

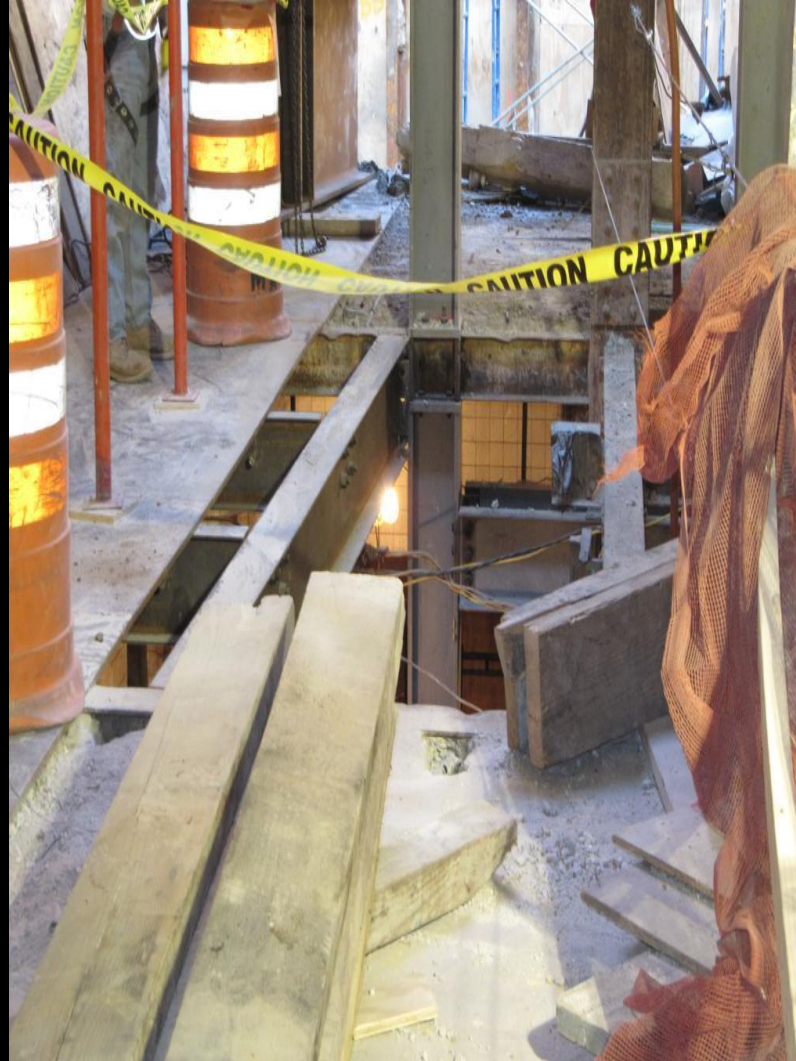
# **2015-FALL PROTECTION**

**Why Do We Have Rules & Training?**

**Danny Callies, Safety Director  
G&R Mineral Services, Inc.**



# DO WE NEED FALL PROTECTION RULES & TRAINING?





# WHAT IS WRONG WITH THESE PICTURES ?





# OSHA SEC. 5 DUTIES

## “GENERAL DUTIES CLAUSE”

### (a) Each employer

(1) Shall furnish to each of his (her) employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his (her) employees.

(2) Shall comply with occupational safety and health standards promulgated under this Act.

***(b) Each EMPLOYEE shall comply with occupational safety and health standards and ALL RULES, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.***

## THERE'S NO EXCUSE FOR NOT USING FALL PROTECTION



LABORERS' HEALTH & SAFETY FUND OF NORTH AMERICA

# CONSTRUCTION WORKER KILLED BY FALL AT MERCEDES-BENZ PLANT IN ALABAMA **JULY 24, 2015**

A construction worker was killed in a fall at the Mercedes-Benz's Vance, Alabama plant. Photo Credit: ABC 33/40

A worker on a crew building a new facility at an Alabama Mercedes-Benz plant fell to his death on Wednesday.

53-year-old Jeffery G. Merchant was working atop the metal roof of a new Hazmat building under construction at the automaker's plant in Vance near Birmingham.

The worker fell about 25 feet onto a concrete slab. He was pronounced dead at the scene.

According to OSHA, falls are the leading cause of death in the construction industry, with hundreds of workers dying each year and thousands more facing serious injuries.

The cause of the fall is still under investigation; the worker was wearing proper fall protection equipment but was not tied-off.





## **MSHA.... "BEST PRACTICES"**

- (1.) ESTABLISH AND DISCUSS SAFE WORK PROCEDURES.**
- (2.) IDENTIFY AND CONTROL ALL HAZARDS.**
- (3.) TRAIN ALL PERSONS TO RECOGNIZE AND UNDERSTAND SAFE JOB PROCEDURES BEFORE BEGINNING WORK.**





# MSHA FATALGRAMS- FALLS OF PERSON

- 32 year-old plant operator was changing a screen in the plant when he fell 56 feet to the ground below. He was standing on a steel rail that had been placed between the mid-rail of the **protective rail** surrounding the screen deck work platform and the screen structure.
- Train all persons to recognize and understand safe job procedures, including the purpose of fall protection barriers and the proper use of fall protection.
- 46 year-old contractor welder was fatally injured at a crush stone operation. He was preparing to weld on an overhead ventilation duct. The victim was using a ladder to access the duct when he fell over a handrail approximately 45 feet to the ground
- Always use fall protection when working where a fall hazard exists.
- Always face the ladder when climbing or working from a ladder.
- Do not lean to reach items while standing on a ladder.
- Always maintain three points of contact with the ladder when climbing.
- Position ladders to ensure their stability and to eliminate trip hazards.



# MSHA FATALGRAMS – FALLS OF PERSON

- 66 year-old contract truck driver was inside a loading rack closing the hatch on top of the bulk tanker truck, when the victim raised the rack to access the hatch, he fell between the rack and rounded side of the truck and fell to the ground,
- Establish traffic patterns to ensure safe alignment of vehicles with access. Always use fall protection when working where a fall hazard exists.
- Identify and control all hazards associated with the work to be performed and use methods to properly protect persons.
- 54 year-old truck driver went to a storage building to get some wooden planks. He climbed a stack of loaded pallets to get to the planks that were near the rafters and fell 8 feet to the ground below. The next day two coworkers arrived at the mine and found the victim.
- Do not assign a person to work alone in areas where hazardous conditions exist that would endanger his or her safety.
- Account for all persons at the end of each shift.
- Develop a plan to store supplies and other items in an accessible way to ensure ease of retrieval and transportation.





# MSHA FATALGRAMS

## FALL OF PERSON

- 46 year-old plant mechanic fell 16 feet from an elevated walkway of a conveyor to the ground below. The victim and a coworker had been bolting a snub pulley in position. The coworker was positioned on a walkway on the other side of the belt.
- Train all persons to recognize and understand safe job procedures, including the proper use of fall protection.
- Install railing or cables when persons are required to work or travel near the edge of a structure.
- 34 year-old contract laborer was killed when he fell through a 6 ft. X 8 ft. hole that was partially covered with 2" X 4" boards and  $\frac{3}{4}$ " thick plywood. He fell into a chute landing on a belt conveyor 30 feet below. The victim was assigned fire watch duties on a welding/cutting operation that was taking place on the floor above him.
- Keep temporary access opening covers secured in place at all times when the opening is not being used.
- Ensure that areas are barricaded or have warning signs posted at all approaches if hazards exist that are not immediately obvious.
- Always use fall protection when working where a fall hazard exists.





# MSHA FATALGRAMS

## FALLS OF PERSON

- 34-year old contract laborer was killed at a cement operation when attempting to access an elevator in the finish mill. When the victim opened the elevator doors on the 4<sup>th</sup> floor landing, he stepped into the elevator shaft and fell 51 feet.
- Immediately report any elevator problems to management.
- Ensure that any problems affecting the safety of an elevator are repaired promptly.
- Ensure that elevator doors will not open unless an elevator car is at the floor landing.
- 52-year old electrician was standing on a step ladder pulling cable in a cable tray. The mounting bracket for the tray broke loose from the wall and the tray struck the step ladder. The victim fell 5 ft. from the ladder, striking his head on the concrete floor.
- Always be aware of any hazards that may be present.
- Ensure that the correct anchors are used and that the supporting structures are adequate when installing a cable tray.





# FALL PROTECTION PLAN & POLICIES

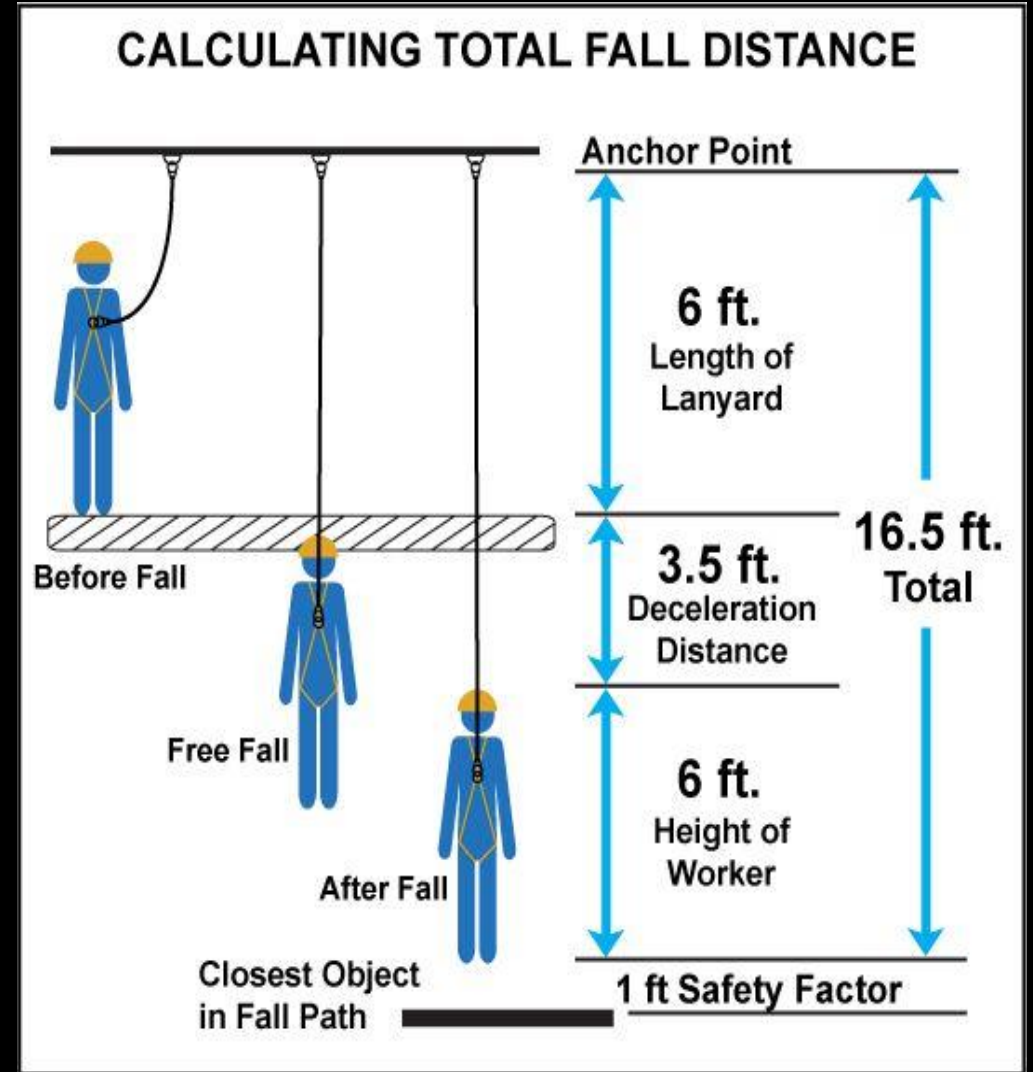
## Six Foot Rule



## Anchor Points



## Total Fall Distance





# FALL PROTECTION EQUIPMENT

## Lanyards

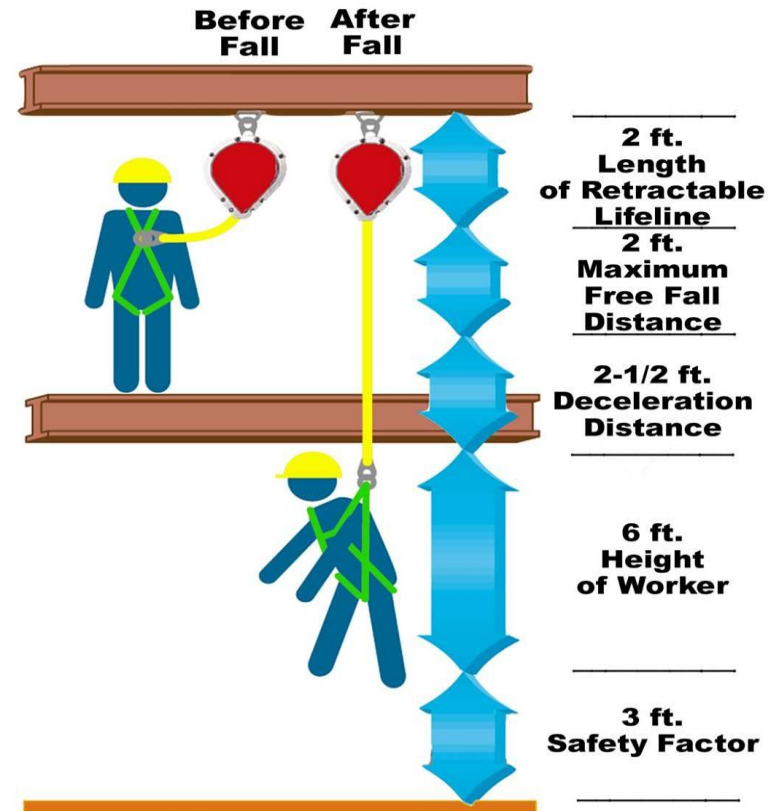


## Retractable



## Fall Clearance for Retractable

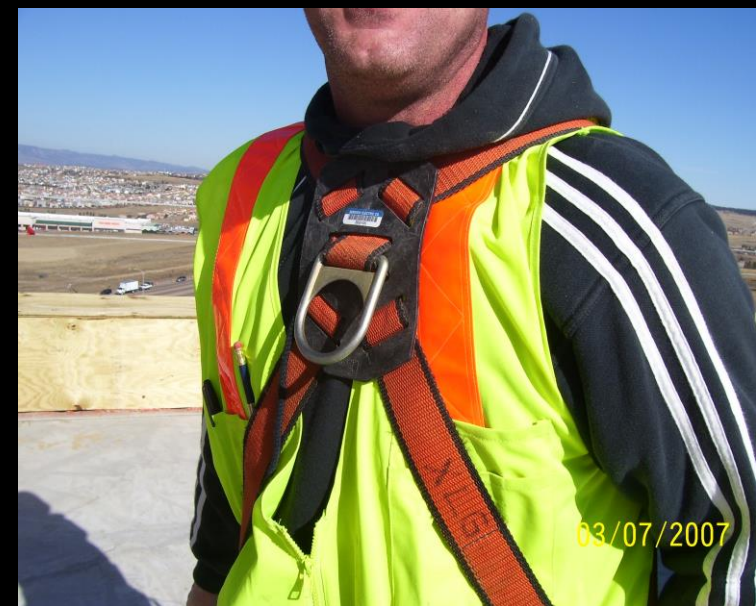
### Fall Clearance Calculation (for Retractable Lifeline)



**Total: 15-1/2 ft. from Anchor Point**



# FALL PROTECTION INSPECTION





# HIERARCHY OF FALL PROTECTION

The Hierarchy of Fall Protection is the preferred order of control for fall hazards. As the Hierarchy progresses, so does the risk. Proper fall protection training and a rescue plan become mandatory.

## 1 HAZARD ELIMINATION

Preferred solution is to eliminate exposure to the fall hazard.

## 2 PASSIVE FALL PROTECTION

Physical barriers, like guardrails around unprotected edges and covers over holes.

## 3 FALL RESTRAINT SYSTEMS

Use personal protective equipment to restrict the worker's range of movement so they cannot fall.

## 4 FALL ARREST SYSTEMS

Designed for situations where exposure to a fall is not preventable. A fall is arrested within acceptable force and clearance margins.

## 5 ADMINISTRATIVE CONTROLS

Least preferred solution is work practices or procedures that increase a worker's awareness of a fall hazard.

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# FALL PROTECTION RESCUE PLAN







# FALL PROTECTION FOR TOOLS







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