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Risk Management 101: *A Practical Approach* *For Safety Professionals*

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Objectives



- Risk and Risk Management
- Risk Types
- Risk Management Modeling
- Managing Risk Management
- Q&A

What is an Expert?



What's an expert? I read somewhere, that the more a man knows, the more he knows he doesn't know.

So I suppose one definition of an expert would be someone who doesn't admit out loud that he knows enough about a subject to know he doesn't really know how much.

Malcolm Forbes

Risk?



the *possibility* of an event with consequences

Risk & *Consequences*



Descriptors

Innovator

Pessimist

Entrepreneur

Titles

CEO

CFO

Actuary

SPECULATIVE Risk

PURE Risk

Business Risk Factors



Employees Good Hire – Bad Hire

Fleet Crash – No Crash

Vendors Good Hire – Bad Hire

Buildings & Equipment No Fire – Fire

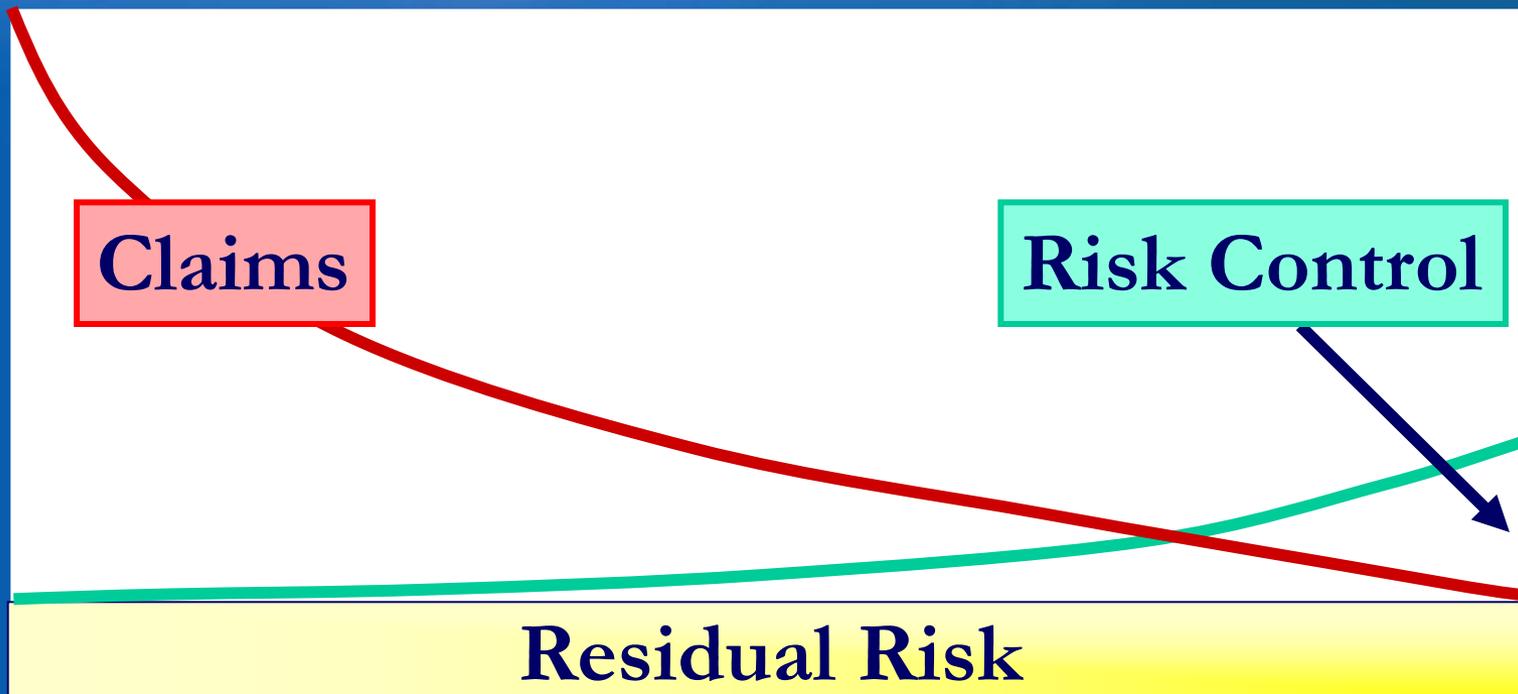
Cyberspace Reboot – Blue Screen of Death

Reputation Good – Not So Good

Raw Materials & Suppliers Good Quality – Bad Quality

Risk Management is solely concerned with *PURE* Risk

The Cost of Risk



Studies show consistent > 4:1 relationship of claims to risk control costs

What Is Risk Management?



A decision process using core management tools in logical sequence to manage risk.

A decision process and a management process

What Is Risk Management?



A decision process us

Management

Plan

Organize

Lead

Control

l sequ

ss and

Risk Management

Identify – Analyze

Develop Controls

Select

Implement

Monitor

What Is Risk Management?



.. a process that includes the four functions of planning, organizing, leading and controlling the organization's activities to minimize the adverse effects of accidental and business losses on that organization at a reasonable cost.

AICPCU-IIA

Visualizing The Risk Management Process



Monitor &
React

Identify & Analyze
Exposures

Select &
Implement
Technique

Examine Alternative
Risk Management
Techniques



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Risk Identification



Identify all possible risks – no regard for probability

Use Trailing and Leading Indicators

Involve as many people as possible. One person can't fully understand every aspect of the project well enough to identify all the risks alone.

Never considered complete. Risks will become apparent later in the process and during operations and should be included!

Risk Assessment Process



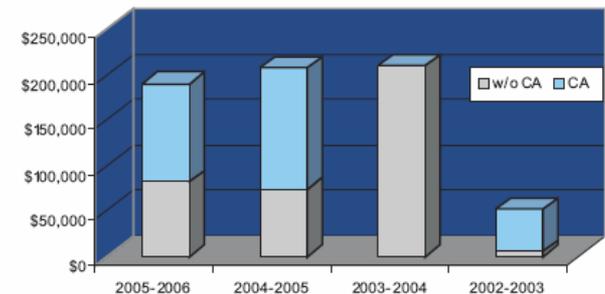
Quantify the Risk

$$\text{Risk} = \text{Probability} \times \text{Impact}$$

2005-2006

Acc Type	Tot Freq	% of Tot Freq	CA Freq	CA % Freq	Tot Sev	% of Tot Sev	CA Sev	CA % Sev
Burn								
Caught	4	10.00%	2	50.00%	\$21,751	4.05%	\$102	0.47%
Rep Motion	9	22.50%	3	33.33%	\$188,000	35.04%	\$130,569	69.45%
Cut								
Eye								
Fall/Elevation	4	10.00%	2	50.00%	\$37,403	6.97%	\$3,318	8.87%
Slip/Trip/Fall	10	25.00%	2	20.00%	\$189,938	35.40%	\$108,137	56.93%
Stress	2	5.00%	2	100.00%	\$19,000	3.54%	\$19,000	100.00%
Struck	3	7.50%	1	33.33%	\$15,402	2.87%	\$14,648	95.10%
Strain	3	7.50%			\$34,593	6.45%		
Unknown	5	12.50%	2	40.00%	\$30,461	5.68%	\$27,197	89.28%
Vehicle								
Totals	40	100.00%	14	35.00%	\$536,548	100.00%	\$302,971	56.47%

Slip/Trip/Fall Injury Severity



Risk Probability



Probability

Descriptor	Scenario	Probability	Score
Very Low	Not Expected to Occur	<1%	1
Low	Small Likelihood	1-20%	2
Medium	Occurs quite often	21-49%	3
High	Common Occurrence	50-85%	4
Very High	Very Frequent	>85%	5

Risk Impact



IMPACT							
Descriptor	Financial	Regulatory	Injury	Environmental	Reputational	Operational	Score
Negligible	0-\$49,999	Not regulated	no injury or illness possible	No Impact, internal or external	negative internal impact, short term	Disrupts single lab operation, but normal functions able to resume quickly	5
Marginal	\$50,000-\$249,999	non-compliance with Standard/Guidelines	first aid	Minor or localized internal impact and internal clean up crew	negative internal impact, long term	Disrupts operation of a floor, but normal functions able to resume quickly; or disrupts operations of a single lab for longer periods	10
Substantial	\$250,000-\$999,999	non-compliance with Internal Policy	minor injury possible	Minor or localized external impact and internal clean up crew	negative external impact, short term	Disrupts operation of a bldg but normal operations resume quickly; disrupts operations of a floor; extensive renovations to a lab	15
Severe	\$1,000,000-\$3,000,000	potential violation of Act / Regulation	critical injury possible	Serious external impact and external cleanup crew, required notification to authorities	negative external impact, long term	Disrupts more than one bldg, not resume quickly; disrupts one bldg for longer period	20
Disastrous	<\$3,000,000	potential violation of external Permits / Certificates / Licences	fatal injury possible	Significant external impact requires external crew & has long lasting impact requiring authority and community notification	significant negative external impact, long term	wide scale disruption of more than one bldg for longer periods, major disruption to a bldg requiring major renovations	25

Risk Prioritization



		Probability				
		VLO	LO	MED	HI	VHI
Impact	Disastrous	5	4	3	2	1
	Severe	5	4	3	2	1
	Substantial	5	4	3	3	1
	Marginal	5	5	4	3	1
	Negligible	5	5	4	3	1

Risk Categories

- 1 Critical
- 2 Severe
- 3 Significant
- 4 Minor
- 5 Possible Concern

Risk Prioritizations

Probability & Impact



1. Hotel guest uses sprinkler head to hang wedding gown.
2. CFO loses laptop in Chicago airport terminal.
3. Ammonia coolant leak in ice cream plant during elementary school tour.

Visualizing The Risk Management Process



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Exposures

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Implement
Technique

Examine Alternative
Risk Management
Techniques

Techniques For Controlling Risk



Avoid

Reduce

Retain

Transfer

Risk Tolerance – The organization's attitude towards risk.

Techniques For Controlling Risk



Safety & Risk Control

Avoid

Prevent

Reduce

Isolate

Duplicate

Transfer via contract

Risk Financing

Retain

Transfer

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Implement the Selected Technique



Measures & Benchmarks developed early

Whichever method you select, have an implementation strategy that informs the stakeholders and affected parties, anticipates roadblocks and is able to be analyzed and modified.

Continuous Improvement

Visualizing The Risk Management Process

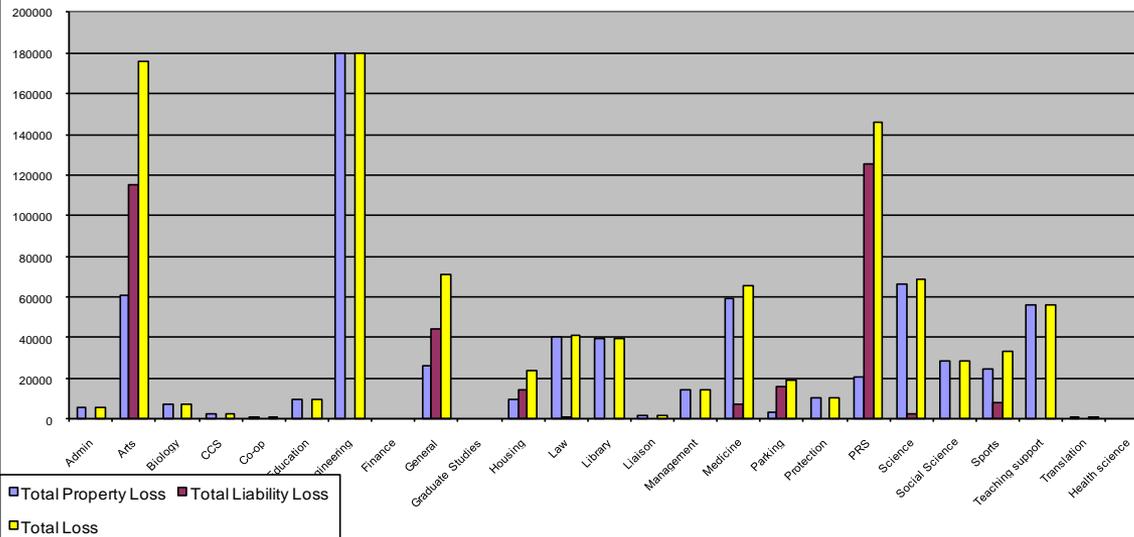


Risk Monitoring

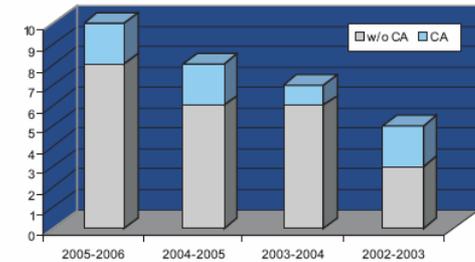


Data analysis Discussions

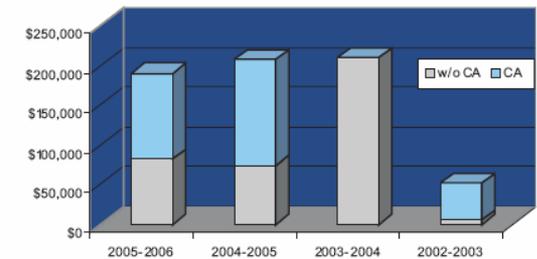
Accident Severity (Property vs Liability)



Slip/Trip/Fall Injury Frequency



Slip/Trip/Fall Injury Severity



Modify – Change as Required



Recommendations:

1. In order to better understand the causes leading to the high frequency and severity in the California locations, a detailed review of the claim management practices, including the use of the medical provider network, early return to work and communications with the injured workers should be conducted.
2. Creation of a standardized formal approach to accident reporting, investigations, claim management and return to work programs should be drafted for use throughout the entire Alta system.
3. An analysis of the root causes of the ergonomic injuries, including a review of the adjustability of equipment and types of instruction given to users.
4. Creation and implementation of a simple new employee orientation to ergonomics in the workplace, which includes instruction for adjusting the workstation to achieve comfort. The program should outline who at each location will be responsible for the orientation, guidelines for periodic review of the program's effectiveness, and a checklist for completion of the orientation and initial adjustment.
5. An analysis of the slip/trip/fall injuries to determine common circumstances and a development of policies and procedures to ensure that hazards leading to these injuries are detected and eliminated in an organized efficient manner.

Visualizing The Risk Management Process

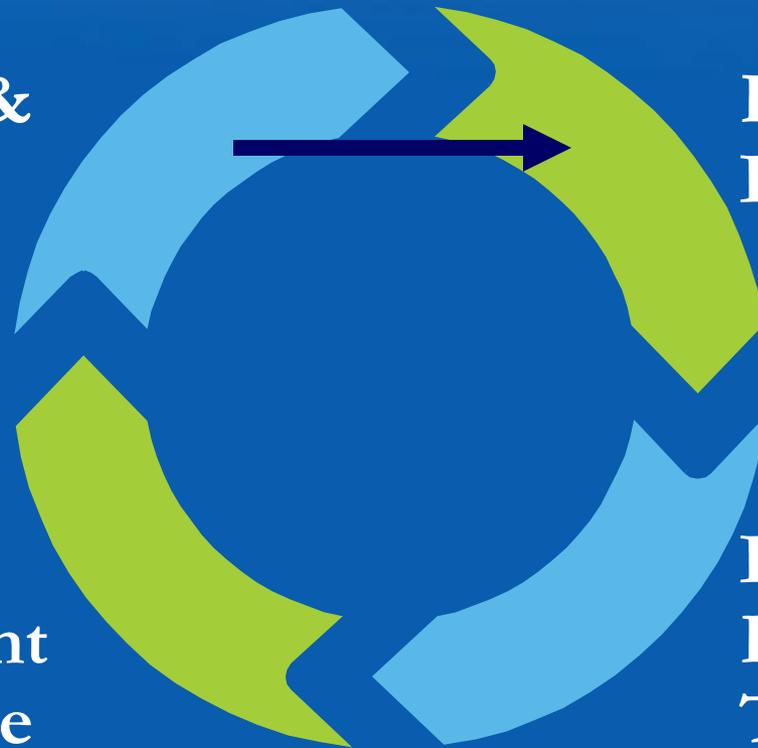


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Feedback Looping



Continuous Improvement

Overall package and individual items

“As a Result....” Statements

Organizational Impacts

Symptomatic Impacts

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Questions



- What are some risks you face and can impact?
- Do you have the time and resources to be proactive?
- How much will your value increase if you apply risk management techniques to your areas?
- Where can you get help after today?
 - Your insurance broker's risk control folks
 - Your insurance carrier's loss control staff
 - Regulatory agency web sites
 - Professional Associations

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