

**Change one thing  
and change everything**







Penny wise,  
pound foolish

Lesson 1 - Training

# **WARNING**

**Lesson 2 - Failed to warn**





Lesson 3 - Failed supervise



# HELLO

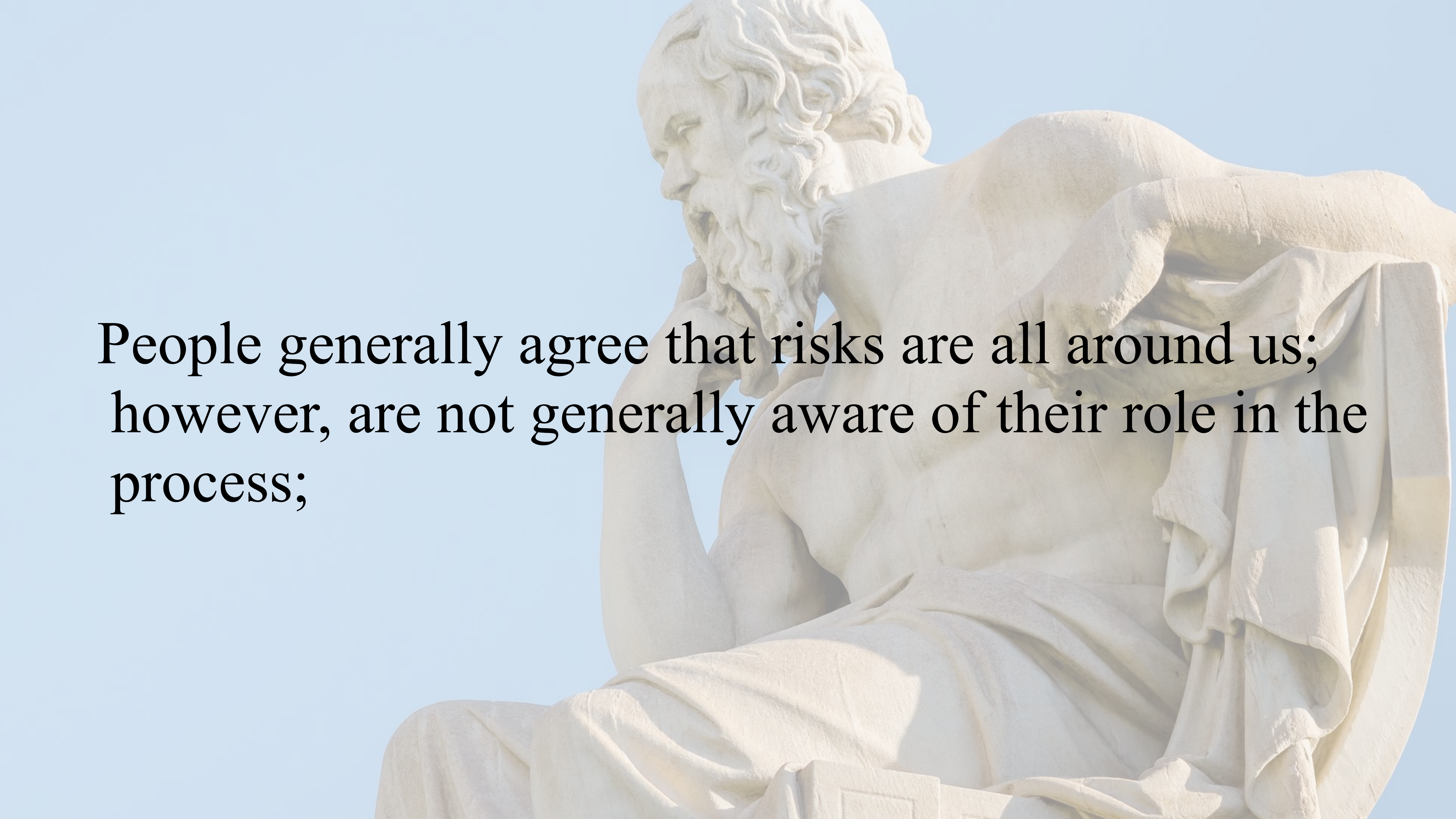
I AM...

200 matters involving

AN EXPERT

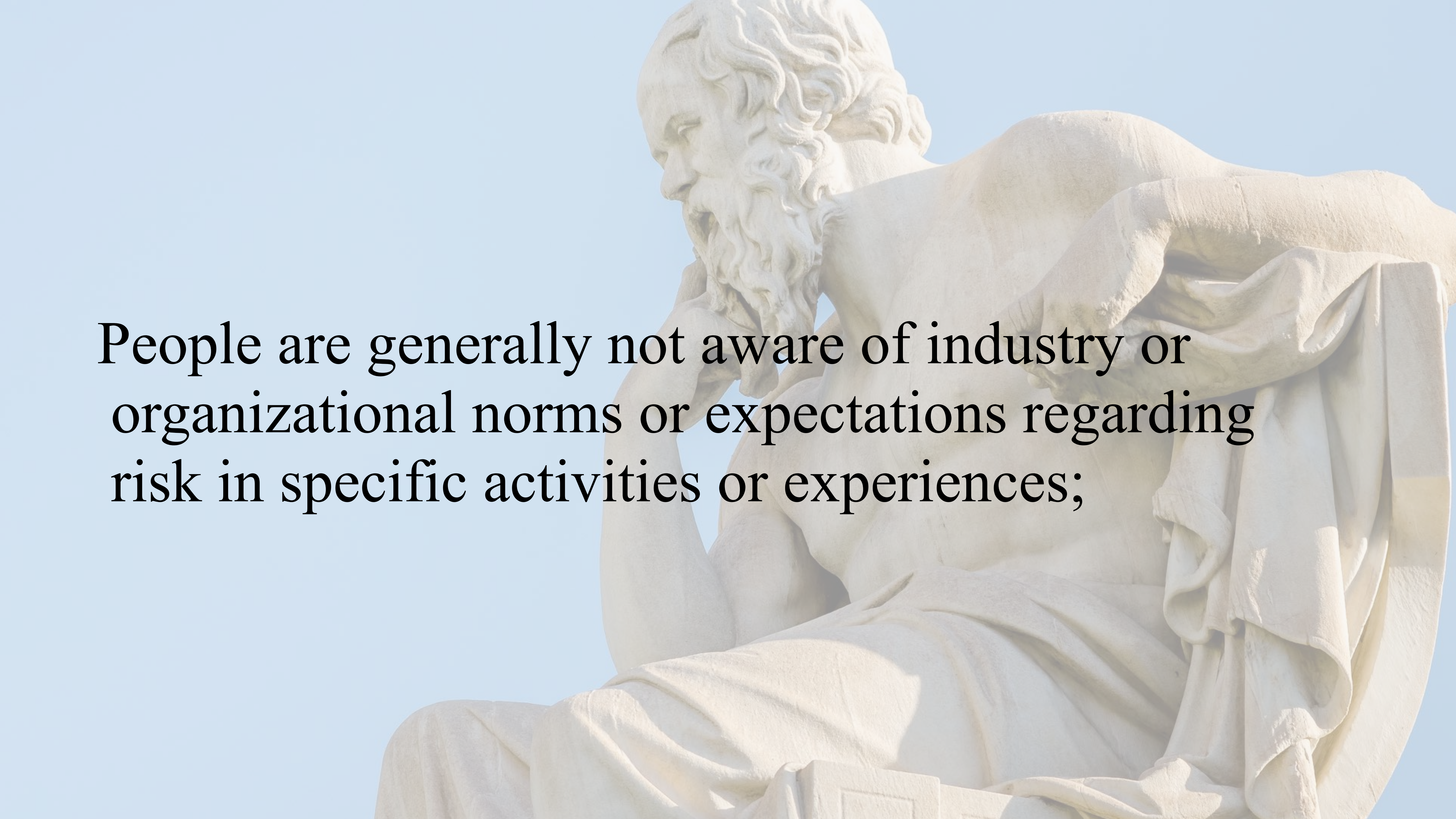
event and attraction matters of negligence





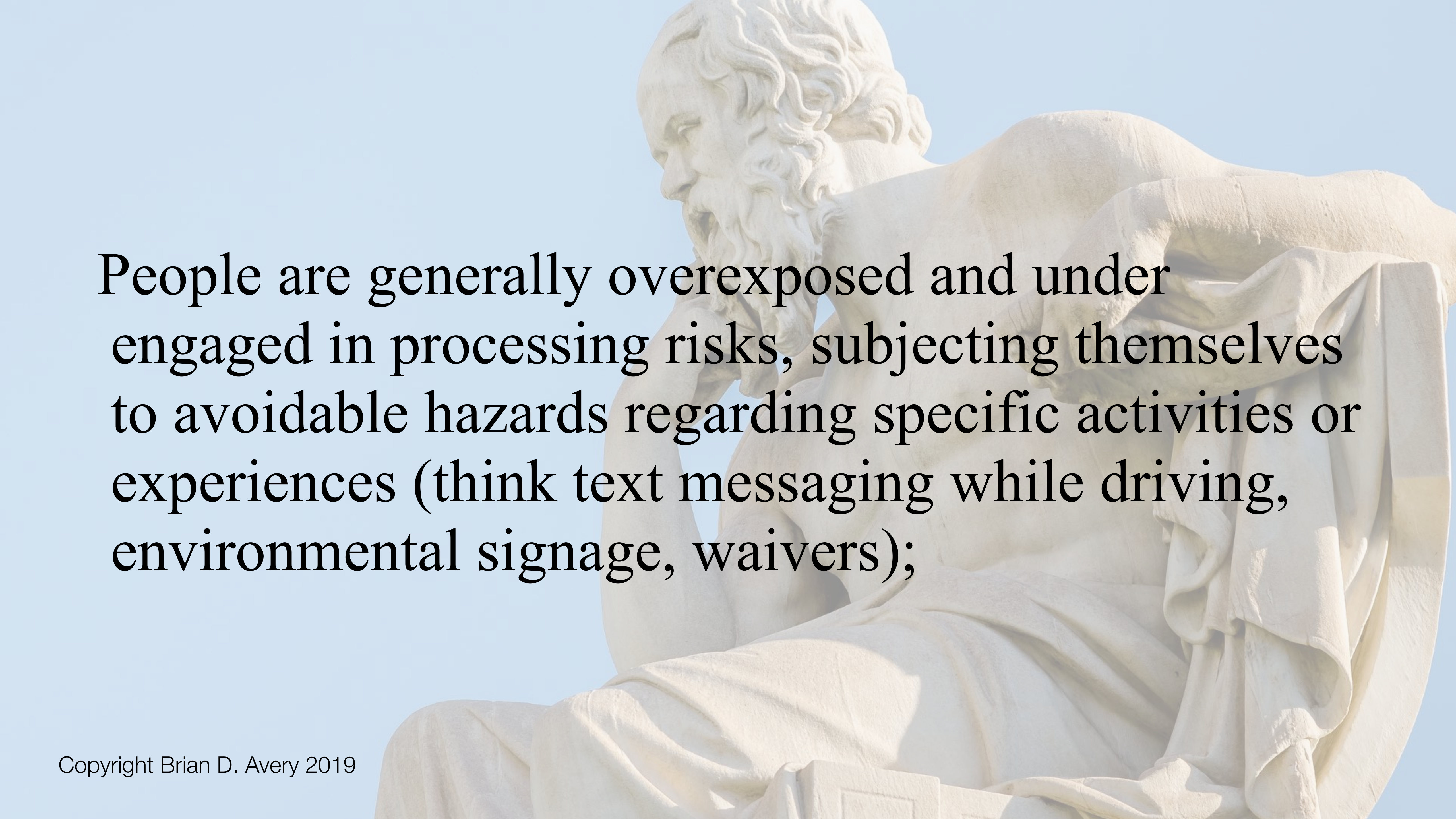
People generally agree that risks are all around us;  
however, are not generally aware of their role in the  
process;





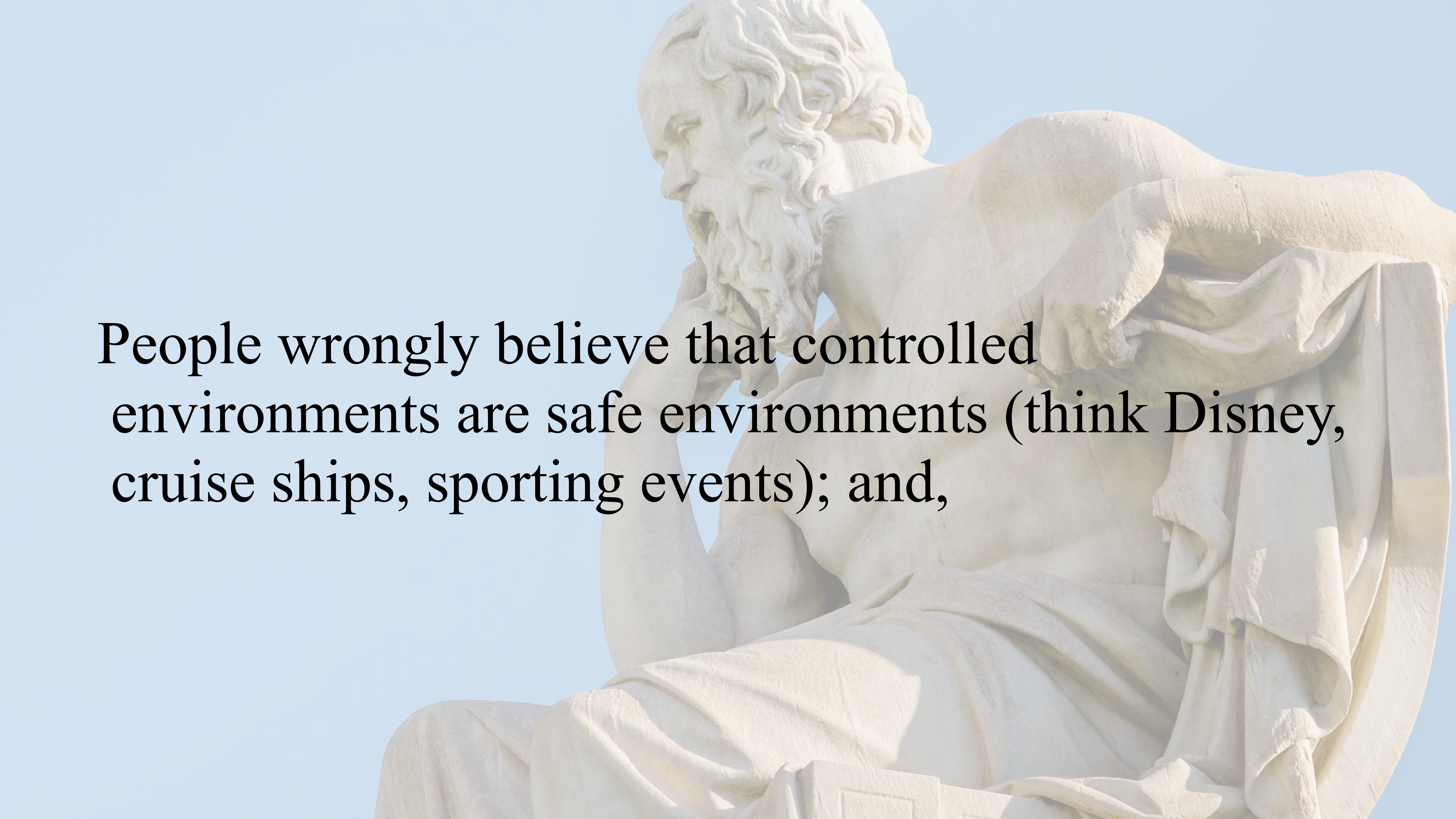
People are generally not aware of industry or organizational norms or expectations regarding risk in specific activities or experiences;





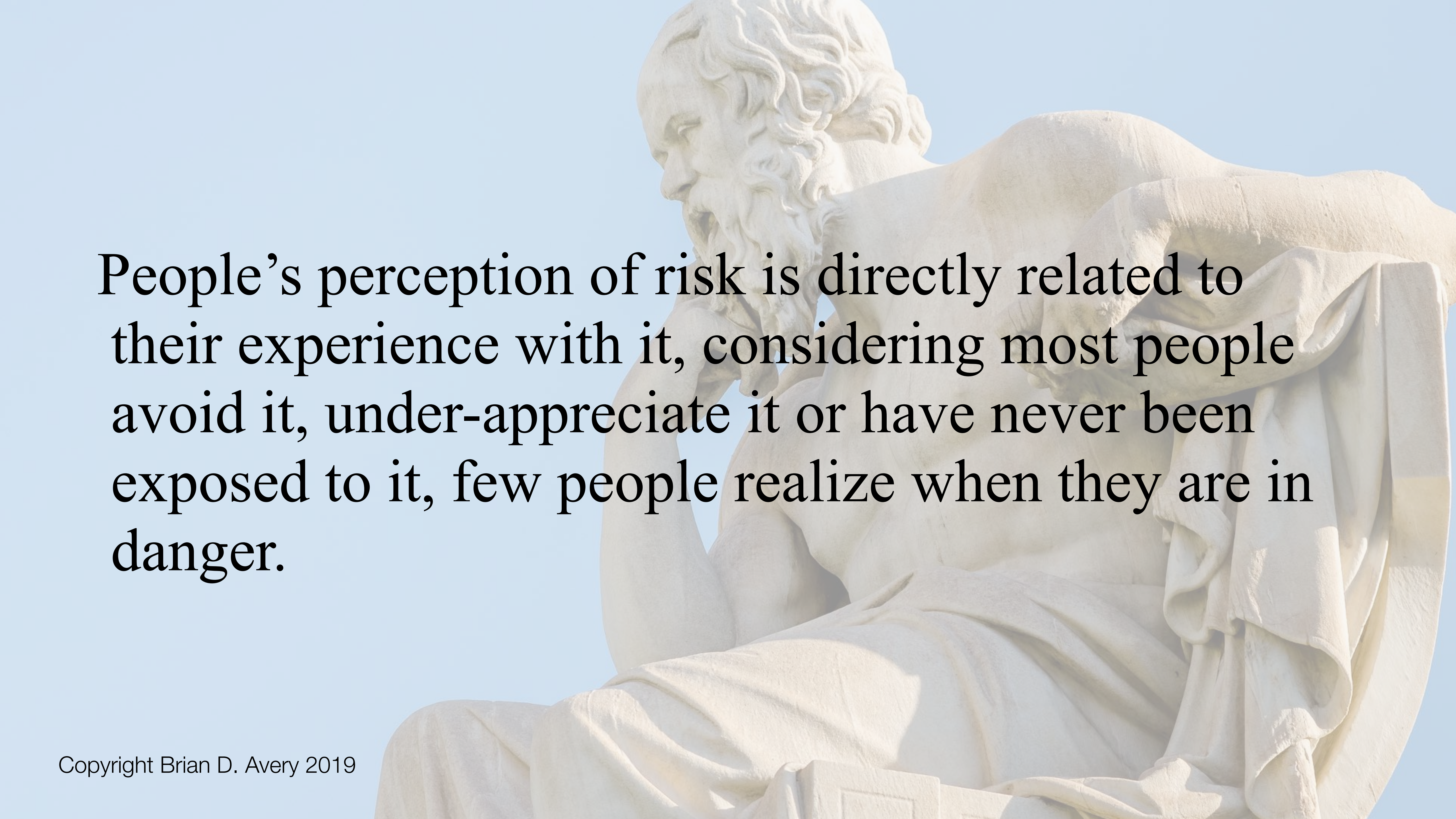
People are generally overexposed and under engaged in processing risks, subjecting themselves to avoidable hazards regarding specific activities or experiences (think text messaging while driving, environmental signage, waivers);



A white marble statue of a bearded man, likely a philosopher, is shown in a contemplative pose. He is seated, with his right hand resting on his chin and cheek, and his left hand resting on his lap. The statue is set against a clear blue sky. The text is overlaid on the left side of the image.

People wrongly believe that controlled environments are safe environments (think Disney, cruise ships, sporting events); and,





People's perception of risk is directly related to their experience with it, considering most people avoid it, under-appreciate it or have never been exposed to it, few people realize when they are in danger.



**FAILED**





A woman wearing a vibrant red sari and a matching headscarf is the central figure. She has a focused expression, looking directly at the camera. Her hands are raised, holding a large, white, circular sign that contains text. She is adorned with traditional Indian jewelry, including gold bangles, rings, and a necklace. In the foreground, several lit red candles are visible, casting a warm, golden glow. The background is softly blurred, showing other people in similar attire, suggesting a social gathering or event.

As industry  
leaders, owners,  
and operators, it is  
our job to better  
identify and  
communicate what  
is known and  
foreseeable.



Accidents happen...?





C A U S E



*Multicausation*



ROOT  
CAUSE





To mitigate and/or eliminate







A photograph of a yellow speed bump with a raised pedestrian crossing symbol in the center. The bump is set into a concrete surface. To the left and right of the yellow bump are blue metal grates with a raised dot pattern. A small white rectangular label is placed on the right side of the yellow bump, containing text about speed bumps.

## **7. Speed Bumps**

**7.1 Design to avoid the use of speed bumps.**

**7.2 All speed bumps which are in foreseeable pedestrian paths shall comply with 4.2 (walkway changes in level).**

**7.3 Existing speed bumps, that do not conform to 4.2, shall be clearly marked with safety color coding to contrast with surroundings in accordance with ANSI Z535.1. Painted speed bumps shall be slip resistant. Pedestrian CAUTION signs are recommended.**





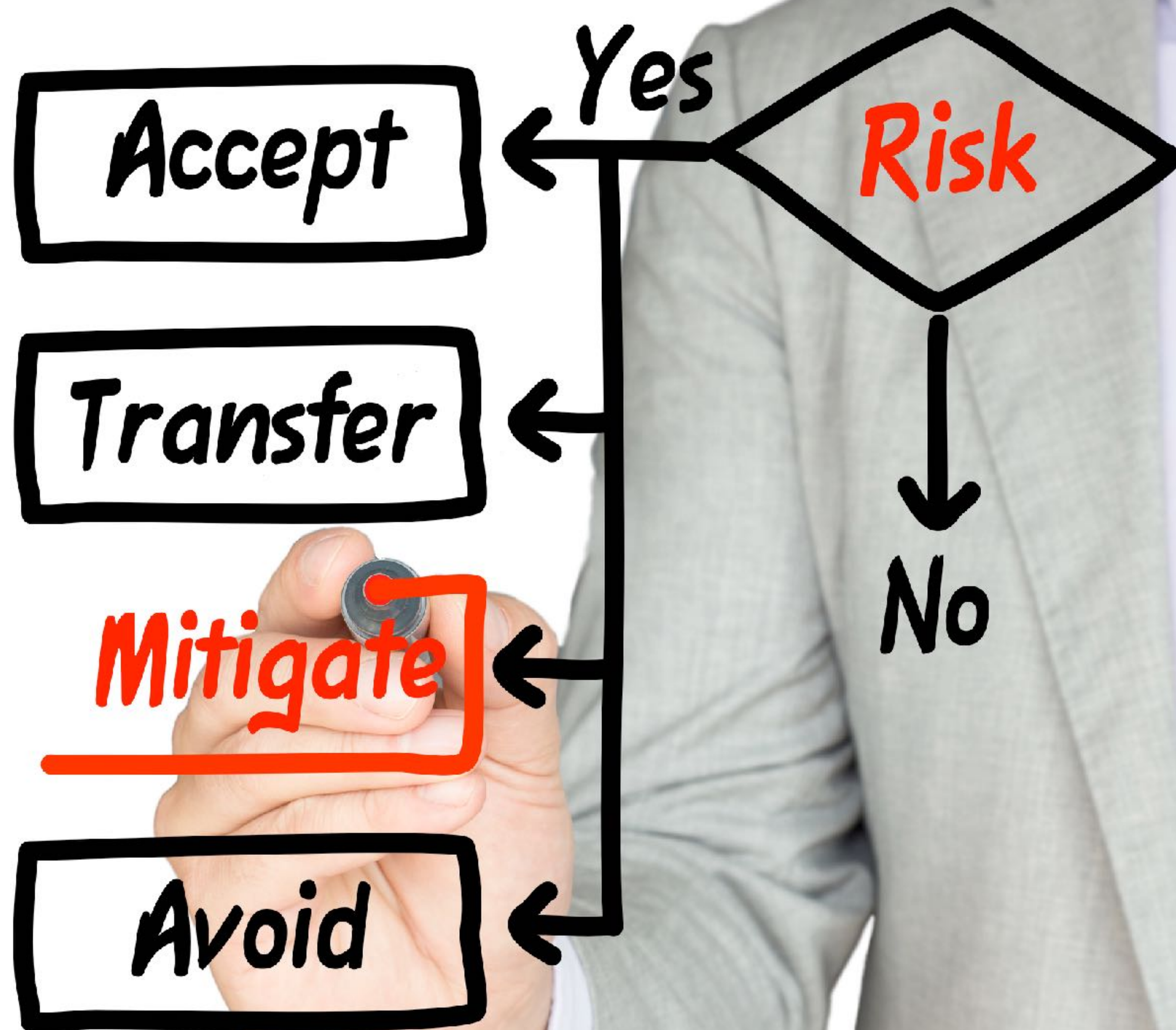
**Wisdom**  
Just Ahead



# FAILED

- Inspect
- Develop policies
- Follow standards
- Supervise













SECTION 1 - IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

The Coleman Company, Inc.  
3600 N Hydraulic  
Wichita, Kansas 67219  
Phone: 1 800 835 3278 (bus hours)



Chemical Nature: Petroleum Distillates, n.o.s.  
Trade Name: Coleman Camp Fuel  
Product Use: Fuel for lanterns and camp stoves  
Creation Date: 13-August-2012  
Revision Date: 30-June-2014



SECTION 2 - HAZARD IDENTIFICATION

UN Number: 1268, Petroleum Distillates, n.o.s.  
Classification: Class 3 Flammable Liquid, Category 2

SECTION 7 - HANDLING AND STORAGE

**Handling:** Keep product away from high energy ignition sources, heat, sparks, pilot lights, static electricity and open flame. Avoid contact with skin and inhalation of vapors or mists. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove fuel soaked clothing, shoes and gloves and launder before reuse or discard.

In case of insufficient ventilation, wear suitable respiratory equipment.  
Remove to fresh air immediately. Get medical attention immediately.  
Do NOT induce vomiting. Get immediate medical attention.  
Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.  
After contact with skin, take off immediately all contaminated clothing and wash immediately with plenty of soap and water. Get medical attention.  
Avoid run off to waterways and sewers.

SECTION 3 - COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical	CAS Number	EC Number	Conc. %	OSHA	Australia	Canada	EU
Light Hydrocarbon	68410-97-9	270-093-2	100%	---	---	---	---
Distillate							
Cyclohexane	110-82-7	203-806-2		300 ppm	100 ppm	100 ppm	200 ppm
Nonane	111-84-2	203-913-4		not set	200 ppm	200 ppm	not set
Octane	111-65-9	203-892-1		500 ppm	300 ppm	300 ppm	not set

Heptane	142-82-5	205-563-8	500 ppm	400 ppm	400 ppm	500 ppm
Pentane	109-66-0	203-692-4	1000 ppm	600 ppm	600 ppm	1000 ppm

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

SECTION 4 - FIRST AID MEASURES

Inhalation: Remove person to fresh air and seek immediate medical assistance. Give oxygen if breathing is difficult, give artificial resuscitation if not breathing.  
Eye Contact: Irrigate with water for 15 minutes. Hold eyelids open to ensure adequate flushing. Seek immediate medical assistance.  
Ingestion: Do NOT induce vomiting. Seek immediate medical assistance.  
Skin Contact: Remove contaminated clothing, jewelry and shoes. Wash skin thoroughly with soap and water. Seek immediate medical assistance.

SECTION 5 - FIRE FIGHTING MEASURES

spill and place in closed container for disposal. Advise EPA or state agency if required.

SECTION 7 - HANDLING AND STORAGE

**Handling:** Keep product away from high energy ignition sources, heat, sparks, pilot lights, static electricity and open flame. Avoid contact with skin and inhalation of vapors or mists. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove fuel soaked clothing, shoes and gloves and launder before reuse or discard.

**Storage:** Store fuel in a cool area with adequate containment in the event of spills. Check containers periodically for leaks.

**Special Precautions:** To prevent and minimize fire or explosion risk from static accumulation and discharge, effectively bond and/or ground product transfer system. Electrical equipment and fittings must comply with local fire prevention regulations for this class of product.  
**EMPTY CONTAINER WARNING:** Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY OR OTHER





**Wisdom**  
Just Ahead



A man with glasses is looking through a magnifying glass at a document. The word "Failed" is overlaid in large, bold, red letters across the center of the image. The background is a textured, greyish surface with scattered letters.



Failed

PROCEDURE

POLICIES

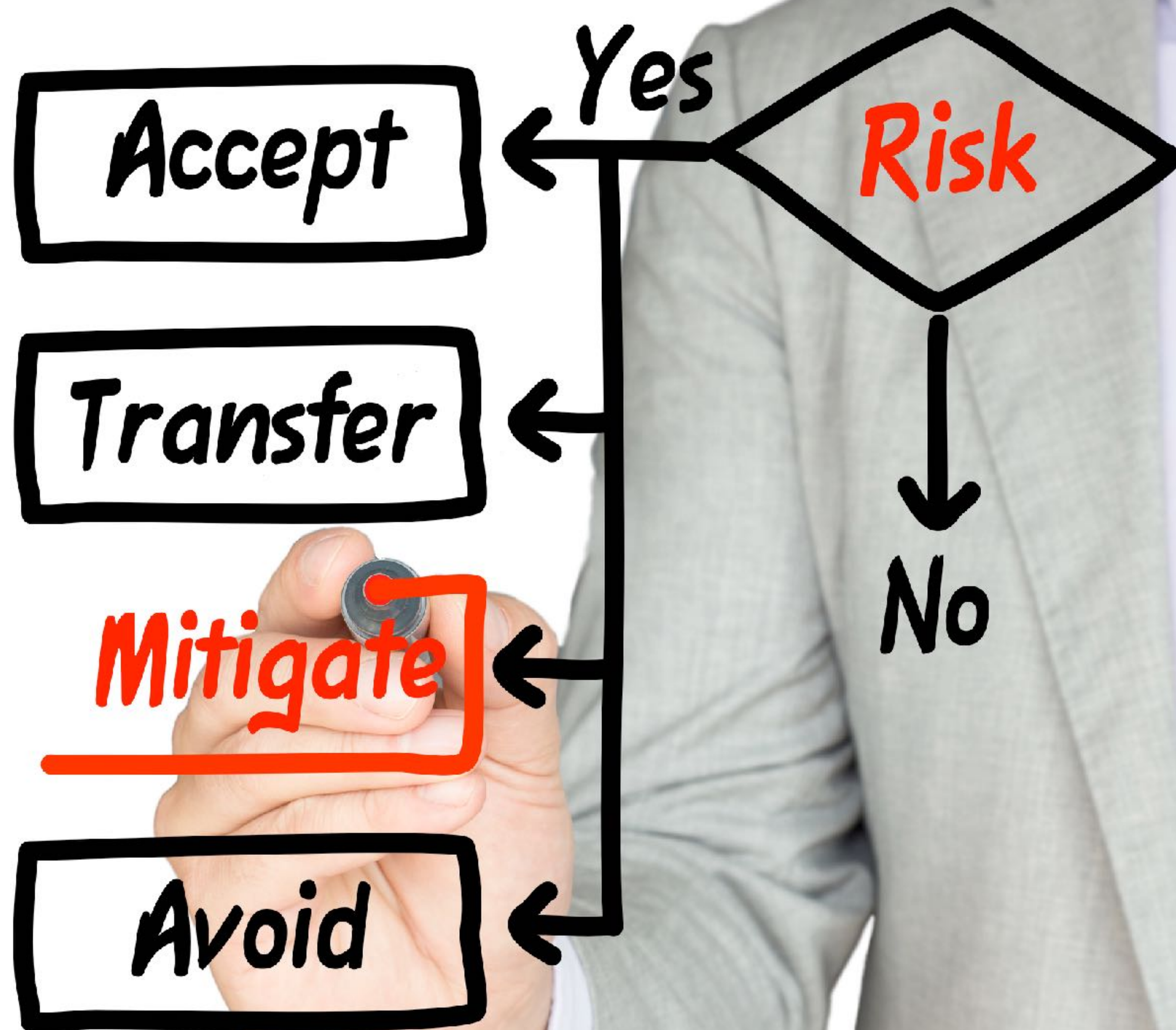




Failed









# Your turn...

- Exhibit trailer jack / trailer flips at event
- Car struck 2 female festivals goers
- Column with header collapse at Vegas pool party
- Snoop Dogg concert railing collapse



# Your turn...

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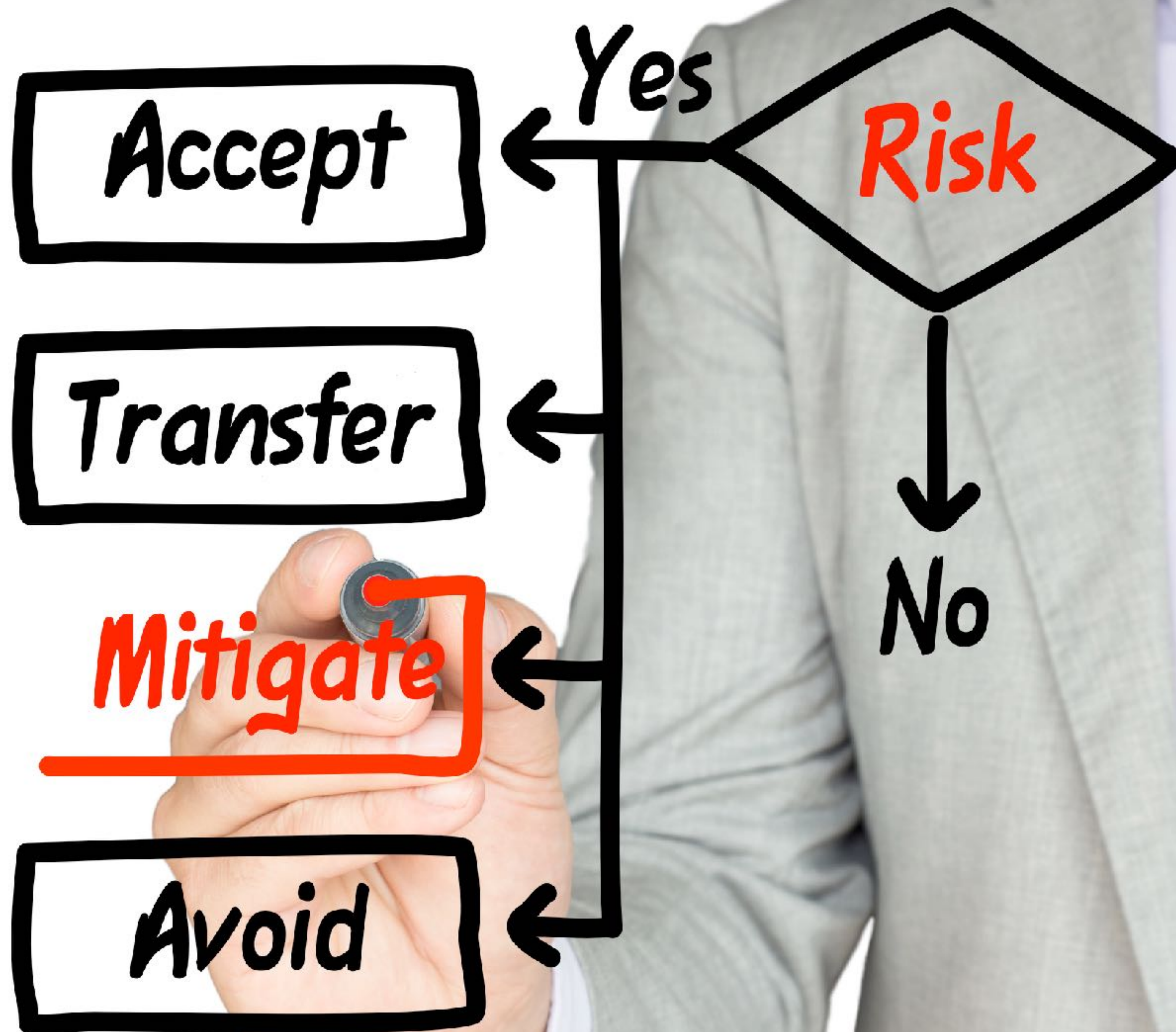
- Pre-event tent collapse during wind storm
- Music festival security checkpoint
- iHeart Radio production TV/truss drop
- Halloween hayride scare actor



# Failed

But how?










**KNOW  
YOUR  
ROLE**



Two red pushpins are pinned to the top edge of a yellow sticky note. The pushpins are positioned close together, with one slightly overlapping the other.

In identifying the  
known and  
foreseeable



WHO  
WHAT  
WHEN  
WHERE  
WHY

FIVE

WH

?



A recognized **international framework** addressing the knowledge and skills essential to create, develop and deliver an event.

Event management is made up of **five areas** of management: Design, Administration, Marketing, Operations and ***Risk***.

The process includes **assessment** (identification and analysis), **selection** (goal-oriented), **monitoring** (progress and status), **communication** (acquisition and distribution) and **documentation** (data and evidence).

www.kk





The purpose and role of the  
event and/or attraction





The audience and the stakeholders





The date and duration





The location and space





The resources available and  
desired outcomes







ANSWER



# What standards apply

**OSHA**

**NFPA 101**

**ICC**

**NFPA 102**

**ASTM 1637**

**ANSI Z535**

**DOT/MOT**

**FEMA**

***Practices***



# Standards

- ASTM Volume 15.07, which includes sports equipment, playing surfaces, and facilities; pedestrian/walkway safety and footwear; amusement rides and devices; snow skiing
- 2018 International Building Code
- 2018 International Fire Code
- **2018 NFPA 101: Life Safety Code**
- **2016 NFPA 102: Standards for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures**
- 2018 NFPA 140: Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations
- 2016 NFPA 160: Standard for the Use of Flame Effects Before an Audience
- 2019 NFPA 610: Guide for Emergency and Safety Operations at Motorsports Venues
- 2018 NFPA 1123: Code for Fireworks Display
- 2016 NFPA 1126: Standard for the Use of Pyrotechnics Before a Proximate Audience
- 2019 NFPA 1600: Standard on Continuity, Emergency, and Crisis Management
- **2018 NFPA 730: Guide for Premises Security**
- ICC 300-2017: Standard for Bleachers, Folding and Telescopic Seating, and Grandstands
- ANSI E1.2-2012: Entertainment Tech Design, Manufacture and Use of Aluminum Trusses and Towers
- ANSI E1.21-2013: Entertainment Technology - Temporary Structures Used For Technical Production Of Outdoor Entertainment Events
- ANSI E1.47-2017: Entertainment Technology -- Recommended Guidelines for Entertainment Rigging System Inspections
- ANSI E1.46-2016: Standard for the Prevention of Falls from Theatrical Stages and Raised Performance Platforms
- ANSI E1.34-2009: Entertainment Technology - Measuring And Specifying The Slipperiness Of Floors Used In Live Performance Venues
- ANSI E1.43-2016: Entertainment Tech-Performer Flying Systems
- **ANSI Z535 Series: Safety Color Code - Environmental Facility Safety Signs - Criteria For Safety Symbols - Product Safety Sign & Labels And Accident Prevention Tags**
- **ANSI/ILTVA Z130.1 - Golf Cars - Safety and Performance Specifications**
- NSF/ANSI Standard 59 – Indoor/outdoor food service carts
- ANSI B-77 Aerial Tramway Standards
- Climbing Wall Association
- The Association for Challenge Course Technology

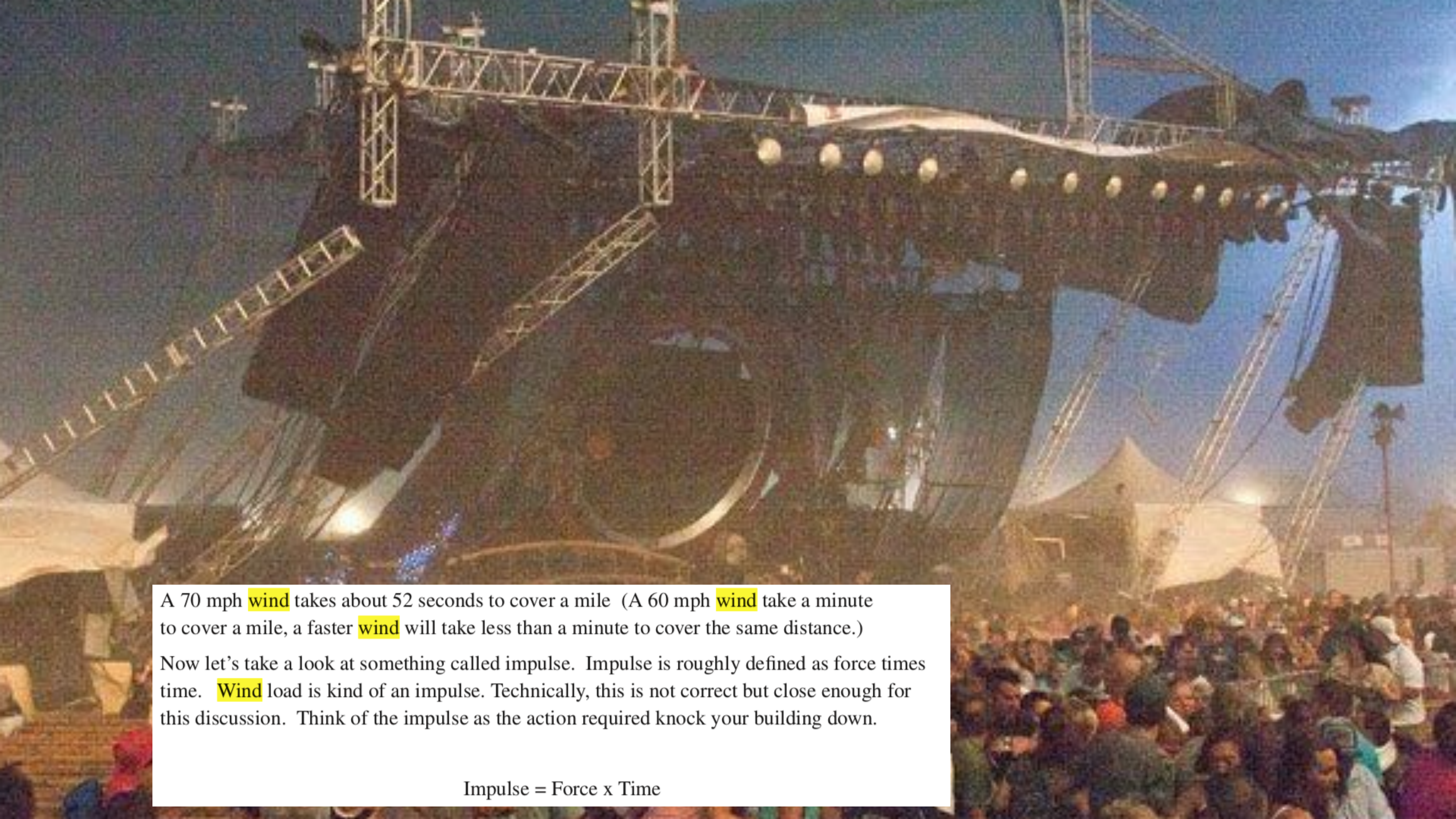


The background is a collage of four diagonal panels. From left to right: a dark stormy sky with lightning, a blue sky with white clouds, a vibrant sunset or sunrise with orange and yellow hues, and a bright blue sky with white clouds. At the bottom left, a dark blue ocean with white-capped waves is visible.

# NOAA

National Oceanic and Atmospheric Administration





A 70 mph **wind** takes about 52 seconds to cover a mile (A 60 mph **wind** take a minute to cover a mile, a faster **wind** will take less than a minute to cover the same distance.)

Now let's take a look at something called impulse. Impulse is roughly defined as force times time. **Wind** load is kind of an impulse. Technically, this is not correct but close enough for this discussion. Think of the impulse as the action required knock your building down.

$$\text{Impulse} = \text{Force} \times \text{Time}$$





**State Regs.**





Designation: F770 – 14

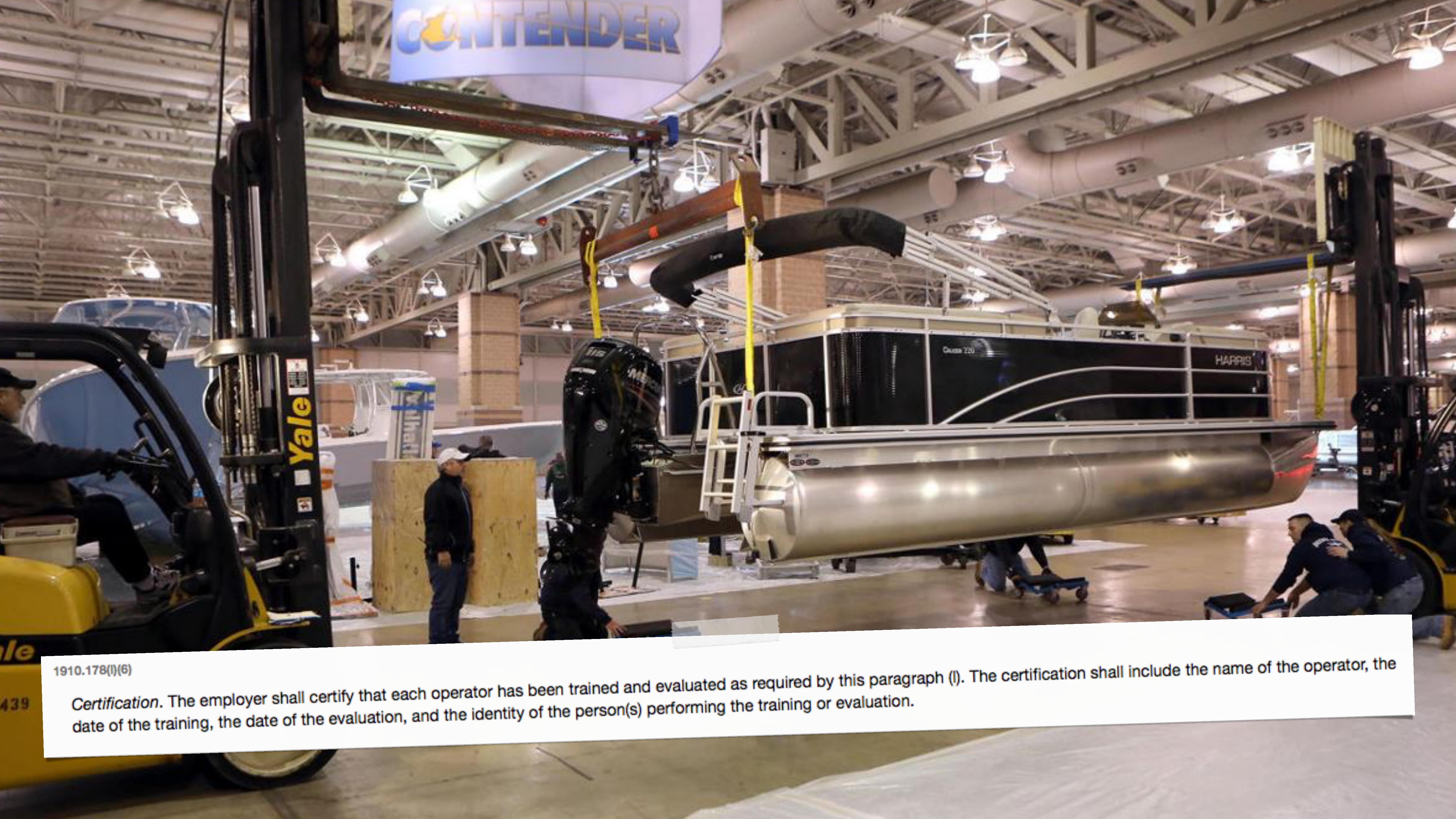
**Standard Practice for  
Ownership, Operation, Maintenance, and Inspection of  
Amusement Rides and Devices<sup>1</sup>**





OSHA





1910.178(l)(6)

*Certification.* The employer shall certify that each operator has been trained and evaluated as required by this paragraph (l). The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.



**CAUTION  
WET FLOOR**



**PRECAUTION**

- (A) for use with **DANGER** signal word; (safety white triangle, safety red exclamation mark, safety red background)
- (B) for use with **WARNING** signal word; (safety black triangle, safety orange exclamation mark)
- (C) for use with **CAUTION** signal word; (safety black triangle, safety yellow exclamation mark)
- (D) and (E) for use with **DANGER, WARNING, or CAUTION** signal words; ([D] is a safety yellow triangle with a safety black border and safety black exclamation mark; [E] is a safety yellow triangle with a safety black exclamation mark and a safety yellow border around a safety black band)



A photograph of a road with a large, deep crack and a raised section of asphalt, showing significant damage. The crack runs diagonally across the frame, and the raised section of asphalt is on the right side. The background shows some greenery and a clear sky.

# Building Codes - FEMA



### **12.7.5\* Crowd Managers.**

**12.7.5.1** ~~In assembly~~ Assembly occupancies ~~having occupant loads exceeding 1000,~~ shall be provided with a minimum of one trained crowd manager or crowd manager supervisor. Where the occupant load exceeds 250, additional trained crowd managers or crowd manager supervisors shall be provided at a ratio of 1 crowd manager/supervisor for every 250 occupants unless otherwise permitted by the following:

- (1) This requirement shall not apply to assembly occupancies used exclusively for religious worship with an occupant load not exceeding 2000.
- (2) The ratio of trained crowd managers to occupants shall be permitted to be reduced where, in the opinion of the authority having jurisdiction, the existence of an approved, supervised automatic sprinkler system and the nature of the event warrant.

**12.7.5.2** The crowd manager shall receive approved training in crowd management techniques.



# What could possibly Go wrong?

- Sale and/or consumption of alcohol
- Poor *communication system*?
- Children attending?
- **Inexperienced security?**
- Poor signs (exits, etc.)?
- **Slippery surfaces?**
- Weather conditions?
- Exposure to theft of property?
- Fireworks?
- *Hazardous event activities*?
- Behavior of performers?
- Event cancellation or performer no-show?
- Inexperienced organizers?
- **Use of locations not designed for events?**
- Over capacity CROWDS?
- No permitting?

- Falling objects?
- Use of animals?
- No parking lot security?
- The use of **VOLUNTEERS**?
- International attendance?
- No evacuation plan?
- Poor perimeter fencing?
- Admitting weapons or menacing objects?
- Long lines and waits?
- Poor ventilation?
- Slow emergency response?
- One-of-a-kind and first-time events?
- **USE OF CONTRACTORS...**
- Loaned or rented equipment?
- Sale of product?
- No Insurance coverage?



*When standards don't exist...*

## **Avoiding Liability**

- Legislation check
- Manufacturers materials check
- Associations check
- Case law check



The 5 elements of

# Risk Planning

Safety

Insurance

Emergency Training

Contracts

Security

**Proactive measure**

**Protects parties in the event**

**Reactive response**

**Agreements between parties**

**Observe and report**



## Planning

Last minute changes that go unchecked

## Supervision

Do people need a babysitter

## Communication

What do they know?

## Site Selection

Purpose vs. non-purpose built

## Activities

Have limitations...  
We ALL have them!

**AVOID** THESE  
**5** PITFALLS....







**5 Steps to  
Success...**

- 1. Integrate all policies and practices**
- 2. Analyze each situation**
- 3. Research if unfamiliar**
- 4. Address your findings with a plan**
- 5. Carry out your plan**



# EXPERIENCE



## People want to care, but...

- Too expensive
- Don't have the time
- Not capable

## Excuses... or GAPS

- I didn't think about it
- I don't know
- I made a mistake

A lack of foreseeability...

is construed as a **failure** to do and *know your job!*





If you  
change  
nothing,  
nothing  
will change





# Questions?

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Thank  
You!

