



**RADIANS®**

HIGH VISIBILITY GARMENTS

***STRUCK-BY HAZARDS***

*Increase Your Confidence In Worker Visibility*





Over the past several years, OSHA has led an initiative to create awareness and ultimately decrease injuries and fatalities of the “Fatal 4”.

## **THE FATAL FOUR:**

Four leading causes of serious injuries and deaths in the construction industry

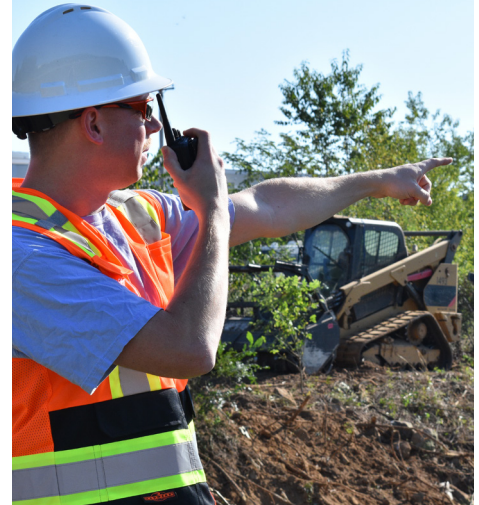
- 1** Falls
- 2** Struck-By
  - A** Flying Objects
  - B** Falling Objects
  - C** Swinging Objects
  - D** Rolling Objects
- 3** Electrocution
- 4** Caught In-Between

**The Fatal 4 Account For Over**

# 30%

**Of All Workplace Fatalities**

*An estimated 10% of workplace fatalities are due to Flying Objects, Falling Objects, Swinging Objects, and Rolling Objects.*



## *Let's Talk About* **STRUCK-BY HAZARDS**

### **Statistics:**

- No. 1 cause of non-fatal injuries
- 9.4% of construction fatalities
- 2nd highest cause of worker fatalities
- Avg per death worker costs \$15M
- Total workers compensation cost \$1.7B

***OSHA recommends High Visibility garments as a prevention tactic.***



OSHA credits Struck-by hazards as a leading cause of fatal injuries and the chief cause of non-fatal injuries within the construction sector. In 2019 170 deaths were the result of struck-by injuries and almost half of them involved moving transport vehicles. How often are you speaking to your teams about struck-by hazards? How often are risk assessments being performed?

Struck by incidents are the most investigated work zone incidents. Once an assessment is performed it offers opportunities to improve worker safety. One element of worker safety is requiring the proper PPE, including wearing High Visibility clothing. High Visibility clothing creates greater visibility of workers within the work zone. This could reduce the likelihood of struck-by incidents.



# **THE 4 TYPES OF STRUCK BY:**

<b>1</b> <b>FALLING OBJECTS</b>	<b>2</b> <b>FLYING OBJECTS</b>	<b>3</b> <b>SWINGING OBJECTS</b>	<b>4</b> <b>MOVING/ROLLING OBJECTS</b>
<ul style="list-style-type: none"> <li>■ Items knocked off scaffolds</li> <li>■ Crane loads coming loose</li> <li>■ Dropped items</li> </ul>	<p>420 Fatalities</p> <ul style="list-style-type: none"> <li>■ Nail gun discharges</li> <li>■ Thrown tools/debris</li> <li>■ Flying tips of saw blades</li> </ul>	<ul style="list-style-type: none"> <li>■ Mechanically lifting materials</li> <li>■ Workers within the swing radius</li> </ul>	<p>384 Fatalities</p> <ul style="list-style-type: none"> <li>■ Struck by vehicle</li> <li>■ Struck by heavy equipment</li> </ul>
<b>PREVENTION:</b>			
<ul style="list-style-type: none"> <li>■ Tethering objects</li> <li>■ Toe boards or screens and debris nets</li> <li>■ <b>Hi-vis clothing</b></li> </ul>	<ul style="list-style-type: none"> <li>■ Inspect tools</li> <li>■ Wear safety glasses, goggles, face shield, hard hats</li> <li>■ <b>Hi-vis clothing</b></li> </ul>	<ul style="list-style-type: none"> <li>■ Clear the swing radius</li> <li>■ Communication</li> <li>■ <b>Hi-vis clothing</b></li> </ul>	<ul style="list-style-type: none"> <li>■ Clear the area if possible</li> <li>■ Communication</li> <li>■ Training of drivers and people in vehicle areas</li> <li>■ <b>Hi-vis clothing</b></li> </ul>

Many of these injuries or accidents include passive involvement. It is often the workperson in the work zone or radius that gets injured, not the workperson operating the machinery or equipment. By increasing visibility of these tradespeople, you're offering them greater protection.



How Hi-Vis protection  
can help prevent

# STRUCK-BY HAZARDS

Get **DFACTs**

<b>D</b> DETAILED DESCRIPTOR	<b>F</b> FEATURES	<b>A</b> APPLICATIONS	<b>C</b> COSTS	<b>T</b> TIMING
<ul style="list-style-type: none"> <li>■ Current Hazards or challenges?</li> <li>■ What has been done to address them?</li> </ul>	<ul style="list-style-type: none"> <li>■ Which features are required to perform the job? <ul style="list-style-type: none"> <li>- Pockets</li> <li>- Grommets</li> <li>- Mic Tabs</li> <li>- Tether Capability</li> <li>- Type of Fabric</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Near which types of equipment?</li> <li>■ Roadway?</li> <li>■ Working at Height or near leading edge?</li> <li>■ Time of day?</li> <li>■ Climate?</li> <li>■ Wet or Dry conditions?</li> </ul>	<ul style="list-style-type: none"> <li>■ Typical cause for replacement?</li> <li>■ How long does current product last?</li> <li>■ Cost of current product?</li> <li>■ Cost to have the incorrect product?</li> </ul>	<ul style="list-style-type: none"> <li>■ How long has the problem existed?</li> <li>■ Criteria to determine if Hi-Vis protection is still serving purpose?</li> <li>■ When do they want to implement a new solution?</li> </ul>

## ASSESSING THE THREE P'S

### PROTECTION

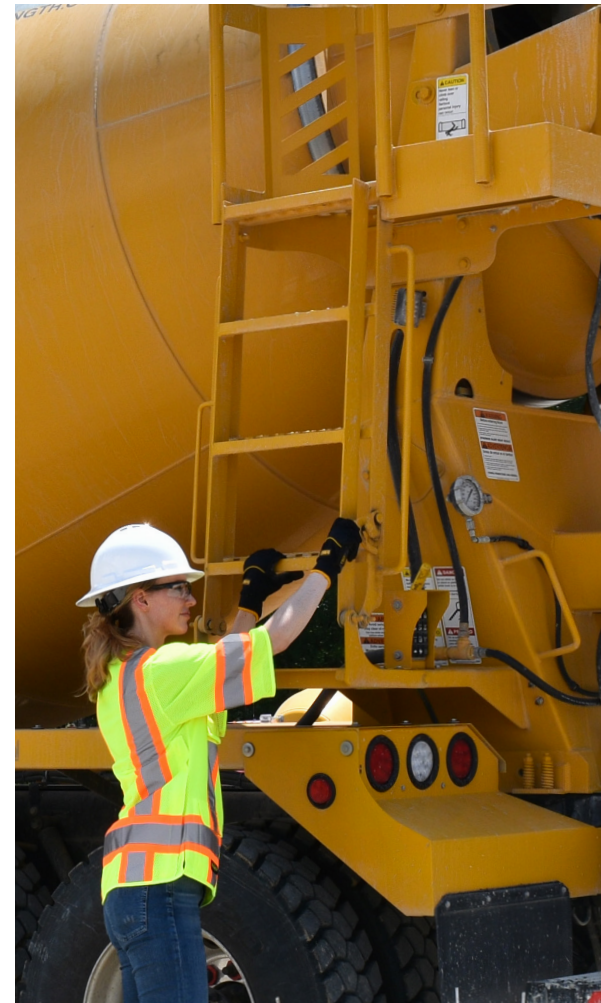
- Is there currently a site or location ANSI-107 requirement?
- Is there a current detailed Hazard Analysis?
- Have there been any Struck By incidents?
- What are the primary hazards contributing to the importance of Being Visible?
- Will Hi-Vis Orange or Yellow be more conspicuous?

### PURPOSE

- Do employees use Tools, Phone, Tablet, etc. while wearing Hi-Vis protection?
- Does Hi-Vis protection designate a worker's role?
- Can dropped objects become a hazard that needs to be addressed?
- Are credentials or ID required to be visible?
- Will radio or other communication be required?

### PERFORMANCE

- What is primary reason Hi-Vis protection is replaced?
- How long does current Hi-Vis protection currently last?
- Are environmental factors a concern?



### **ARE YOU CONFIDENT YOUR CURRENT HI-VIS PROTECTION MAKES YOUR EMPLOYEES AS VISIBLE AS POSSIBLE:**

Would it be beneficial to perform a site Walk Through to identify opportunities to improve Protection, Purpose, or Performance of your current Hi-Vis protection?