

**Safety**

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O/E Learning Presents...

# **The Role of Safety in Operational Excellence**

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# Introduction

- Housekeeping
- Introductions

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# What Is Operational Excellence?



- Gaining competitive advantage through greater efficiency in management and production systems.
- A strategy for improving organizational efficiency to peak levels.
- An active effort for eliminating process waste.
- Lean thinking.
- SQDCM

# What Stops Us from Achieving Operational Excellence?



- Waste
- Low process capability
- Inefficient material flow
- Unreliable equipment
- Poor quality
- Lack of operator autonomy

## The Big Failure Modes



When our process fails it hurts either our:

- Equipment
- Products
- People

# Tools for Achieving Operational Excellence



- Elimination of Waste
- Equipment Reliability
- Process Capability
- Continuous Flow
- Error Proofing
- Stop the Line Quality System
- Standard Work
- Visual Management
- In-Station Process Control

## Elimination of Waste



- Injuries are **waste**.
- The costs associated with worker injury have been driven up as sharply as healthcare costs overall.
- Reduced injuries = reduced costs.

## Equipment Reliability

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- Unreliable equipment leads to worker injuries.
- A good TPM system can not only improve equipment reliability, but also reduce worker injuries.

## Process Capability

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- Injuries directly contribute to downtime.  
Time is lost through:
  - Interruption of production as the worker stops working to respond to his or her injury.
  - Interruption of production as first responders leave their jobs to treat the injured worker.
  - Time lost in investigation.
- Injuries indirectly contribute to downtime.  
Time is lost through:
  - Inexperienced workers replacing the injured worker and working at a slower rate.
  - Turnover and absenteeism.

## Continuous Flow

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- Pull-system approach to production creates a more stable flow of materials that is generally a more ergonomic solution.
- A safer workplace can help reduce operator stress and fatigue.

## Error Proofing

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- Should be implemented to prevent both defects AND injuries.

## Stop the Line Quality (Safety) System



- All workers must be empowered to stop production not only when they see a defect but also when they see a safety issue.
- Andon Systems should be modified to include visual warning lights when a hazard has been identified.

## Standard Work

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- Standard Work Instructions (SWIs) should identify the **safest** way to do a job.
- SWIs are invaluable in incident investigation.

## Visual Management



- Establish safety Quality Operating System (QOS) report card
- Track meaningful safety metrics
- Manage safety using data

## Visual Management (Continued)



Track Meaningful Safety Metrics:

- Leading indicators versus trailing indicators
- Measure things that correlate to a safer workplace

## Visual Management (Continued)



Manage Safety Using Data:

- Use current data
- Link proactive data to reactive data
- Predict and correct future issues
- Use both quantitative and qualitative data

## In-Station Process Control



- Material Safety Data Sheets (MSDS)
- Emergency response information
- Training in all safety aspects of the job
- All workers are empowered to identify and act on abnormal or “near hit” conditions within their work areas that may result in injury
- Structured problem-solving aimed at safety

## Use Safety to Drive Organizational Change

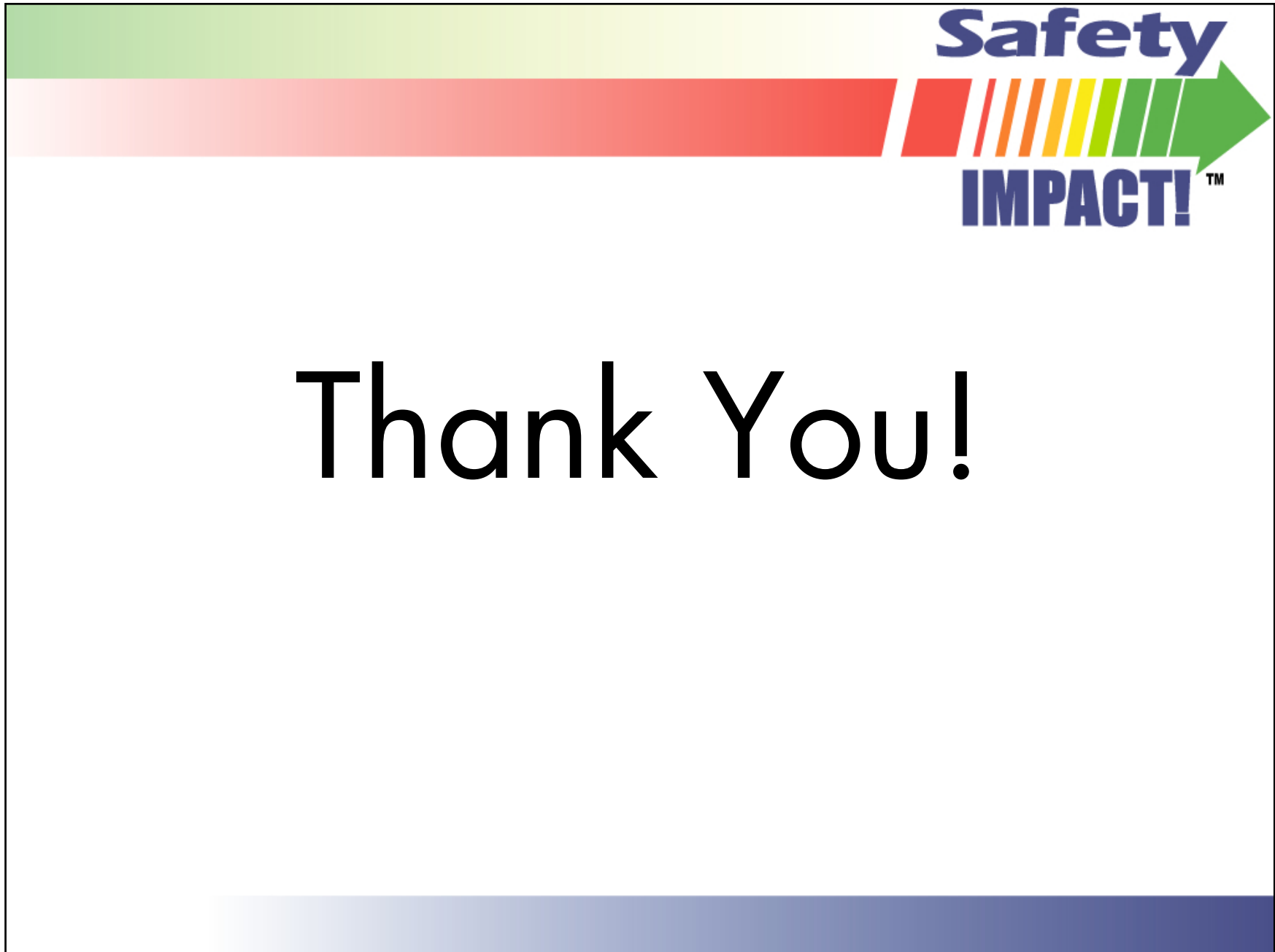


- Safety is difficult to argue against.
- Using a structured approach to safety has spillover benefits to other disciplines.
- Many of the actions taken to make the workplace safer also make it leaner and more productive.

## Conclusion



- Safety, quality, and production are intrinsically linked.
- Safety represents a vast, untapped source for cost reduction.
- [http://www.osha.gov/SLTC/etools/safety/health/mod1\\_estimating\\_costs.html](http://www.osha.gov/SLTC/etools/safety/health/mod1_estimating_costs.html)
- Questions?



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