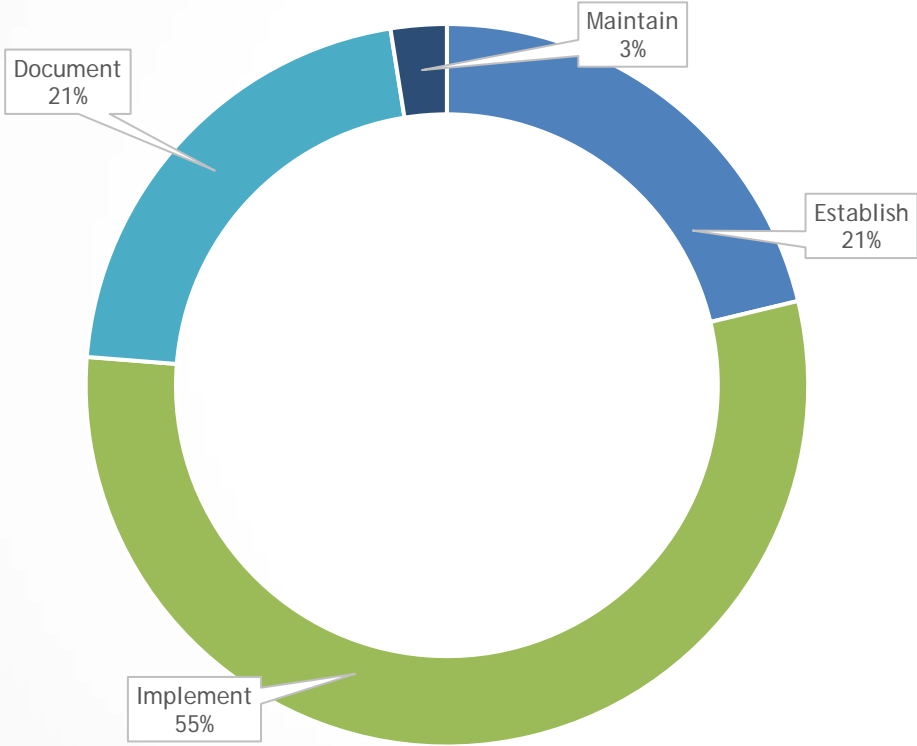
2020-2022 Deficiencies by SEMS Maturity Phase

SEMS Elements API RP 75, 4 th Edition	
General	Emergency Response and Control
Safety and Environmental Information	Investigation of Incidents
Hazards Analysis	Auditing
Management of Change	Recordkeeping and Documentation
Operating Procedures	Stop Work Authority
Safe Work Practices	Ultimate Work Authority
Training	Employee Participation Program
Mechanical Integrity	Reporting of Unsafe Working Conditions
Pre-Startup Review	

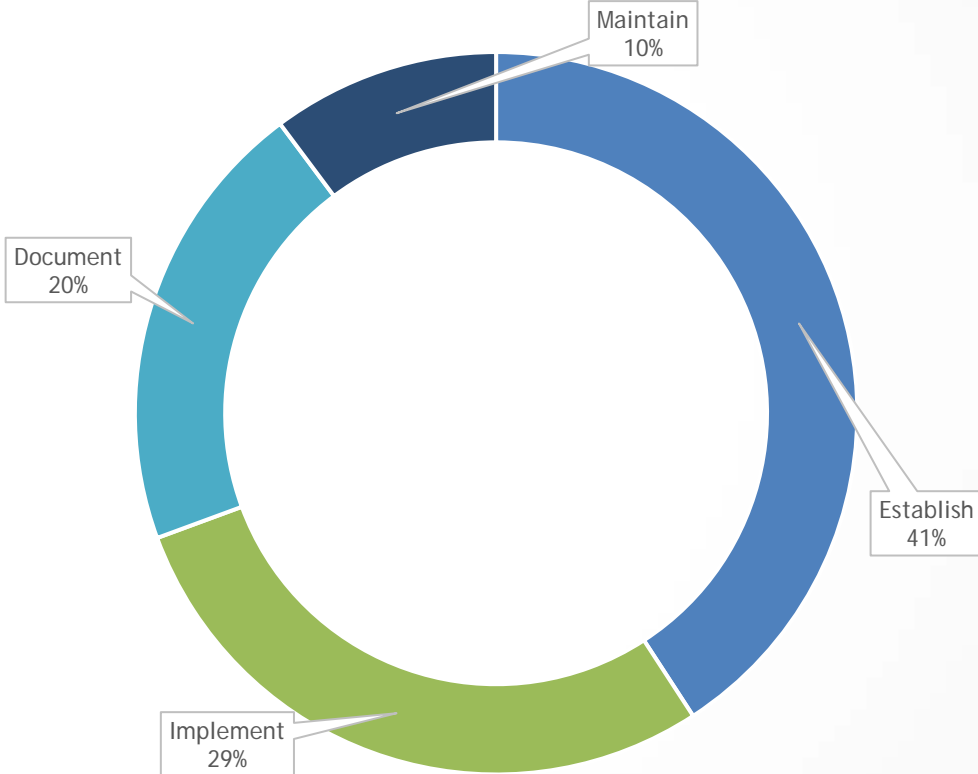


2020-2022 Deficiencies by SEMS Maturity Phase

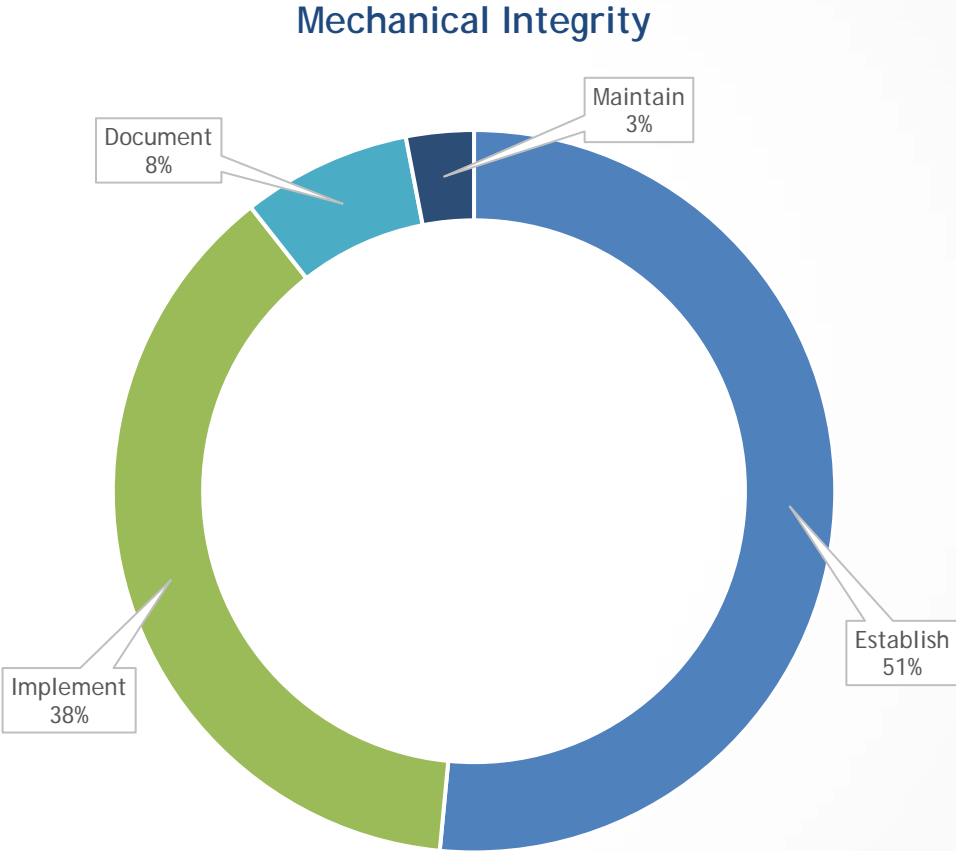
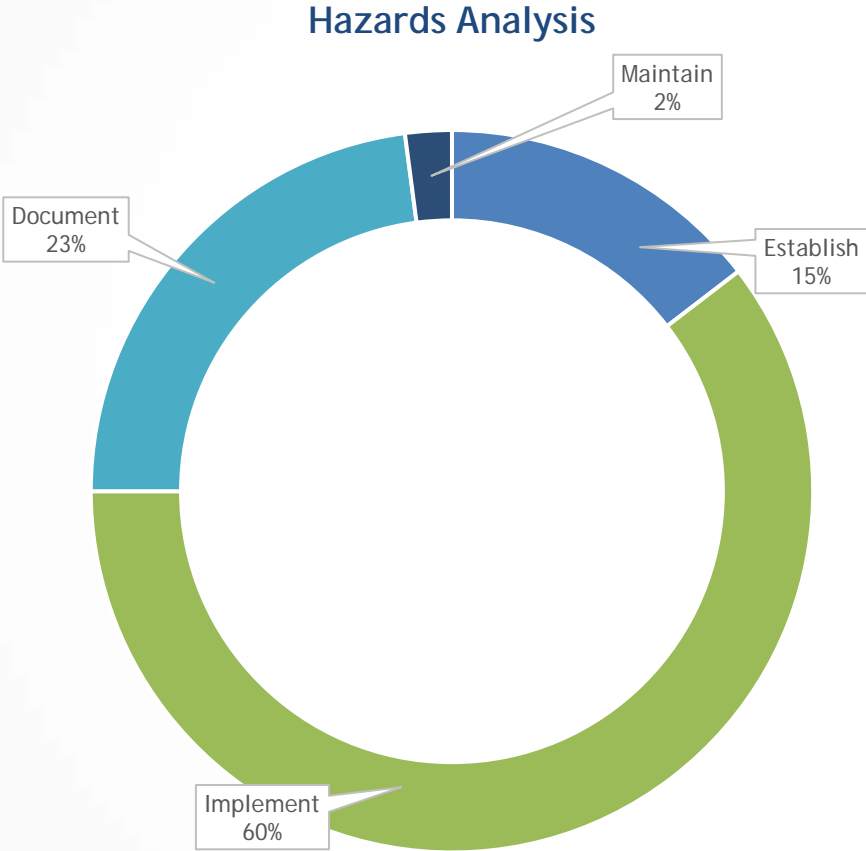
Safe Work Practices



Operating Procedures



2020-2022 Deficiencies by SEMS Maturity Phase



2020-2022 SEMS Audits

Sample Good Practices



A midday pause for safety meeting is held daily to see if any of the projects initiated at tower change have changed and require additional evaluation.

General

Annual audit of facility drawings and P&IDs.



Safety & Environmental Info



A comprehensive safety harness and lanyard pre-use inspection checklist documents the equipment used for each job.

Safe Work Practices

Become a Member!

- Annual Membership Fee
 - API Members - \$0 additional annual fee to join COS
 - Non-API Members - \$5000 annual membership fee
- For Additional Information:
 - Russ Holmes – holmesr@centerforoffshoresafety.org
 - Julia FitzGerald – fitzgeraldj@centerforoffshoresafety.org



Available for download:

www.centerforoffshoresafety.org

The screenshot shows the website's navigation menu. At the top left is the Center for Offshore Safety logo. To its right are three links: 'Find a COS-Accredited ASP', 'Companies with SEMS Certificates', and 'Contact Us'. A search bar is located on the right side of the top navigation. Below these are six main menu items: 'SEMS Audit Providers', 'SEMS Certificates', 'Guidelines & Reports', 'News & Events', 'Membership', and 'About COS'. The 'Guidelines & Reports' item is circled in red. Below this is a dark blue sub-menu bar with four items: 'SEMS Auditing', 'SEMS Good Practices' (with a sub-link 'API Recommended Practice 75'), 'Safety Shares', and 'COS Reports'. The 'COS Reports' item is also circled in red.

Stay Connected – www.centerforoffshoresafety.org



The Center for Offshore Safety (COS) is an industry sponsored group focused exclusively on offshore safety on the U.S. Outer Continental Shelf (OCS). The Center serves the US offshore oil and natural gas industry with the purpose of adopting standards of excellence to ensure continuous improvement in safety and offshore operational integrity.

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Accreditation

[Access the ASP Portal](#)



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Center for Offshore Safety

COS supports companies involved in oil and natural gas industry operations to develop, implement, and improve their SEMS

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Congratulations to **Oxy** for winning the 2023 Safety Leadership Award - Operator, for their work on the Safety Program: "Advancing Heat Safety through Comprehensive Heat Stress Programs." ...see more



2023 Safety Leadership Award
Operators Category
Winner - Oxy

Safety Program:
Advancing Heat Safety through
Comprehensive Heat Stress
Programs



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Congratulations to **Valaris Limited** for winning the 2023 Safety Leadership Award - Contractor, for their work on the Safety Program: "Transforming Offshore New Hire Onboarding with Realistic Training." ...see more



2023 Safety Leadership Award
Contractors Category
Winner - Valaris

Safety Program:
Transforming Offshore New Hire
Onboarding with Realistic Training

Questions?

Thank you!