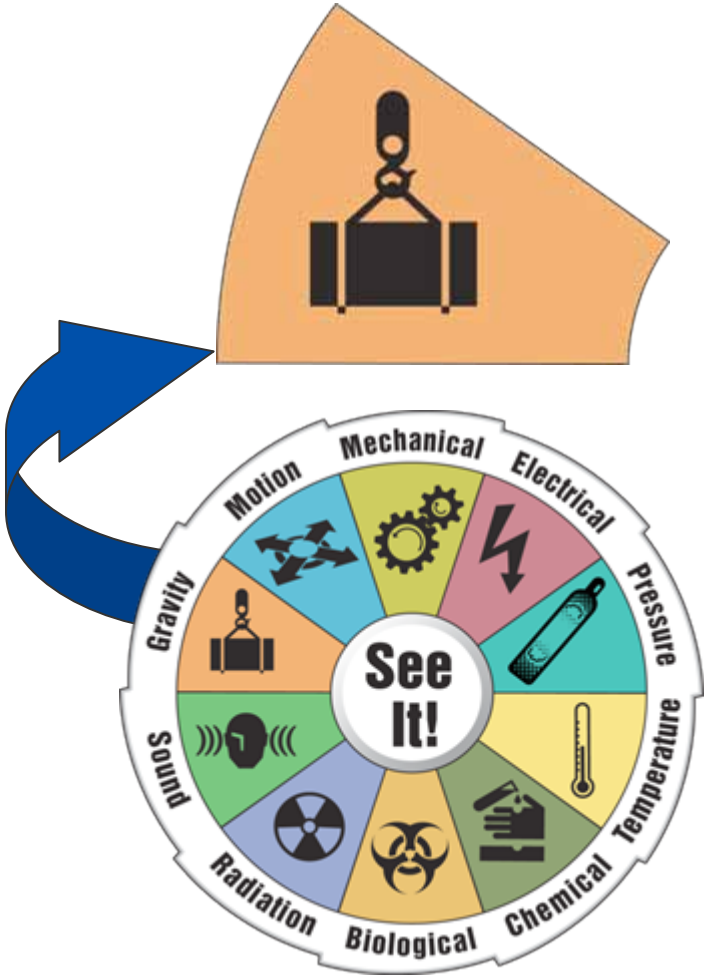
Cone of Exposure
OE Moment



GRAVITY

The force caused by the attraction of all other masses to the mass of the earth.

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Upstream and Gas Fatality Prevention Study

Top Four Potentially Fatal Means of Injury

Top 4 Means of Injury

- Struck by (e.g., hit by an object dropped from height)
- Falling from a height of two meters or more
- Exposure to electrical
- Motor vehicle crash

Opportunity!

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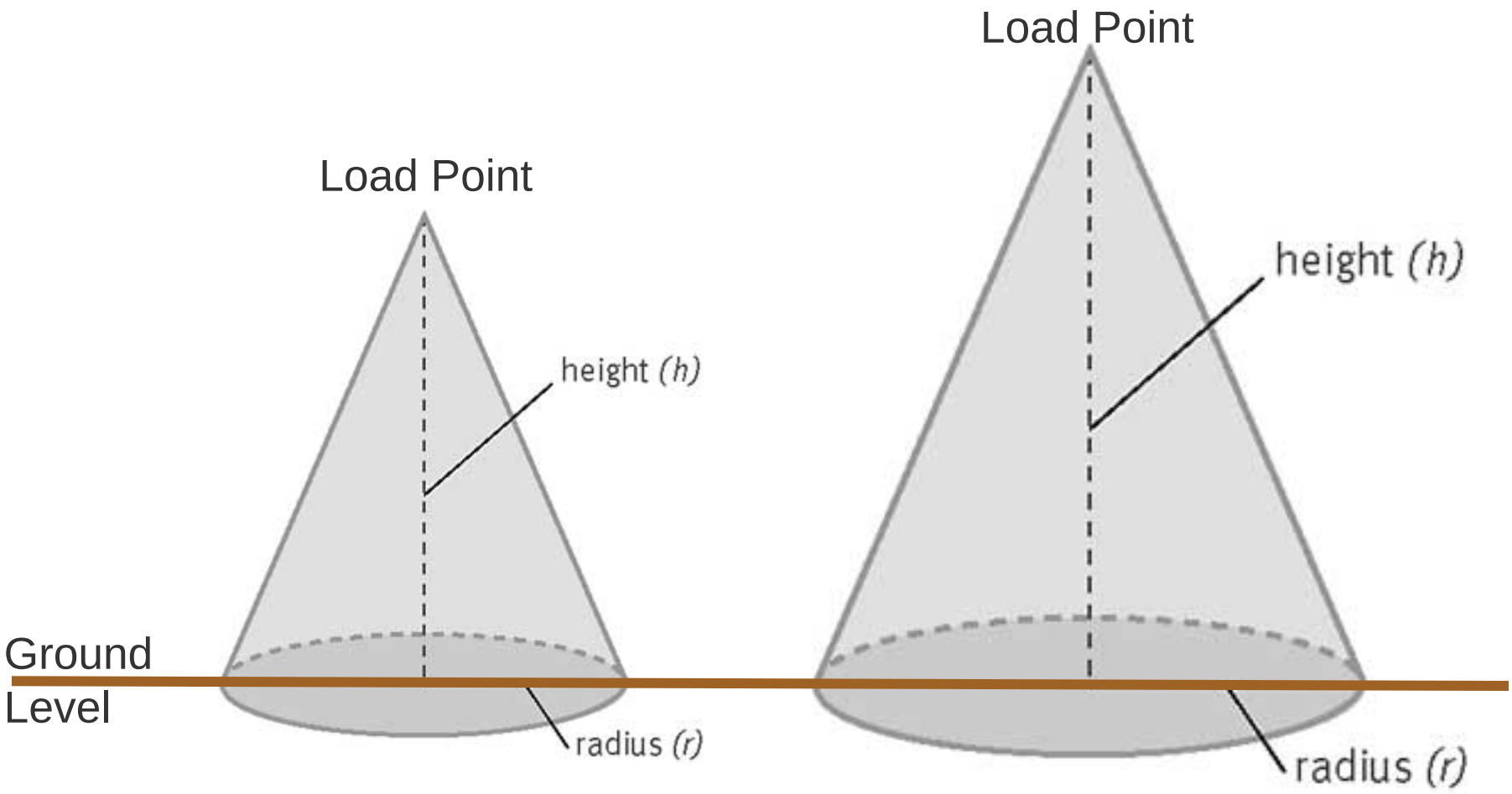
The Cone of Exposure

A Definition

The cone usually gets bigger the higher the load.



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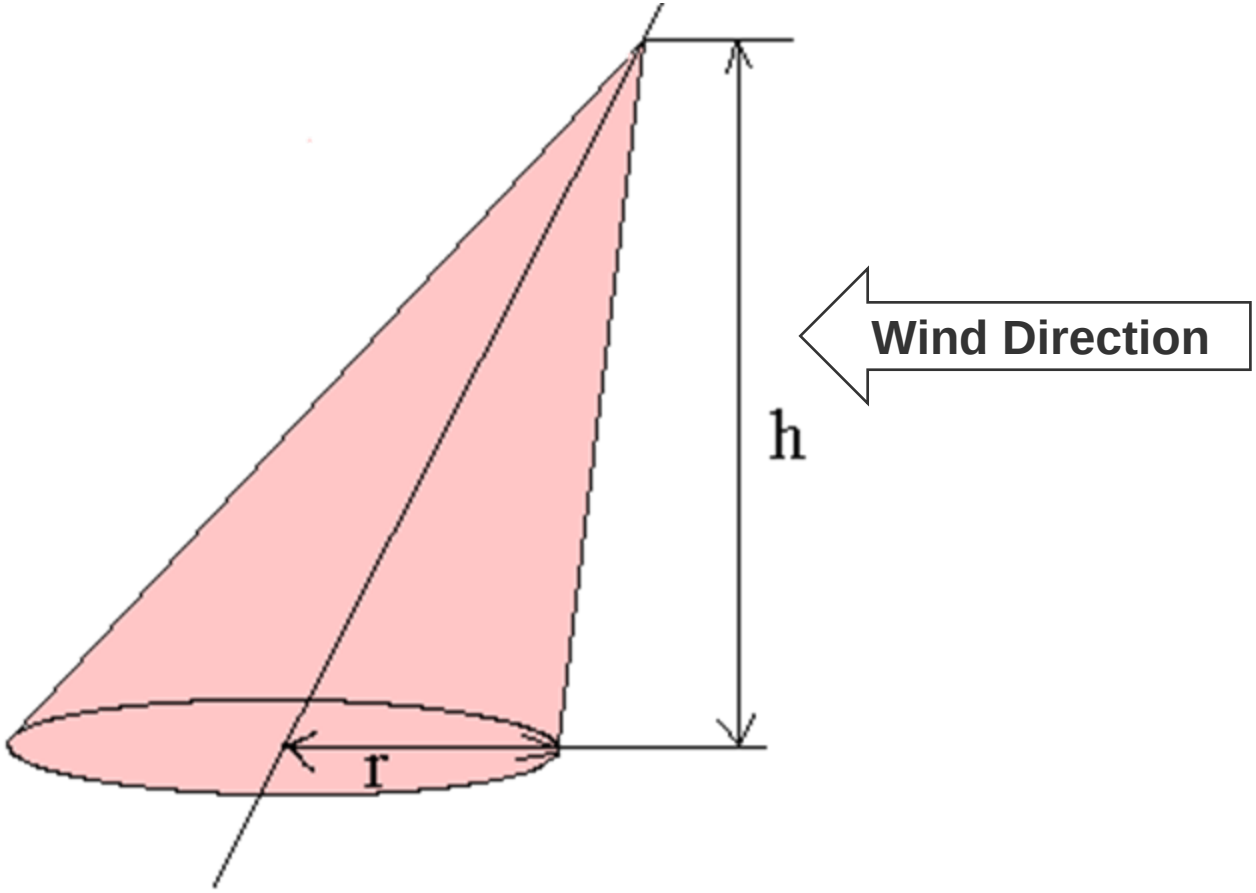
The Cone of Exposure

A Definition

Winds, slopes, load weight, and load center of gravity will affect the shape of the cone.



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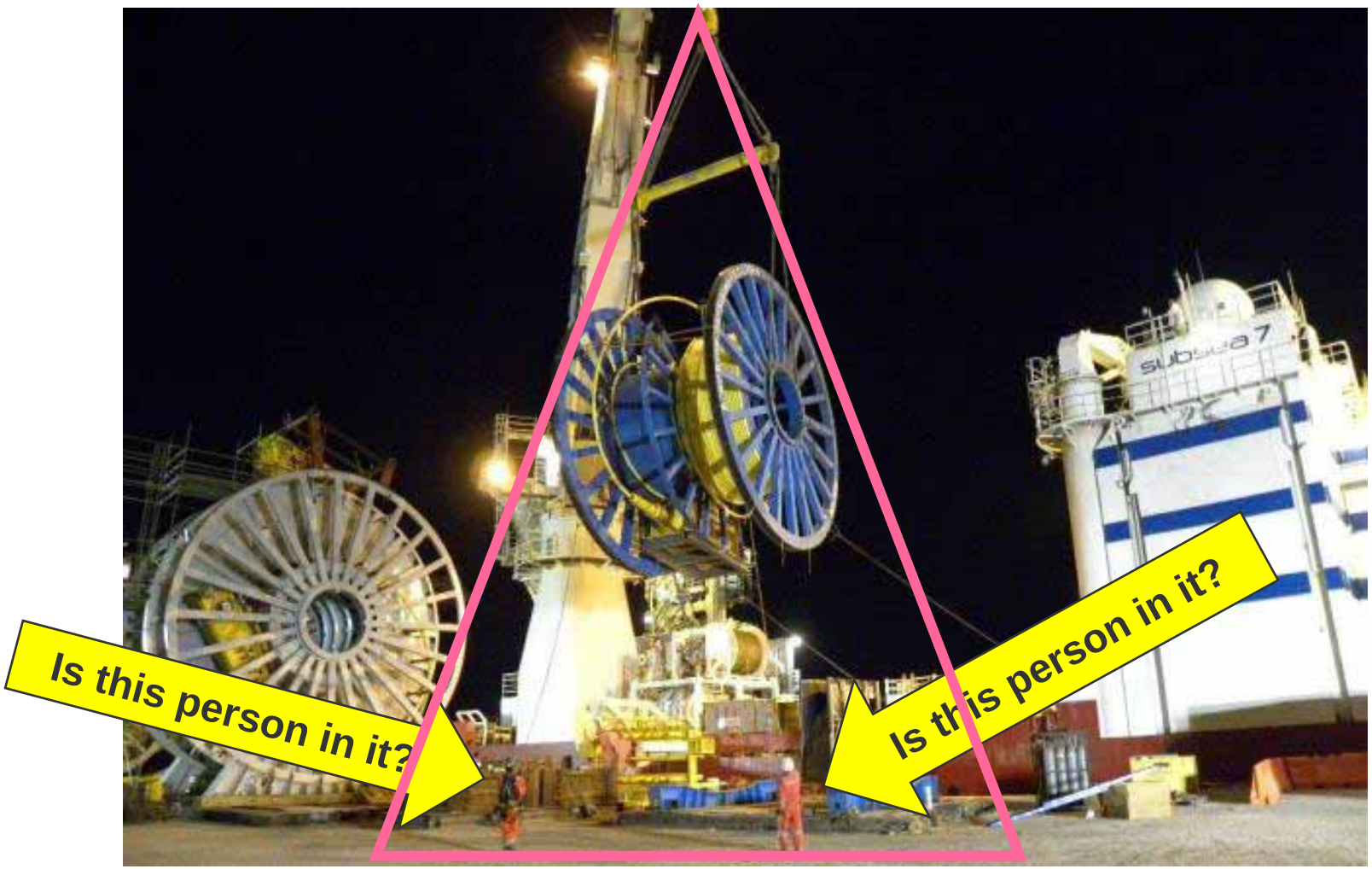
The Cone of Exposure

An Example



If this load fell, where would it fall? Could it roll? Tip over?

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The Cone of Exposure

An Example

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The Cone of Exposure

An Example

If this load fell, where would it fall? Could it roll? Why is the load already twisting?

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The Cone of Exposure

An Example

Safe behaviors include feet in safe spot, eyes on load, good body position, and good use of tag line.

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Stop and Discuss
The Cone of Exposure – Significant Hazards

- Unclear communication and being out of crane operator line of sight increases the risk of accidentally entering the cone
- Pipes & cylinders are statistically much more likely to become a dropped object
  - Special consideration should be given to where they can twist & rotate & fall
- Improper rigging may cause dropped loads
- Equipment over-loading, over-extension and over-turning can result from lifting device malfunction, operator error, heavy winds, or miscalculations
- Equipment strikes can increase the risk of a load being dropped
- Loads that can shift or move increase the size of the cone
- Congested work areas can limit rigger escape from the cone

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Achieving an ALWAYS Culture

We Need a New Level of Commitment:

- Consider the ‘Cone of Exposure’ before undertaking every lift – being sure to recognize where severe injuries or incidents could result if the load fell

Leave Today’s Engagement Committed to:

- Perform *every lift, the right way, every time*, and
- ALWAYS protect yourself, your co-workers, and your family by staying outside the ‘Cone of Exposure’

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