





New England Kiln Dryers Association

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Associates, Inc.

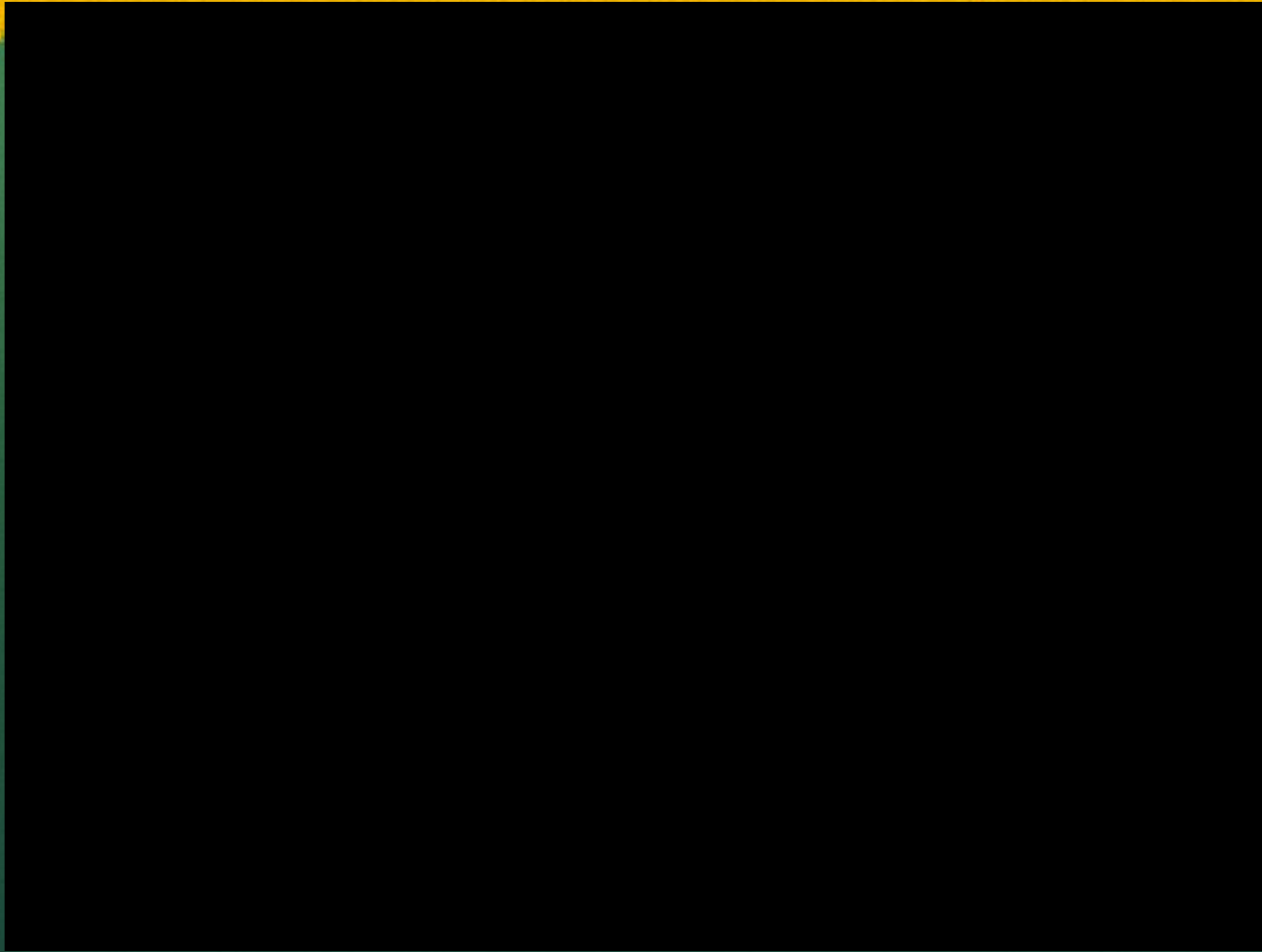
Goals / Objectives

Goal – Find Root Cause(s) to a incident

Objectives:

1. Explain what causal factors are.
2. Define intentional/unintentional errors.
3. Given incidents, determine what type of causal factors are seen.
4. Given Root Cause map, apply causal factors to find root causes.

Root Cause?



Root Cause?



Root Cause?



Lets Back Up

- What needs to happen for an accident to occur?

Human Errors

Equipment Failures

Casual Factors

“The human errors and equipment failures that directly lead to the incident or make the consequences of the incident larger”

Causes of Accidents

Causal Factor #1

- Human Error



What Types of Human Error Do We Have?

- Unintentional

- Intentional

Unintentional Human Error

Committed or Omitted w/ NO prior thought typically think of these as ACCIDENTS

- bumping wrong switch
- misreading a gauge
- spilling coffee on control panel

Intentional Human Errors

We DELIBERATELY Commit or Omit
because we believe that for whatever
reasons

- our actions are correct
- our actions will be better (safer, quicker, etc)
- We think our way is better
- etc

Causes of Accidents

- Causal Factor #2
- Equipment Failures



Root Cause Definition

- The basic causes of events.
- The absence, neglect, or deficiencies of management **systems** that caused the:
 - causal factor events to occur or
 - allowed the causal factor conditions to exist.
- For the typical causal factor, there are multiple root causes.

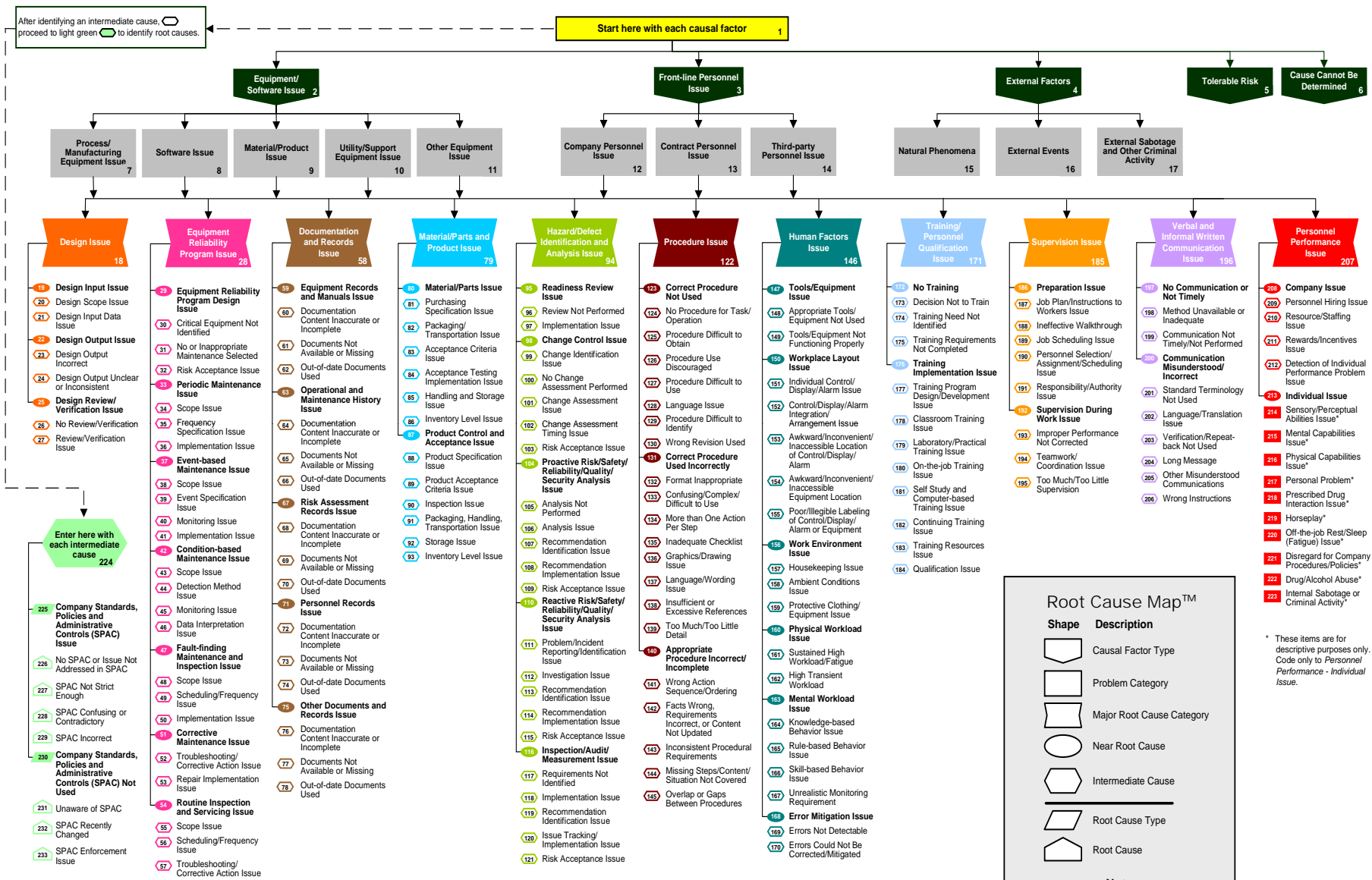
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Causal Factors Identified

- Human Errors – Equipment failures
- Lets put the Root Cause Chart to work!





Root Cause Map™

Shape	Description
	Causal Factor Type
	Problem Category
	Major Root Cause Category
	Near Root Cause
	Intermediate Cause
	Root Cause Type
	Root Cause

Notes

See Appendix E of ABS Consulting's *Root Cause Analysis Handbook* for guidance on using this Map.

Visit our web site for node descriptions.

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* These items are for descriptive purposes only. Code only to Personnel Performance - Individual Issue.

Available Now!
Root Cause Analysis Handbook:
 A Guide to Efficient and Effective Incident Investigation
 by ABS Consulting
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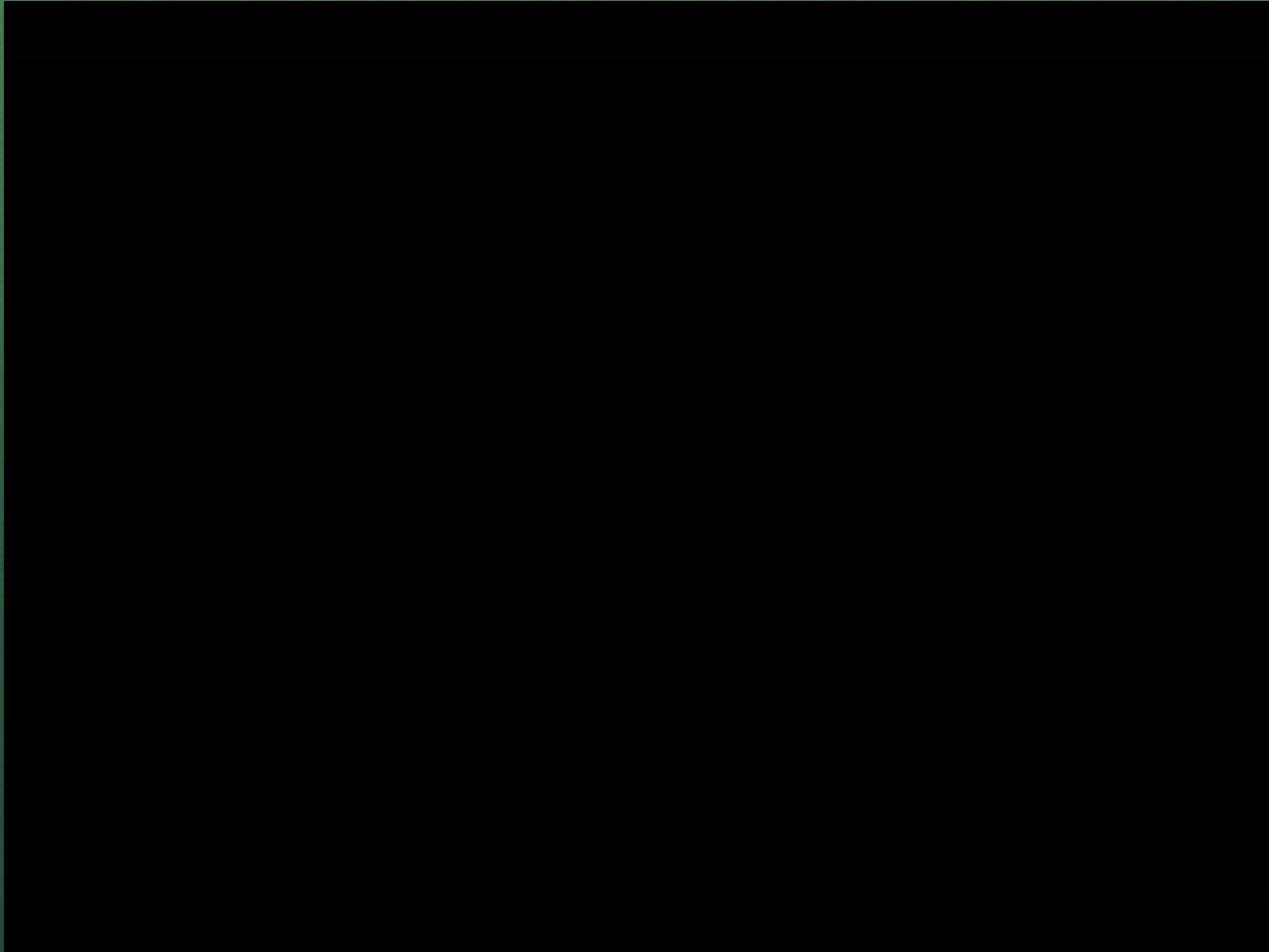
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Lets Look at the *Accident Again*



Another Accident Scenario



Conclusion

- ALL accidents should be investigated
- Causal factors (human errors and/or equipment failures) should be identified
- Root Cause(s) should be identified
- Corrective actions applied

Thank YOU !



W. J. Cox Associates, Inc.