Pre-Accident Investigations: Better Questions

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High Reliability and Human Performance
Never take a sleeping pill
And a laxative
at the same time.

In any order...
Three Case Studies
“We drifted to a place where we started asking the Wrong questions.”
The Safety Journey So Far...

Compliance
- Behaviors
- Policy/Rules
- Enforcement

Design
- Human Factors
- Process Safety
- Standardized Systems

Fatality
Serious Event
- Not like others
- NO near misses
- Exist in success
- Understand work

Accidents

Time
Leadership’s response to Events MATTERS...
Asking Leaders to be *Better Leaders* is not enough...

We must *develop leadership systems* to support reliable performance
The Role of the Leader is to provide the initial “force” towards understanding systems - first...
Not finding people to blame
A Great **Shift** in Operational Learning

Traditional Ops Learning

- **Find**
- **Blame**

**Fix**

Old

Engaged Learning

- **Learn**
- **Learn**
- **Improve**
- **Soak**
- **Fix**

New

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Redefinition of Operational Success.
An important consequence of the defining safety by operations that go wrong is the lack of importance of operations that go right.

If **nothing** happens – **nothing** is wrong.
Safety is not the absence of Accidents.

Safety is the presence of Capacity.
Workers are as safe as they need to be, without being too safe, in order to be productive.
Until They’re NOT..
The Three Parts of Every Failure

The Context

The Consequence

The Retrospective Understanding

1 → 2 → 3 → 4

Pre-Accident Investigations, Conklin 2013

3 Parts of an Event
Worker’s Don’t Cause Failures.

Worker’s Trigger Latent Conditions That Lie Dormant In Organizations Waiting for This Specific Moment In Time.
We desire seductively unambiguous information about
Shift your thinking from “Why” to “How”
Workers Discover Safety While Working…

The **Gray** Area: Uncertain interpretation of Safe work

Clearly **Safe** to do Work

Clearly **Not Safe** to do Work

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After the Event, Safety is Clear…

Clearly **Safe** to do Work

Clearly **Not Safe** to do Work

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Safety Understood: Drift and Accumulation
Workers Are Masters of the Blue Line...
The Change In How We Must Think About Workers.
The Change in How We Think about Workers

Historical

- Outsiders
  - not responsible
  - not smart
  - should stay in their place
- Uninformed
- Automatons
- Single issue
- Shallow knowledge
- Process Users
- Error-Proofed

New View

- Insiders
  - Very Responsible
  - Very smart
  - Idea generators
- Important Informants
- Creative/Adaptive
- Problem identifiers
- Problem fixers
- Profound process owners
- Fail Often, Safe, and Fast
We must stop seeing workers as problems to be fixed. But, as Solutions to be harnessed.
We don’t design human error out of our work systems...

We design human error in to our work systems.
Systems must be designed for both error and violation.
Fragile: Non-Robust

Stable: Non-Robust

Resilient: Robust
Resilience

We can’t really remove risk from our work...

So, we must build risk competency and failure capacity in our work systems and processes.
Resilience Model

Plan → Absorb → Event (in motion) → Recover → Learn → Adapt
Safety Understood: Defending Resilience
Your Organization must be an operation that is resilient enough to fail and recover...over and over and over and over and over and over and over and over and over and over and over and over and over and...
A Great Shift in Operational Learning

Engaged Learning

Learn

Learn

Improve

Soak

Fix

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Is the juice worth the squeeze?
Leaders...

- Be fixated on non-recoverable, high-consequence failures
- Recognize expertise in the organization and include them in learning
- Make the complex – transparent
- View safety as the presence of safeguards and not the absence of incidents.
The Power of Early ID
The Power of Early ID

Capacity

Identified or Discovered Problem