Risk Management 101
A Supervisors Guide to Risk Management

May 2025

Berkshire Hathaway HOMESTATE COMPANIES
Workers Compensation Division

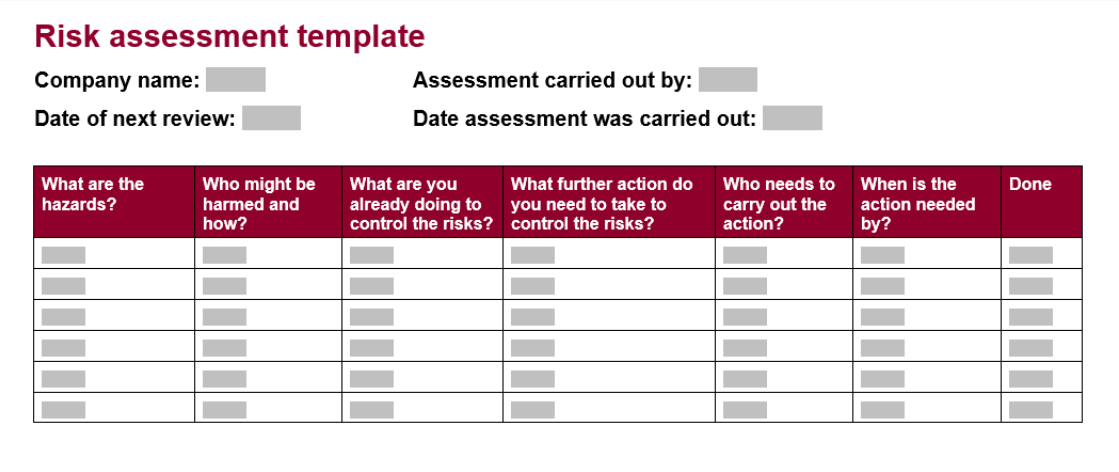
AGENDA

1. What is Risk?
2. Types of Risk
3. Identifying Risks
4. Risk Analysis and Controls
5. Risk Management

"Thoughtfully assessing and addressing enterprise risk and placing a high value on corporate transparency can protect the one thing we cannot afford to lose: trust."

Dale E. Jones

Scenario



Risk assessment template

Company name: **Assessment carried out by:**

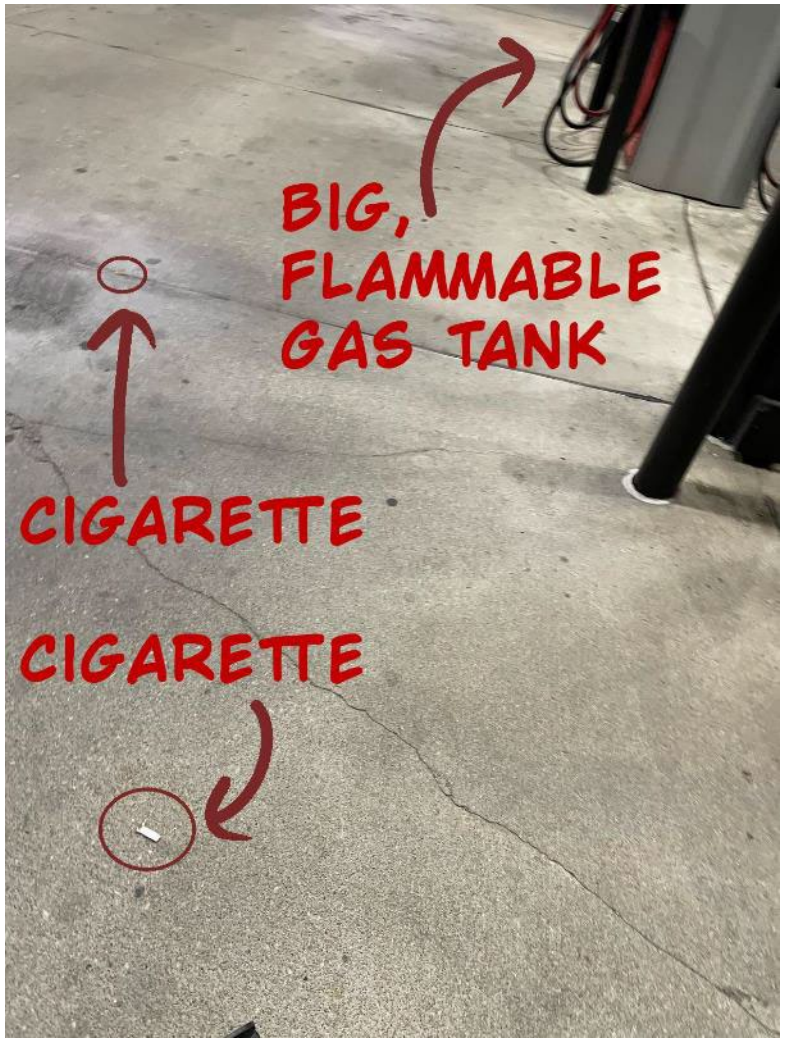
Date of next review: **Date assessment was carried out:**

What are the hazards?	Who might be harmed and how?	What are you already doing to control the risks?	What further action do you need to take to control the risks?	Who needs to carry out the action?	When is the action needed by?	Done

- BP Texas City Refinery explosion
- 15 deaths and over 170 injuries.
- BP's risk assessment failed to identify critical safety issues,
  - Outdated equipment
  - Insufficient safety protocols.

What is Risk?

1. A chance or probability of loss
2. Uncertainty concerning a loss
3. A possibility of a variation of outcomes from a given set of circumstances
4. The difference between expected losses and actual losses



Smoking near combustible storage

From OSHA

Risk Management Dilemma

I'm willing to spend whatever it takes to prevent all accidents

I need to reduce risk in a manner that ensures we meet our organizational goals

What is Risk?

- The possibility of a positive or negative outcome arising from a given
- Pure risk is where the outcome can either be loss or no loss.
  - Threats to property and people
  - Liability for injuries to others
  - Insurance addresses pure risk
  - Example – you are either in an accident on the way to work or you are not in an accident

Berkshire Hathaway HOMESTATE COMPANIES
Workers Compensation Division

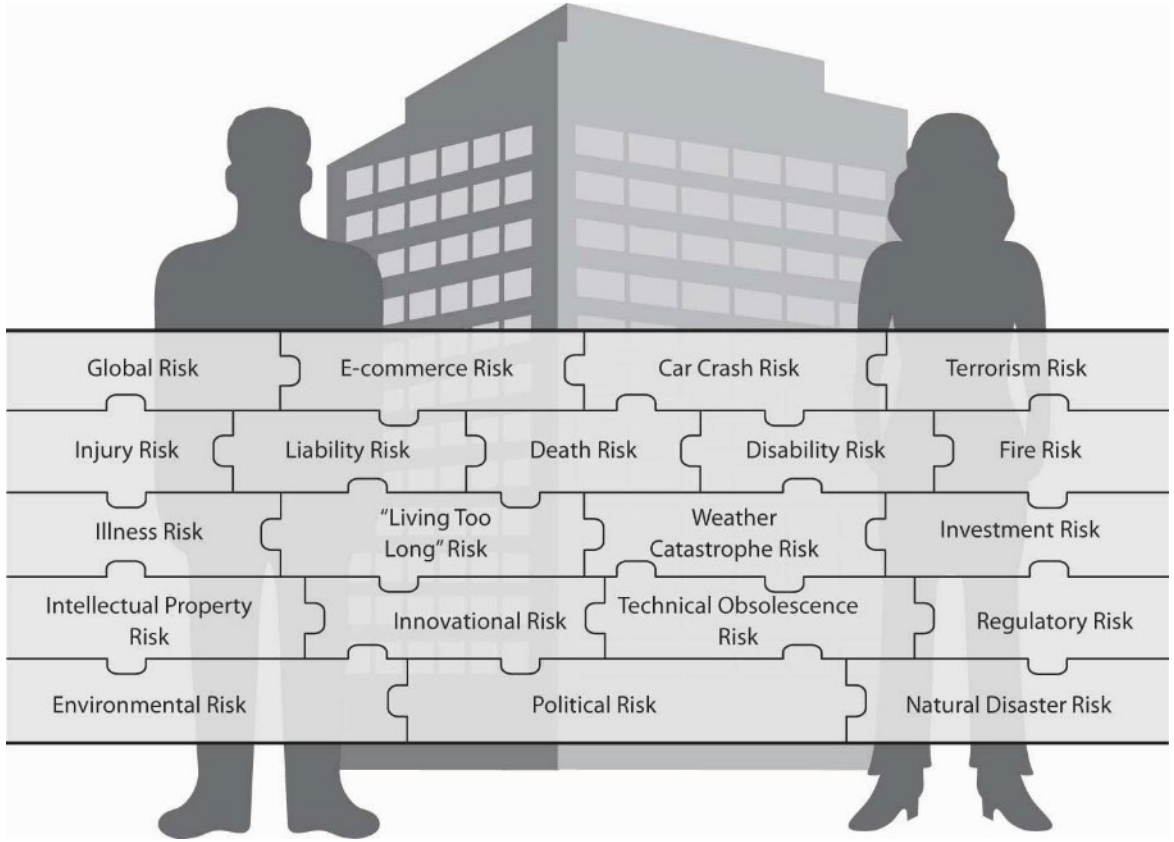
Speculative Risk

- Loss, no loss or a gain.
- Full definition of risk. …a chance of loss, no loss, or gain
  - Launching a new product to draw greater market share

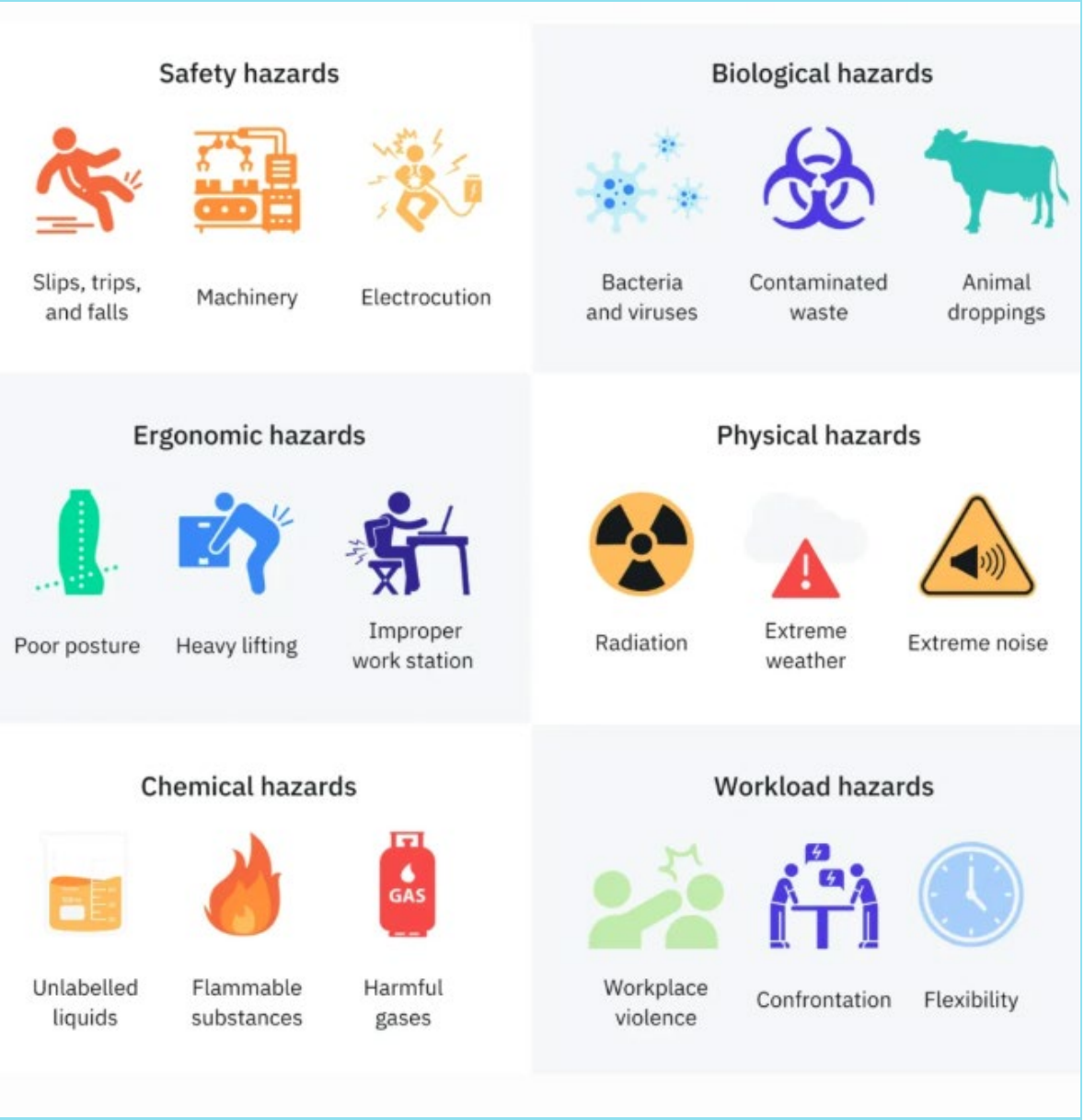
Exposure

- A situation, practice, or condition that may lead to a loss.
- People, Buildings, Activities, resources, and assets are exposures.

Types of Risk



From Risk Management for Enterprises and Individuals – Origami Risk

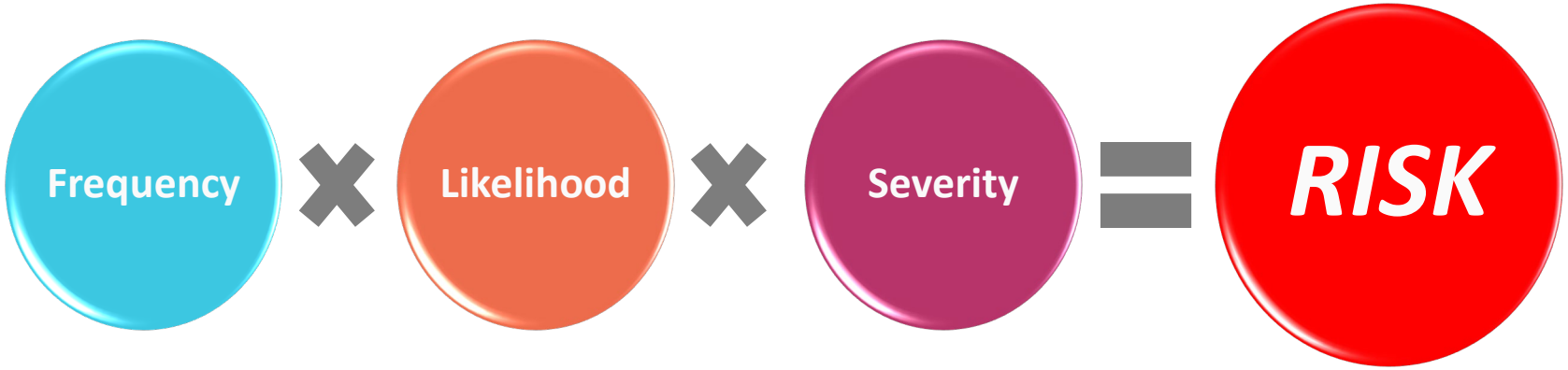


From HSE (UK)

Hazard

- Condition or circumstance that makes a loss from a given peril more likely or more severe.
  - Storing cardboard boxes up against the furnace in a storeroom.
  - Lack of Respirator when working with toxic chemicals
  - Walking on Ice

Occupational Safety & Health Risk



Frequency: number of times exposed to hazard – the number of times you climb a ladder

Likelihood: chance that severity will be realized – the chance that you will fall each time you use a ladder

Severity: consequences of hazard being realized – the injuries and costs associated with a fall off the ladder if it occurs

- Risk can't be eliminated
- Can be identified, quantified and reduced

Individual vs. Organizational Risk

Individual acceptable risk is almost always higher than organizational acceptable risk.

Organizations have far more frequency, as a result must accept less risk or realize the result in severity.

Workers Compensation typically does not disallow payment for an individuals' acceptable risk – we do not follow the *"Volenti no fit injuria"* for WC.*

Where Does Responsibility Fall?

If **person** knows the consequences of a particular act and voluntarily accepts that risk, they are solely responsible for any resulting injury.

If **organization** knows the consequences of a particular act or failure to act and voluntarily accepts that risk, they are responsible for any resulting loss.

Individual vs. Organizational Risk

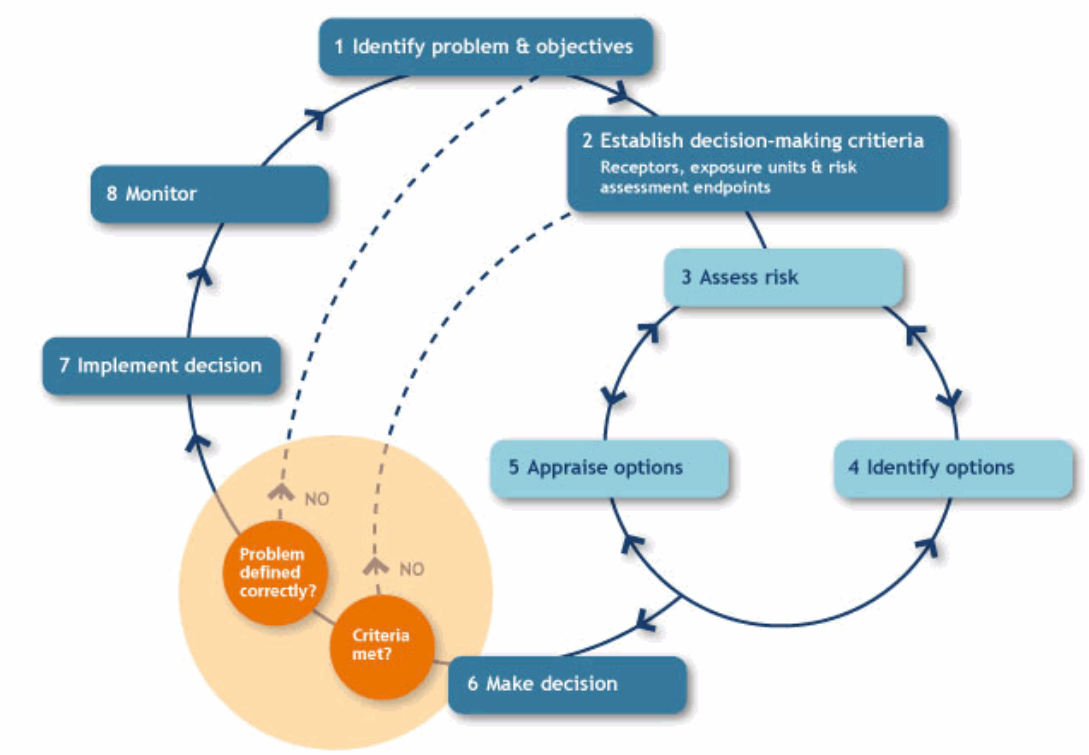
Continued…

Risk of falls when walking high steel without fall protection, 1 fatal fall per 27000 hours worked

Individual Ironworker may not walk 27000 hours of high steel in their whole career – Perception of Risk is Low

Company with 500 Ironworkers walking high steel 10 hours a day will have about 1 fall a week – Perception of Risk is High

Assumed Risk by Default

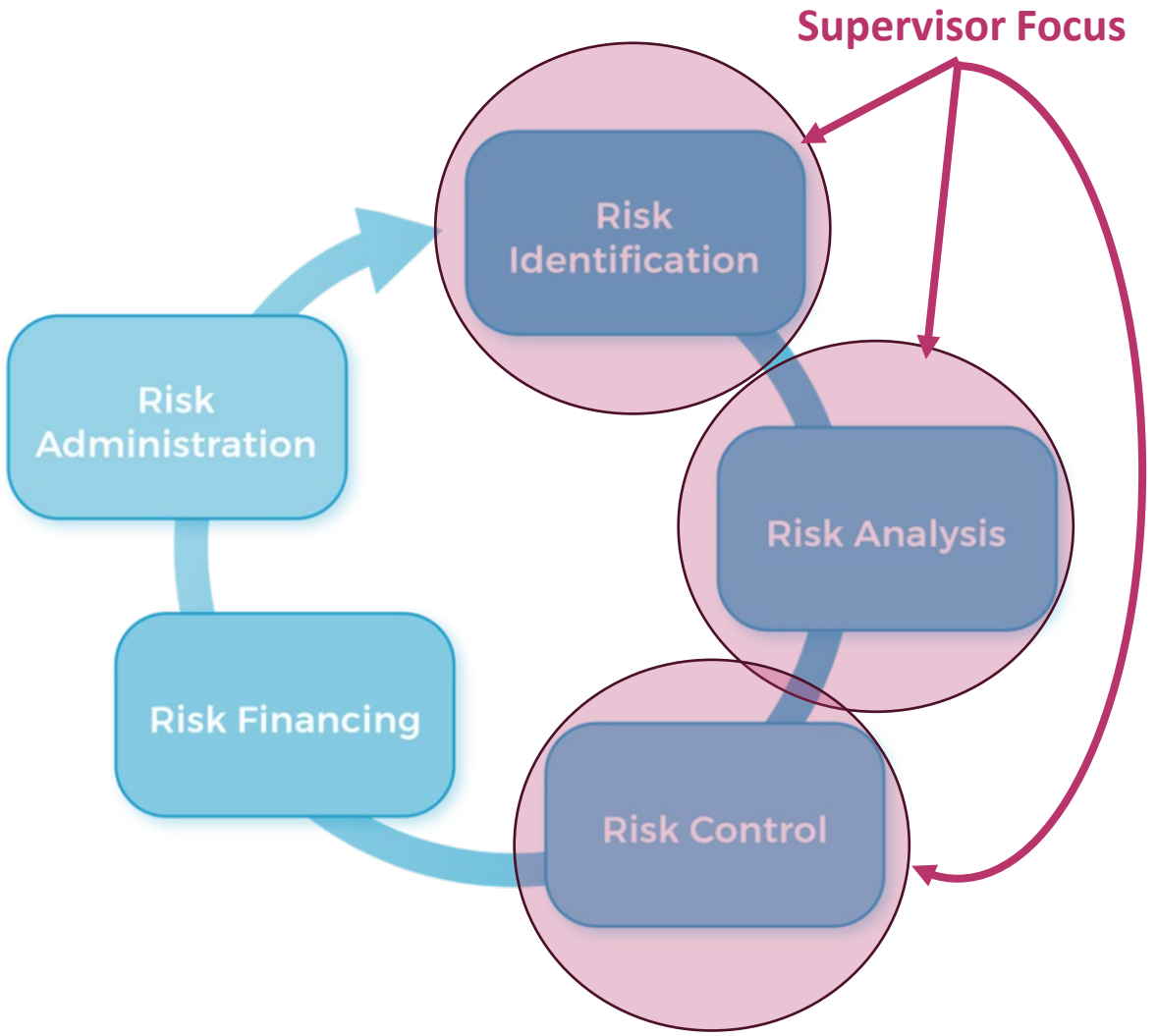


The Risk, uncertainty and decision-making framework was developed in 2003 by the Environment Agency's Centre for Risk and Forecasting and UKCIP, with funding from Defra.

- Assuming risk is a normal and required part of business
- Do not assume risk due to:
  - Being Unaware
  - Making an incorrect assessment
- Assuming risks by default, without consideration can be very dangerous to organizations
- Formal processes should be used to determine acceptable risk

Risk Management for Supervisors

- Risk management
  - Managing and minimizing the uncertainty of Risks
  - Risks can adversely affect your company's assets, financial statements, and objectives.
  - Risk Identification, Risk Analysis and Risk Control often fall on supervisors



Berkshire Hathaway HOMESTATE COMPANIES
Workers Compensation Division

Risk Identification

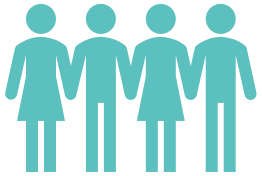
- First and most important step
- Identify and examine a company's exposures, perils, and hazards.
- Use checklists and templates to help ensure completeness and accuracy
- Needs to be done for new or changed operations
- Many Techniques – pick ones that fit your style & ability

Risk Identification Difficulties

- Corporate Culture – silos, turf, fiefdoms
- Corporate Politics
- Hazards/Exposures/Risks are not always obvious
- No Worries – Insurance will Pay
- Fear … laughed at for overreacting…any lifeguards?

The Logistics of Identifying Risks

Who, What, When & How



Who should be involved?

- Supervisor
- Employee
- Manager
- Executive
- Consultant
- Compliance

When should it be done?

- New Op's
- Changed Op's
- Periodically
  - Annually
  - High Risk?
- After Events

How do you do a risk assessment?

- Formal Analysis
- Observation
- Checklists
- Interviews
- Team Discussions

How to Identify Risk

- Cost of Entry for Effective Risk Assessment
- An ongoing process throughout the entire organization
- Applied at every level of the organization
- Focused on an entity-wide view of risk

Example of controls not specific to employee

- Purchasing Controls (don't buy items in heavy packages)
- Production (Automate process)
- HR (Screening of employees)

Supportive of strategic goals and objectives

To Properly Identify Risks

- Identify exposure areas and prioritize list (people, processes, property, liability, net income, etc.)
- Classify identified exposures:
  - Frequency – How OFTEN does the exposure occur?
  - Likelihood – How LIKELY is it that the exposure will be realized (Accident will occur for example)?
  - Severity – What is the MOST LIKELY RESULT if the exposure is realized?
- Use effective methods to identify exposure areas
  - Inspections, checklists, audits
- What keeps you up at night?

What keeps former Secretary of Defense Mattis awake at night?

…”Nothing, I keep other people awake at night!”

James N Mattis

Identifying Risk

- Ask the leaders what are the top 3 exposures that keep them up at night?
- Provide suggestion boxes for staff to identify hazards and exposures anonymously
- Use Accident Investigation information to identify common direct and indirect causes of accidents

Have a Process

Risk Analysis

How often the exposure is encountered is a multiplier of the risk – the more you engage in a high-risk task, the more likely it is that the accident will occur

RISK ANALYSIS

LIKELIHOOD \ CONSEQUENCE	1. INSIGNIFICANT Dealt with by in house first aid	2. MINOR Treated by medical professionals, hospital out patients	3. MODERATE Significant non permanent injury overnight hospital stay	4. MAJOR Extensive permanent injury eg. Loss of fingers, extended hospital stay	5. CATASTROPHIC Death, permanent disabling injury eg. Loss of hand, quadriplegia
A. Almost certain to occur in most circumstances	MEDIUM 8	HIGH 16	HIGH 18	CRITICAL 23	CRITICAL 25
B. Likely to occur frequently	MEDIUM 7	MEDIUM 10	HIGH 17	HIGH 20	CRITICAL 24
C. Possibly and likely to occur at sometime	LOW 3	MEDIUM 9	MEDIUM 12	HIGH 19	HIGH 22
D. Unlikely to occur but could happen	LOW 2	LOW 5	MEDIUM 11	MEDIUM 14	HIGH 21
E. May occur but only in rare circumstances	LOW 1	LOW 4	LOW 6	MEDIUM 13	MEDIUM 15

From OSHA

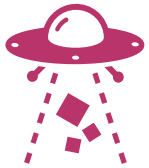
Relies on data about the hazards & exposures identified in Step 1.

- Assess the potential impact of those hazards on the organization
  - Who is most at risk
  - When are they most at risk
  - What are the likely and worst-case results of the risk being realized
- QUANTIFY the risk exposure
- Prioritize risk issues that need correction

Quantitative vs Qualitative Analysis

Quantitative Analysis

Uses numerical data and statistical methods to precisely measure and evaluate risk levels.



Data Collection: Involves empirical methods such as sampling and direct measurements (e.g., air sampling, noise level meters)

Statistical Analysis: Uses statistical techniques to analyze numerical data and determine risk levels.

Precision: Provides precise, numerical estimates of exposure and risk

Compliance: Compares measured exposures to established limits to ensure compliance

Qualitative Analysis

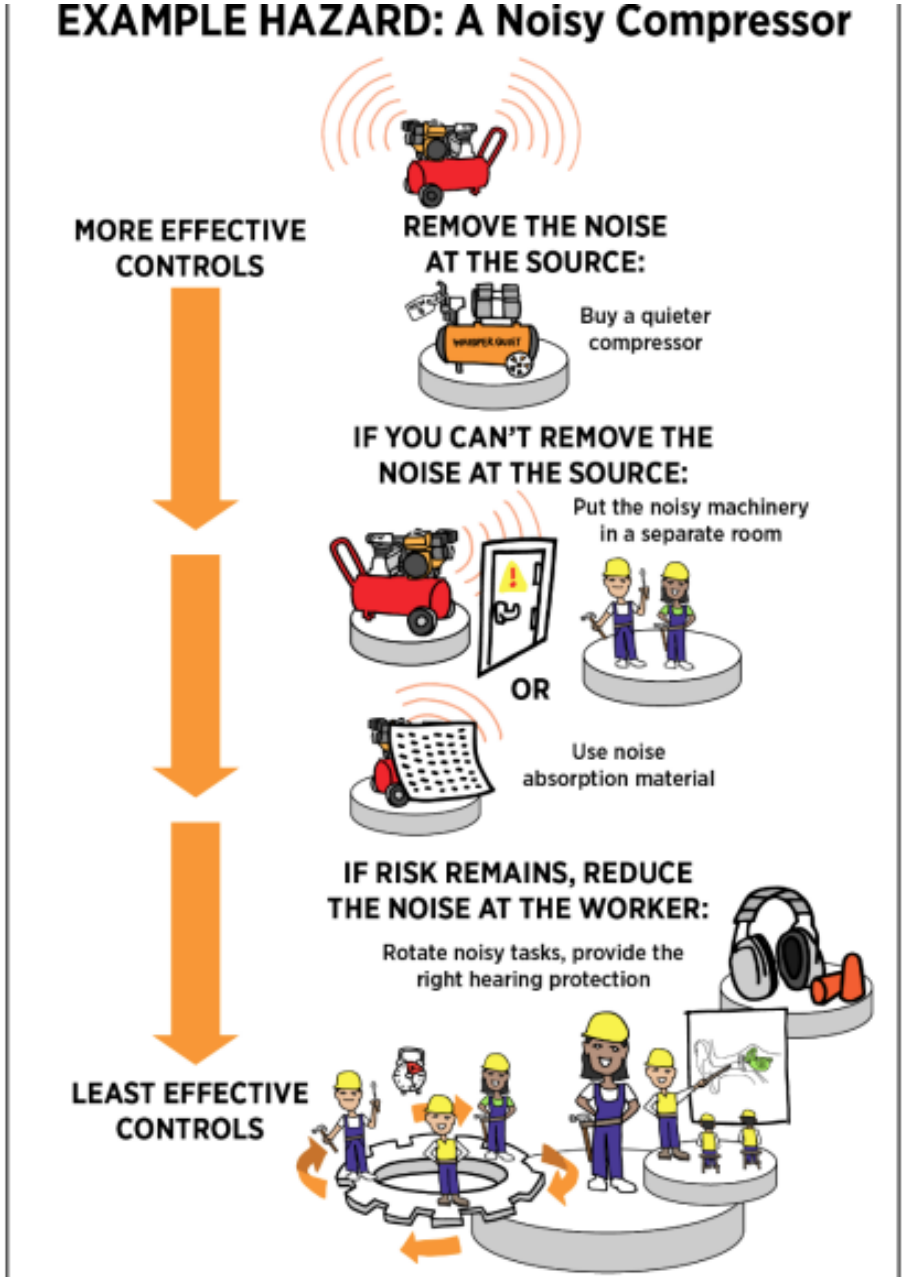
Relies on observations and subjective judgment to categorize and prioritize risks based on various factors.

Observational Methods: Relies on observations, interviews, and reviews of safety data sheets and work practices

Risk Categorization: Categorizes risks based on factors like severity, frequency, and duration of exposure

Subjectivity: Involves subjective judgment to estimate risk levels and prioritize hazards

Broad Scope: Reviews all potential exposures and triages them to identify significant hazards

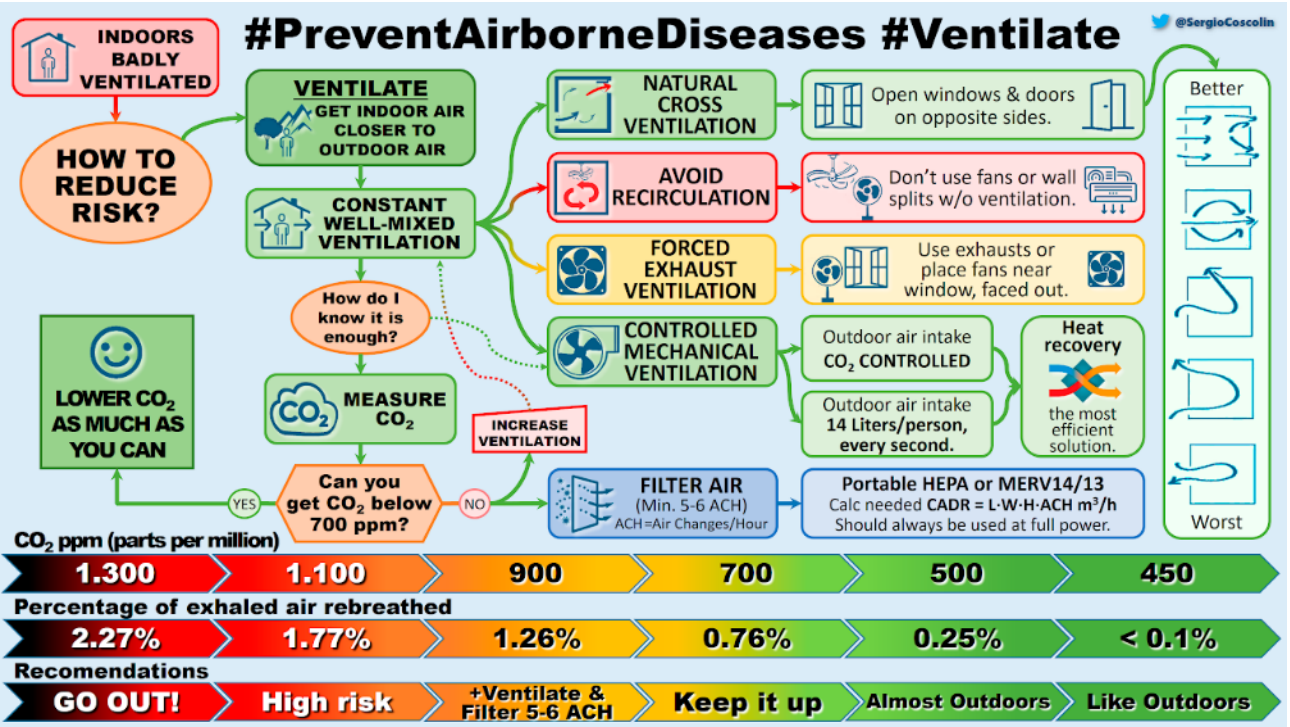


From OSHA

Any conscious action or inaction to minimize, at the optimal cost, the probability, frequency, severity, or unpredictability of loss

- Regular Safety Inspections & Observations: Conduct routine inspections & observations to identify and mitigate potential hazards before they cause injuries
- Implement solutions to reduce major loss sources and prevent employee accidents and injuries.
- Promote safety and health programs to improve overall employee safety and reduce injury risk
- Provide ongoing safety training and conduct emergency drills to ensure employees are prepared for potential hazards

Successful Risk Control

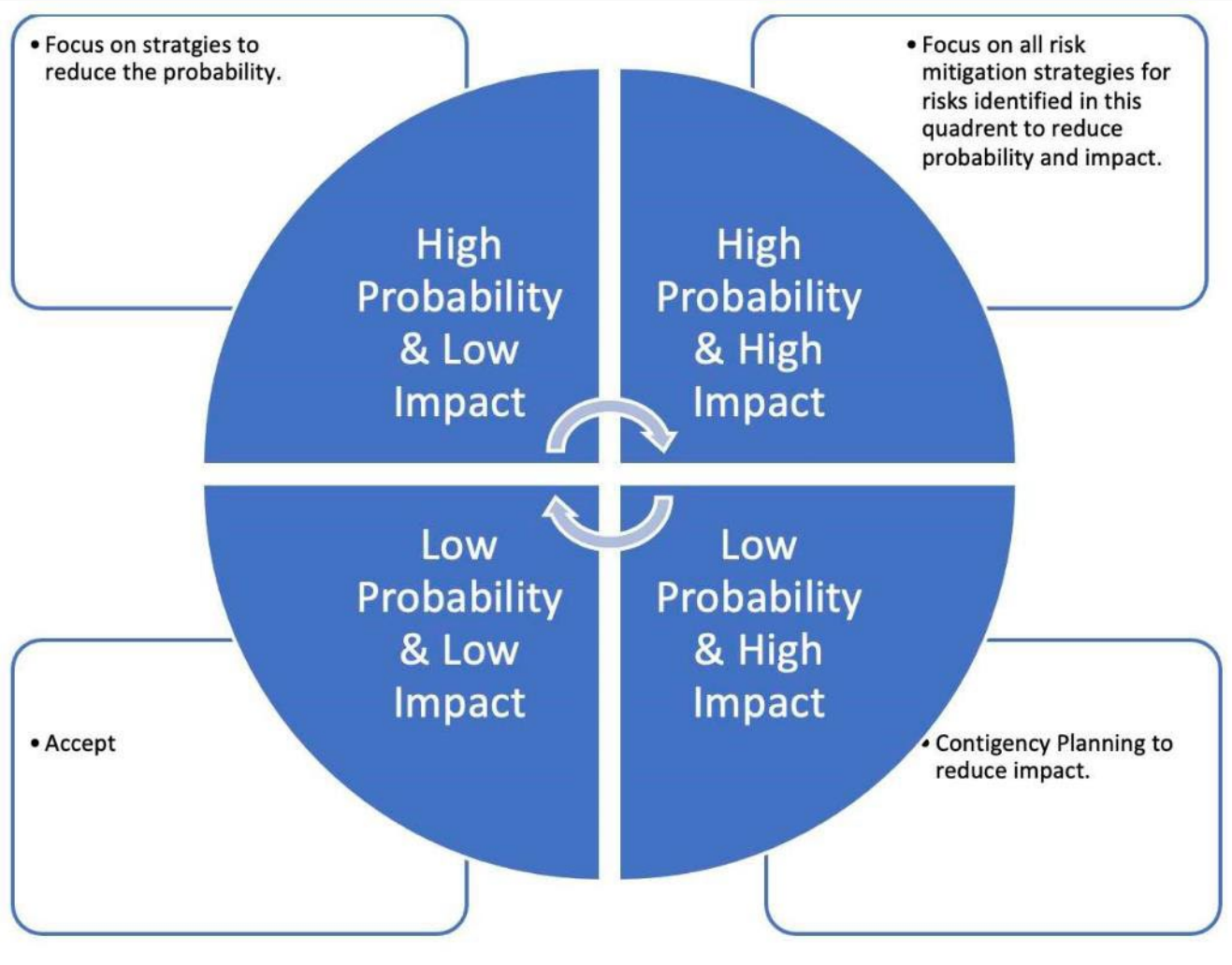


From Australia Health Department

- Careful risk identification
- Detailed risk analysis.
- Strong Administration of a risk control program
  - Prioritization
  - Implementation
  - Coordination
  - Follow-up
  - Communication throughout the organization.

Why Focus on Risk Control?

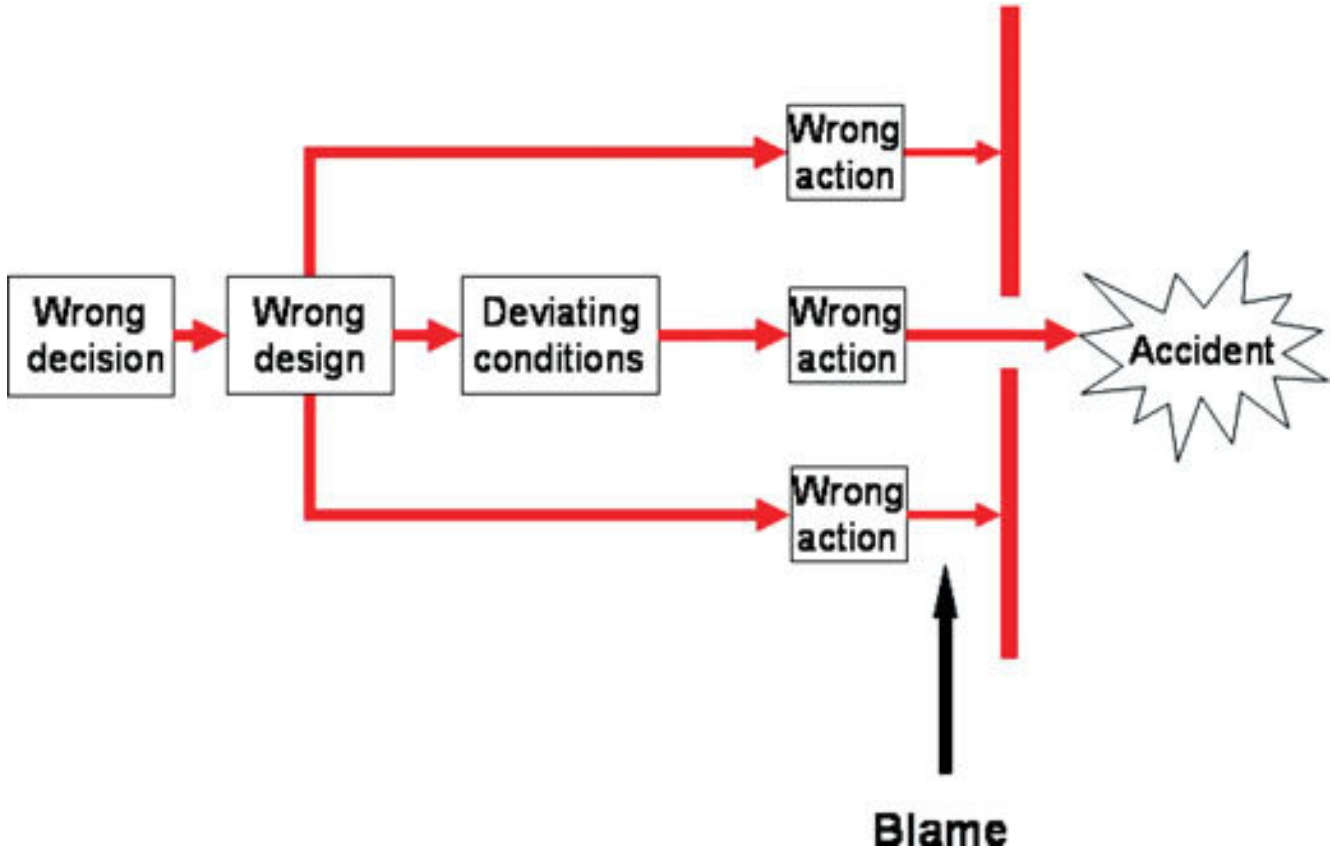
- To reduce costs:
  - Insurance, TCOR
  - Usually, prevention costs less than a loss.
- For compliance – it's the law!
- For care and concern – employees, the public, etc.
- To protect brand and reputation!



Root Causes of Accidents and Injuries

- Most unsafe behaviors and conditions are observed one or more times before an accident occurs.
- Behaviors and conditions left unchanged will eventually result in accident or injury.
- Root cause analysis lays the foundation for preventing future accidents and injuries.

The Root Causes of Accidents and Injuries



The root cause of accidents must be determined to effectively apply risk control techniques.

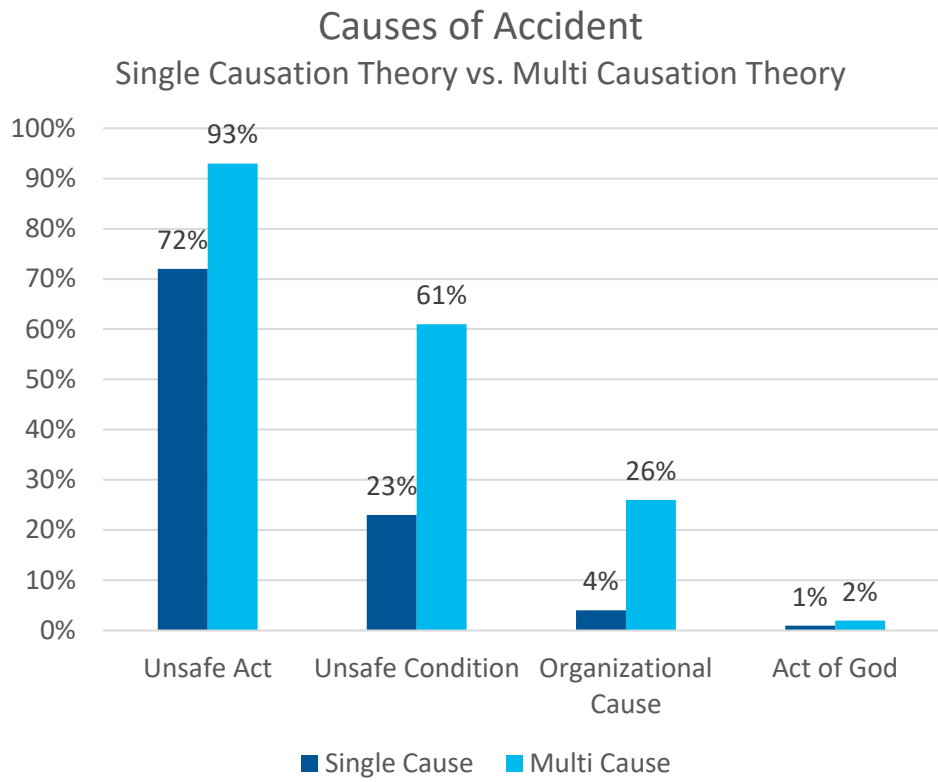
- Unsafe Acts or Behaviors
- Unsafe Conditions
- Organizational Causes
- Acts of God

Root Causes of Accidents and Injuries

Results of a 10-year DuPont Study (STOP*)

Unsafe Acts Associated with:

Personal protective equipment	12%
Positions of People	30%
Reactions of People (Actions of People)	14%
Tools and Equipment	28%
Procedures and Orderliness	12%
Total Caused by Unsafe Acts/Conditions	96%
Total Injuries with Other Causes	4%
	100%



**Safety Training Observation Program*

Berkshire Hathaway HOMESTATE COMPANIES
Workers Compensation Division

Why are there Unsafe Acts?

- Common Sense for Living Things:

  What can I do to save energy?

- An employee attempts to change a light bulb while using a swivel chair instead of a ladder.
- Employees on a construction site object to wearing hard hats – they feel heavy and cause fatigue

- Unsafe work may be faster, more convenient, or more comfortable.
- Unsafe behavior rarely results in injury on any single occasion.
- People may take risks when rewards are quick and certain and risk of accident is low.
- You observe people working to identify unsafe behaviors.

Why are there Unsafe Conditions?

"Another flaw in human character is that everyone wants to build, and nobody wants to do maintenance" Kurt Vonnegut

- All systems move towards disrepair
- Vibration and movement cause damage over time
- Example – a dead man switch becomes inoperable due to vibration from the machine

- Some unsafe conditions are simply inherent to the nature of specific operations.
- Many unsafe conditions exist because management allows them to exist.
- You inspect to find unsafe conditions – identify area, items, item parts and conditions to be inspected for PRIOR to doing the inspection

Why are there Organizational Causes?

"An accident is a symptom of Management Failure"

Dan Peterson

- Management makes decisions about staff, equipment and processes
- Decisions can increase risk
- Example – management decides to decrease cost of raw materials by moving from 30# bags to 60# bags

- Safety and risk management must be purposefully incorporated into management decision making
- Management must understand the risk before making decisions about the risk
- You audit to find organizational issues – not following procedures, poor purchasing decisions, etc.

Why are there Acts of God (uncontrollable events)?

"Look it was an accident. 5000 accidents happen every day – bizarre, tragic, farcical… they are almost acts of god fit only to amaze the survivors and irritate the insurance companies"

Peter Greenway

- Uncontrollable events can happen
- Tornado, Hurricane, COVID, and others

- Uncontrollable events are usually thought of as catastrophic natural events like tornados, earthquakes or hurricanes.
- Often companies are restricted to responding to event and trying to reduce damage
- Management should include acts of god on your risk assessment

Lack of Training & Awareness

Failure to identify exposure and hazards associated with it

Safety training is not a priority and often gets pushed off or missed

Standard training does not cover company specific procedures and processes

Focus is on the hazard not on Risk and the responsibilities for risk identification, analysis, control and follow up

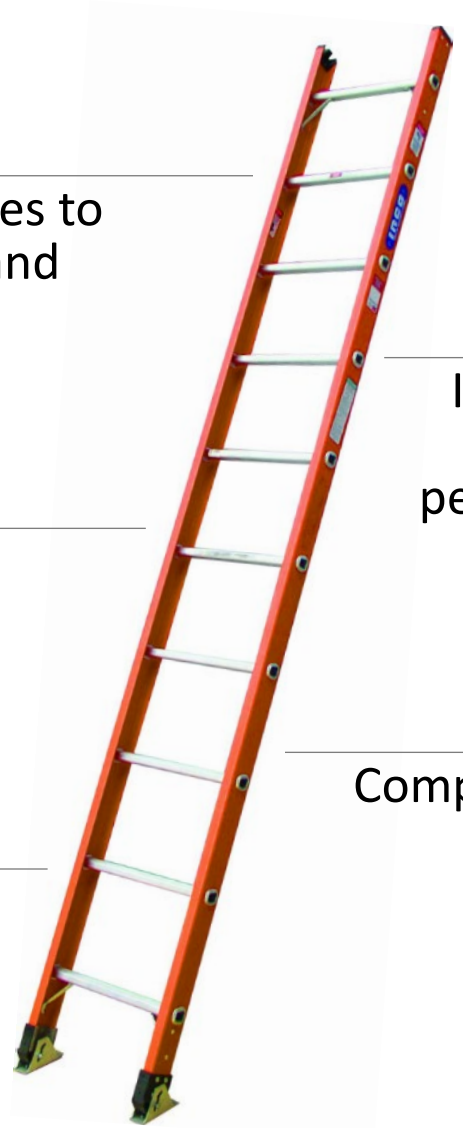
Control	Examples
Elimination	*Redesign job to remove hazardous activity*
Substitution	*Substituting a less hazardous substance/process*
Engineering Control	*Device or equipment that will lessen the chance of an accident*
Administrative Control	*Rules or activities that management undertakes*
Personal Protective Equipment	*Providing gloves, mask and glasses to prevent exposure to blood and OPIM*
Training	*Provide training and education on how to do the job safely*

Choosing the Controls to Protect *Humpty Dumpty*

- Best practice/compliance/informal
- Higher up the ladder the better
- Include control items such as:
- Compliance (OSHA programs and related procedures)
- Behavioral safety and safety culture
- Engineering
- Administrative
- PPE & training
- Organizational

“Best in Class” Control Hierarchy

Falls from Elevation



Elimination of fall exposures

Substitution of processes to reduce the frequency and likelihood of falls

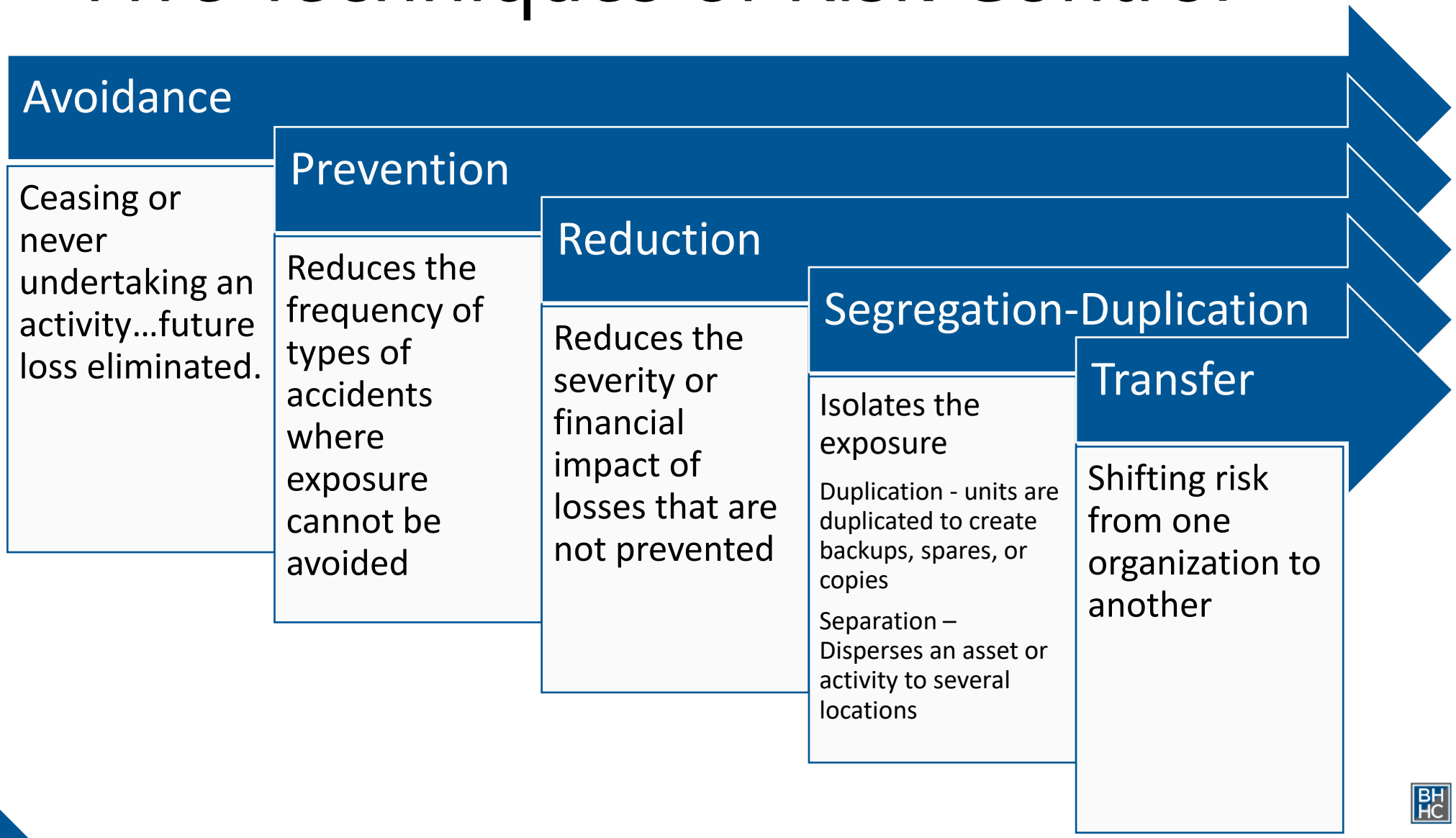
Installation of permanent anchorage points, fixed permanent work platforms

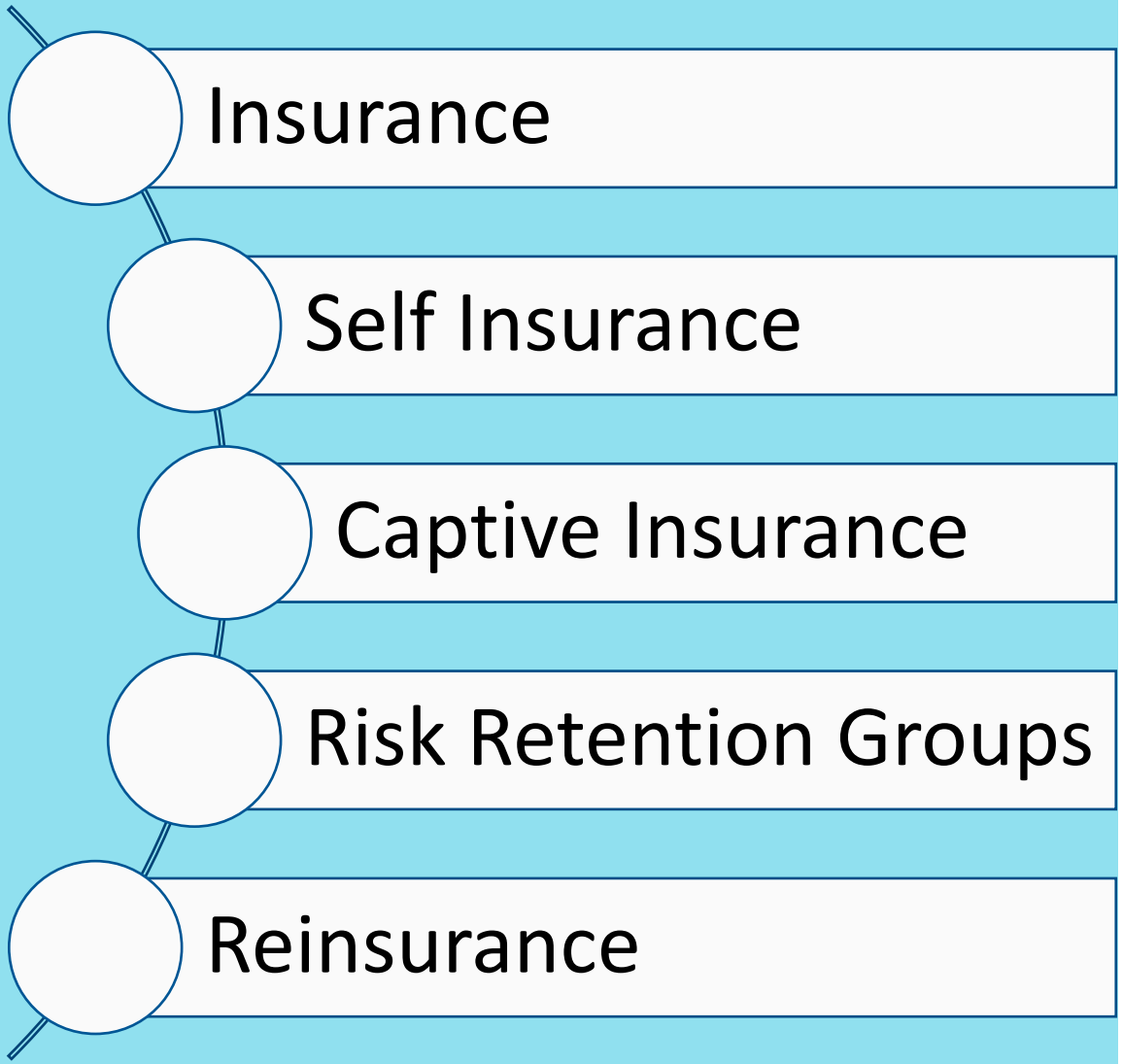
100% Tie off when feet 6’ off the ground

Compliance based – OSHA fall protection standard

Limited controls – training only & PPE

Five Techniques of Risk Control





Risk Financing

Funding the risk

- Insurance
  - Guaranteed Cost (carrier pays it all)
  - Loss Sensitive programs (skin in the game)
- Self Insurance
  - Formally setting aside funds to pay for losses
  - Claims can be internal or contracted out to others

Risk Administration

The systematic management and oversight of risk control measures within an organization

- Policy Development
- Monitoring and Reporting
- Compliance Management
- Resource Allocation
- Modifying and updating program with changes
- Measuring Effectiveness

Risk Management

Supervisors' Role

Conduct Regular Safety Inspections and Observations – Identify Risks

Help determine which hazards to address – Analyze Risk

Correct Identified Hazards – Control Risk

Provide Training and Resources - Control Risk

Monitor Compliance – Risk Administration

Encourage Reporting – Risk Administration

An effective Risk Management Process will help increase profitability

- Identify exposures and opportunities associated with risk including protection of cash flow and assets
- Improve workforce moral and productivity while improving quality, processes and use of technology
- Safeguard Brand and reputation while supporting Management objectives

SUMMARY

1. What is Risk?
2. Types of Risk
3. Identifying Risks
4. Risk Analysis and Controls
5. Risk Management