

IMPROVING TURNAROUND SAFETY

TURNAROUND (TƏRN-Ə- RAUND):
A planned production break to inspect, test, repair, or upgrade equipment in order to **MAINTAIN SAFE, EFFICIENT OPERATION.**

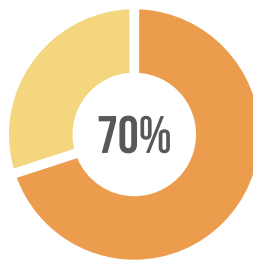


Turnarounds are a big event, not an everyday occurrence. They are **EXPENSIVE, COMPLEX, DISRUPTIVE,** and **POTENTIALLY MORE HAZARDOUS** than regular plant operations.

NOBODY WANTS TO GET HURT



Workers are up to **50x more likely** to have a major accident during startup, shutdown, or maintenance mode.



of major accidents occur during non-routine work.

TOP 3 REASONS TURNAROUNDS MAY INCREASE WORKER INJURIES FROM FALLS



FAST PACE



**UNFAMILIAR AND
EXTENDED WORKFORCE**



**NON-ROUTINE
NATURE**

TURNAROUNDS REQUIRE A SPECIAL KIND OF VIGILANCE BEFORE SHUTDOWN

- Do you know who is responsible for executing the safety program?
- Is there appropriate fall protection equipment?
- Is there a sufficient quantity of fall protection PPE for the entire workforce?
- Has the PPE been tested and repaired before use?
- Has every worker been properly trained on care and use of the PPE?

DURING SHUTDOWN

- Is there open and ongoing communication?
- Are standards being maintained?
- Have new contractors been paired with experienced employee-mentors who have both equipment and plant expertise?
- Do workers understand the importance of reporting all safety incidents and close calls?

Implement safety-related best practices to bring the plant back online swiftly

COMMUNICATE EARLY & OFTEN

- Orientation
- Plant familiarization
- Equipment training
- Expectations and outcomes
- Safety training

INVOLVE ALL PERSONNEL

- Develop an organization chart
- Use a checklist for steps and tasks
- Pair new contractors with plant employees

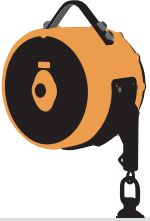
PREPARE & TRAIN

- Inspect gas detectors
- Inspect breathing apparatus
- Inventory fall protection equipment
- Train, train, train PPE users

WE KNOW WHAT'S AT STAKE.

TURNAROUND: PPE ESSENTIALS

FRICITIONLESS
BREAKING



Latchways® Sealed
Self-Retracting Lifeline

RAPID
RESPONSE



ALTAIR® 4XR
Multigas Detector

REKNOWNED
PROTECTION



V-Gard® Hard Hat

HANDS-FREE
ATTACHMENT



Latchways® Vertical
Lifeline Systems

ALL-DAY
COMFORT

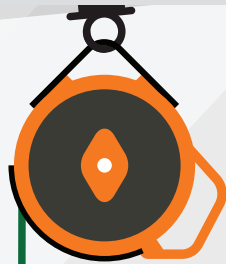


V-FLEX™ Safety Harness

BREATHE
EASY



G1 Industrial SCBA



Do you have the
proper PPE for your
next turnaround?

Find out how MSA can help.

MSAsafety.com/applications/turnarounds.

Statistics source: <http://www.process-improvement-institute.com/consulting-services/pha-of-non-normal-operating-modes/>