# Distribution Services Safety Training Programs

Presented by

Catherine Simonsen Supervisor, Safety Operations Distribution Services





# EH&S Regulations (US only)



# Injury & Illness Prevention Program (IIPP)

- SB 198 established the requirements for the IIPP. The purpose was to establish an accident prevention program.
- Parallels the Hazard Communication Standard.
- Mandates safe practices, employee training, inspections to identify and correct unsafe conditions, and the creation of a safety committee.
- There is no comparable Federal standard.









#### IIPP The Umbrella Program (other regulations & training)

Hazard Communication Hearing Conservation Lockout Tagout Confined Space Trenching & Shoring Vehicle Safety Crane Operations Forklift Safety Fall Protection Substation Entry Ergonomics Incident Investigations Heat Illness Prevention Respirators Personal Protective Equipment (PPE) Emergency Action Plans Bloodborne Pathogens Electrical Arc Protection Safety Observations Dog Bite Prevention

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![](_page_5_Picture_0.jpeg)

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://smudinet/people/health-safety/safety-operations/EHS%20Standards/Forms/AllItems.aspx	
3-07 Health and Safety Ombudsman Policy 2-03-03	Communications
3-07 PR Health and Safety Ombudsman Procedure 2-03-03	Communications
4-01 Safety Observation and Reporting 7-31-07	Hazard Recognition
4-02 Housekeeping	Hazard Recognition
5-01 Fire Prevention Plan Policy	Hazard Control
5-02 Vehicle Safety 10-09-00	Hazard Control
5-03 Musculo Skeletal Disorders 2-12-01	Hazard Control
5-04 Hearing Conservation	Hazard Control
5-05 Personal Protective Equipment	Hazard Control
5-06 Respitory Protective Program	Hazard Control
5-07 Lock Out Tag Out Program 1-02-03	Hazard Control
5-07 PR Lock Out Tag Out Procedure 1-02-03	Hazard Control
5-08 Confined Space Entry Program 3-13-02	Hazard Control
5-08 PR Confined Space Entry Procedure 3-13-02	Hazard Control
5-11 Occupational Prescription Eyewear Program 7-10-06	Hazard Control
5-13 Reduction Electrcial Arc Flame Exposure 1-22-01	Hazard Control
5-14 Bloodborne Pathogens	Hazard Control
5-16 Fall Protection 7-17-08	Hazard Control
5-17 IIPP Workplace Security and Violence Prevention	Hazard Control
5-18 Special Motorized Equipment 8-18-09	Hazard Control
5-19 Heat Illness Prevention 11-13-06	Hazard Control
5-20 Substation Entry 7-22-09	Hazard Control
5-21 Dog Bite Prevention 7-22-09	Hazard Control
6-01 Incident Reporting and Investigations	Injury and Illness Prevention
6-02 Medical Practice Electric Shock 9-01-97	Injury and Illness Prevention
6-03 Major Incident Investigations 1-07-09	Injury and Illness Prevention
7-01 Health and Safety Training 9-01-97	Training
8-01 Injury and Illness Record Keeping 12-08-03	Comoral Cofaty
8-01 PR Injury and Illness Record Keeping Procedure 12-03-03	General Salety F
8-03 Enforcement District IIPP 7-01-93	Compliance
8-04 Contractor Safety 3-01-00	Compliance
8-06 Cal OSHA BOI Inspections and Investigation 5-01-98	Compliance
9-01 General Safety Rules 12-01-96	General Safety Policy

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# **Duty to Have Fall Protection**

- Fall protection is required for employees whenever there is an exposure of a fall six (6) feet or more from:
  - Walking/working surfaces
  - Unprotected sides and edges
  - Wall openings
  - Form-work
  - Reinforced steel
  - Excavations

![](_page_7_Picture_8.jpeg)

![](_page_7_Picture_9.jpeg)

# Fall Protection – Complex regulatory scheme

Fall protection requirements are often a function of the task and craft.

- Article 2, Section 1504: Definitions
- \* Article 7, Section 1548: Bins, Bunkers & Hoppers
- \* Article 12, Section 1600: Pile Driving
- \* Article 14, Section, 1605.19: Landings & Runways
- Article 16, Section 1621: Railings & Toeboards
- \* Article 24, Section 1669, 1670,1671: Safety Belts & Nets
- Article 28, 1712 & 1716: Erection & Construction
- Article 30, 1730: Roofing Operations

![](_page_8_Picture_10.jpeg)

![](_page_8_Picture_11.jpeg)

![](_page_8_Picture_12.jpeg)

**Fall Protection** 

To prevent employees from falling to the next lower level. Systems include:

- Personal Fall Arrest
- Guardrails
- Safety Nets
- Warning Lines

![](_page_9_Picture_6.jpeg)

![](_page_9_Picture_7.jpeg)

![](_page_10_Figure_0.jpeg)

# **Positioning Device**

A body belt or body harness system rigged to allow an employee to be supported on an elevated surface, such as a wall, and work with both hands free while leaning.

![](_page_11_Figure_2.jpeg)

![](_page_11_Figure_3.jpeg)

![](_page_11_Picture_4.jpeg)

![](_page_11_Picture_5.jpeg)

# Exemptions

- Erection/dismantling or working from scaffolds
- Steel erection work
- Working from some tunneling equipment
- Working from some cranes and derricks
- Work from ladders

![](_page_12_Picture_6.jpeg)

![](_page_12_Picture_7.jpeg)

![](_page_12_Picture_8.jpeg)

# Personal Fall Arrest System

- Consists of an anchorage point, harness and a connector between the two (lanyard)
  - Anchoring point must be able to hold 5000#
  - D-rings & snaphooks: ANSI strength criteria, and double locking
  - Must be installed by a qualified person
  - The system does not allow a free

fall more than 6 feet

![](_page_13_Picture_7.jpeg)

![](_page_13_Picture_8.jpeg)

# Fall arrest lanyards

- Are to be inspected prior to use.
- Are only to be used for employee safeguarding; independent and free of interference; and not as a positioning devices.
- ANSI tagged with decelerating device
- Shall not allow free fall greater than 6 feet.

![](_page_14_Picture_5.jpeg)

![](_page_14_Picture_6.jpeg)

![](_page_14_Picture_7.jpeg)

# Fall arrest lanyards cont.'

- Cannot be tied or clipped together to make a longer lanyard.
- Cannot be tied in a knot to make shorter
- Removed from service after being shock-loaded (evaluated by manufacturer or tagged out).

![](_page_15_Picture_4.jpeg)

![](_page_15_Picture_5.jpeg)

#### FALL PROTECTION GUIDE

A method must be chosen for each exposure

LEGEND

P = Preferred or A = Alternative (One option above must be selected)

M = Mandatory (No alternatives by Regulation or Policy)

FALL EXPOSURE SYSTEM TYPE			EQUIPMENT TYPE								
	ENGR CONTROL	POSITION	FALL RESTRAINT	FALL ARREST	GUARD Rail or Cage	Saddle w/leg	BELT w/restraint straps	HARNESS w/restraint line	HARNESS LANYARD w/deceleration	ROPE GRAB	MONITOR
Switch Yard & Substation equip. $\geq 6'$ (i.e., transformers, OCB, etc.)			Р	A				Р	A		*7
Tree Climbing		М				М	101111		E		
Aerial Lift Device <sup>1</sup>			Р	Α			Α	Р	Α		
Bucket Truck (Single)			Р	A			Р		A		
Bucket Truck (Double)				м					М		
Mobile Platforms (Order Picker)			Р	Α				Р	A		1000
Roof (Residential) >4:12 pitch			Ρ					Р			* 7
Roof (Residential) >7:12 pitch			Р	Α				Р	A		1.110,83
Scaffolding <sup>2</sup>			Р	Α				Р	A		
Fixed Ladders >20'	P <sup>3</sup>	A <sup>3</sup>			Р		1.1.1			А	1.1.1.1.1.1.1
Excavations/Open Pit <sup>4</sup>	Р				Р						
Towers (Tel Com)			М					М			М
Towers (Transmission)			Ρ	A			Р		A		
Slopes <sup>5</sup>									Part of the		1.
Pole Climbing <sup>6</sup>											

<sup>1</sup> Aerial Lift Devices (examples: JLG, scissor lifts, ETC.)

<sup>2</sup> Fall protection is required if a mid rail or top rail is removed.

<sup>3</sup> Older installations without cages require fall protection when working from a fixed ladder.

<sup>4</sup> If crossing over excavations is necessary and the trench is over 30 inches wide and 6 feet deep or greater, guardrails are required.

<sup>5</sup> High angle slope work is controlled through rope access practices rather than fall protection practices.

<sup>6</sup> For fall protection requirements specific to pole climbing refer to DS Safety Manual 5-13 Fall protection section 6.1.2 General

<sup>7</sup> A dedicated monitor should not be used in lieu of other fall protection equipment unless there is no other practical approach and contact has been made with EH&S

![](_page_17_Picture_0.jpeg)

# **Examples of Pole Top Rescue Training**

- Pole and Aerial Device Rescue (Rope Blocks)
- Pole and Aerial Device Rescue (Dump)
- Pole and Aerial Device Rescue (Pole Top)
- Pole and Aerial Device Rescue (Screw driver)
- Pole and Aerial Device Rescue Procedure (Pole Top-BT)

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![](_page_18_Picture_7.jpeg)

### Pole Top Cross Arm Method

![](_page_19_Picture_1.jpeg)

![](_page_19_Picture_2.jpeg)

![](_page_19_Picture_3.jpeg)

Rescuer checks for hazards that will Compromise the safety of the rescuer

# Lockout / Tagout - LOTO (The Control of Hazardous Energy)

#### **Types:**

- Electrical
- Chemical
- Hydraulic
- Pneumatic
- Thermal
- Mechanical

#### Requires Annual Training & Procedure Reviews

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# Safety Operations Home - Microsoft Internet Explorer File Edit View Favorites Tools Help Safety Operations Home - Microsoft Internet Explorer File Edit View Favorites Tools Help Safety Operations Home - Microsoft Internet Explorer File Edit View Favorites Tools Help Safety Operations Home - Microsoft Internet Explorer Safety Operations Home - Microsoft Internet Explorer Safety Operations Home - Microsoft Internet Explorer Safety Operations Help Safety Operations Help

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SCORCH

SITS

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#### Safety Operations

#### Safety Operations Mission

Safety Operations provides safety consultation, services, and resources to District functions to assist management in fulfilling Injury and Illness Prevention Program requirements to provide a safe work environment and to comply with regulatory and District safety standard requirements. Staff within Safety Operations is assigned to provide direct support to individual Business Units and departments.

Safety Operations functions include risk identification and reduction strategies to assist management. Staff provides incident investigation support, behavior based safety program (SCORCH) coordination, regulatory review, training, safety meeting content, job hazard analyses, and reviews of work procedures, tools, equipment, and materials. As a team, staff provides continued development of District-wide safety standards, and maintains records on accidents and safety performance. These functions support the framework of the District's Hazard Reduction, Accountability, Behaviors, Indicators, Training (HABITs) program.

![](_page_21_Picture_7.jpeg)

- Request for Safety Glasses (See District SH&E Policy 5-11)
- Safety Recommendations (See District SH&E Policy 3-04)
- Vaccination Declination (Bloodborne Pathogens)
- Hot Work Permit
- Confined Space Entry
- Field Inspection
- Vehicle Inspection
- Fall Protection Guide

![](_page_21_Picture_16.jpeg)

#### Health & Safety Standards

- 1-01 Injury and Illness Prevention Program (IIPP)
- 3-01 Safety Meetings
- 5-02 Vehicle Safety
- 6-01 Incident Reporting and Investigation
- To view all Health & Safety Standards click here

#### Links

- DS Safety
- CS Safety
- Training Management System (TMS)
- American Society of Safety Engineers
- American Industrial Hygiene Association
- Cal OSHA
- Cal OSHA Publications
- wational Safety Council
- MSDS Instructions

#### Safety Operations Contacts

Contact name	Responsibility		
Catherine Simonsen	Supervisor		
Bret Gwaltney	UARP/Energy Supply		
Steven Hood	HABITs/SD-6 Metrics/Training Program Development		
Meredith Hudson	Sr. Office Specialist		
Larry Pierce	DS/Driver Safety Program		
Kevin Melton	Workforce & Workplace/General Svcs/Business Technology/Telecom/RS		
Carl Whitley	SCORCH Coordinator		
Health and Wellness   Integrated Disability Management  Vorkers Compensation  Family & Medical Leave Act (FMLA)  Short & Long Term Disability  Ergonomics  Wellness Program  Fitness Center Membership and Services  Safety Operations Safety Videos Checkout Process SCORCH RINCON SCORCH Pictures			

## **Personal Protective Equipment (PPE)**

#### **Regulations:**

Title 8, California Code of Regulations Sections:

**\* 3380-3390** 

(General Industry Safety Orders)

![](_page_22_Picture_5.jpeg)

![](_page_22_Picture_6.jpeg)

## **Hazard Examples**

- Chemicals
- Electrical
- Flying Particles
- Harmful Dust- Inhalation Hazards
- Heat/Cold
- Impact- Falling Objects
- Motion
- Noise
- Sharp Objects

![](_page_23_Picture_10.jpeg)

![](_page_23_Picture_11.jpeg)

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### **Before Using PPE**

#### Engineering Controls

- Example: Dust Collection
   System in Carpenter Shop
- Administrative Controls
  - Example: Task Rotation (Time)
- Work Practices
  - Example: Minimize
     Number of Employees
     Completing Specialized
     Tasks

![](_page_24_Picture_8.jpeg)

![](_page_24_Picture_9.jpeg)

![](_page_24_Picture_10.jpeg)

#### **PPE Examples**

\* FR Clothing
\* Gloves
\* Goggles
\* Safety Glasses
\* Hard Hats
\* Respirators
\* Shoes

![](_page_25_Picture_2.jpeg)

![](_page_25_Picture_3.jpeg)

![](_page_25_Picture_4.jpeg)

### **Everyone's Responsibility**

- Communication:
- Identify & Control Health Hazards through various controls, if possible
  - Engineering
  - Administrative
  - Work Practice
- Identify & Provide Appropriate PPE
- Train Employee's in the Use & Care of PPE
- Replace worn or damaged PPE
- Review, Update, & Evaluate effectiveness of PPE
   Program

![](_page_26_Picture_10.jpeg)

![](_page_26_Picture_11.jpeg)

![](_page_26_Picture_12.jpeg)

## End User's Responsibility

#### Communication:

- Advise of Previously Unrecognized Hazards
- Participate in Training Sessions on PPE
- Wear PPE Properly
- Care for & maintain PPE
- Go to Tool Room of need to repair or replace PPE- *immediately*

![](_page_27_Picture_7.jpeg)

![](_page_27_Picture_8.jpeg)

#### **PPE Selection:**

#### ANSI-

- American National Standards Institute
- Eye and Face Protection Z87.1-2003
- Foot Protection F2412-2005
- Head Protection Z89.1-2003
  - Hand Protection- No ANSI Standard
    - OSHA recommends obtain appropriate type for tasks being performed

![](_page_28_Picture_8.jpeg)

![](_page_28_Picture_9.jpeg)

#### **Requirements:**

Protective equipment shall be distinctly marked so as to facilitate the identification of the manufacturer.

Employer shall assure the employee is instructed and uses protective equipment in accordance with the manufacturer's instructions.

![](_page_29_Picture_3.jpeg)

![](_page_29_Picture_4.jpeg)

Employer shall assure that all PPE, whether employer-provided or employee-provided, complies with the applicable Title 8 standards for the equipment.

The employer shall assure this equipment is maintained in a safe, sanitary condition.

![](_page_30_Picture_2.jpeg)

![](_page_30_Picture_3.jpeg)

Protectors shall be of such design, fit and durability as to provide adequate protection against the hazards for which they are designed.

 They shall be reasonably comfortable and shall not unduly encumber the employee's movements necessary to perform his work.

![](_page_31_Picture_2.jpeg)

![](_page_31_Picture_3.jpeg)

# FR Clothing (NFPA 70E)

- Significantly reduces burn injuries (2<sup>nd</sup> degree)
  - Increase chance of survival if caught in flash fire or electric arc
- Provides Wearer escape time
- Replacement is dependent on use
  - # 9-18 months, some up to 5 yrs
  - Beyond repair-holes which compromise protection; contaminated; thread-bare

![](_page_32_Picture_7.jpeg)

![](_page_32_Picture_8.jpeg)

![](_page_33_Picture_0.jpeg)

#### §3382 Eye and Face Protection

- Employees working in location where there is a risk of receiving eye injuries such as punctures, abrasions, contusions, or burns as a result of contact with flying particles, hazardous substances, projections or injurious light rays which are inherent in the work or environment, shall be safeguarded by means of face or eye protection.
  - Suitable screens or shields isolating hazardous exposures may be considered adequate safeguarding for nearby employees.

![](_page_34_Picture_3.jpeg)

![](_page_34_Picture_4.jpeg)

Where eye protection is required and the employee requires vision correction, such eye protection shall be provided as follows:

- Safety spectacles with suitable corrected lenses,
- Safety goggles designed to fit over spectacles
- Protective goggles with corrective lenses mounted behind the protective lenses.

![](_page_35_Picture_4.jpeg)

![](_page_35_Picture_5.jpeg)

![](_page_35_Picture_6.jpeg)

Wearing of contact lens is prohibited in working environments having harmful exposure to materials or light flashes, except when special precautionary procedures, which are medically approved, have been established for the protection of the exposed employee.

![](_page_36_Picture_1.jpeg)

![](_page_36_Picture_2.jpeg)

#### Eye & Face Protect. Z87.1-2003

- Examples
  - Glasses, Goggles, Face Shields, Welding-Helmets, Full Face-Piece Respirators
    - Prescription Eye Safety Protection is available
- Performance Testing
  - High Impact
  - Low Impact
- Replace when:
  - Cracked Broken frames or lenses
  - Scratches which minimize visibility

![](_page_37_Picture_10.jpeg)

![](_page_37_Picture_11.jpeg)

#### §3383 Body Protection

- Body protection may be required for employees whose work exposes parts of their body, not otherwise protected as required by other orders in this article, to hazardous or flying substances or objects.
- Clothing appropriate for the work being done shall be worn. Loose sleeves, tails, ties, lapels, cuffs, or other loose clothing which can be entangled in moving machinery shall not be worn.
- Clothing saturated or impregnated with flammable liquids, corrosive substances, irritants, or oxidizing agents shall be removed and shall not be worn until properly cleaned.

![](_page_38_Picture_4.jpeg)

![](_page_38_Picture_5.jpeg)

#### § 3384 Hand Protection

- Hand protection shall be required for employees whose work involves unusual and excessive exposure of hands to cuts, burns, harmful physical or chemical agents or radioactive materials which are encountered and capable of causing injury or impairments.
- NOTE: Wrist watches, rings, or other jewelry should not be worn while working with or around machinery with moving parts in which such objects may be caught, or around electrically energized equipment.

![](_page_39_Picture_3.jpeg)

![](_page_39_Picture_4.jpeg)

#### **Hand Protection**

- No ANSI Standard specifically for hand protection
- OSHA recommends obtain for tasks being performed

![](_page_40_Picture_3.jpeg)

![](_page_40_Picture_4.jpeg)

#### **§3381 Head Protection**

- Employees working in locations where there is a risk of receiving head injuries from flying or falling objects and/or electric shock and burns shall wear approved head protection.
- When head protection is required, the employer shall ensure that approved protective helmets are selected and used in accordance with their demonstrated resistance to impact and electrical hazards.

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![](_page_41_Picture_4.jpeg)

![](_page_41_Picture_5.jpeg)

#### Head Protection Z89.1-2003

- After October 30, 2004, shall comply with American National Standards Institute (ANSI) Z89.1-2003 Industrial Head Protection
- Class A impact & penetration resistance along with limited voltage protection (up to 2,200 volts).
- Class B Highest level of protection against electrical hazards, with protection up to 20,000 volts. Also protect from impact & penetration hazards by flying/falling objects.
- Class C, E, or G -No risk of contact w/electrical conductors; Protection only to reduce injury from flying/falling objects.

![](_page_42_Picture_5.jpeg)

![](_page_42_Picture_6.jpeg)

#### What to look for:

- Perforation, cracking, or deformity of the brim or shell
- Indication of exposure of the brim or shell to heat, chemicals or ultraviolet light and other radiation (in addition to a loss of surface gloss, such signs include chalking or flaking)

 Always replace a hard hat if it sustains an impact, even if damage is not noticeable

![](_page_43_Picture_5.jpeg)

![](_page_43_Picture_6.jpeg)

- Each approved protective helmet shall bear the original marking required by the ANSI standard under which it was approved.
  - At a minimum, the marking shall identify the manufacturer, ANSI designated standard number and date, and ANSI designated class of helmet.
- Where there is a risk of injury from hair entanglements in moving parts of machinery, combustibles or toxic contaminants, employees shall confine their hair to eliminate the hazard.

![](_page_44_Picture_3.jpeg)

![](_page_44_Picture_4.jpeg)

![](_page_44_Picture_5.jpeg)

#### § 3385 Foot Protection

Footwear which is defective or inappropriate to the extent that its ordinary use creates the possibility of foot injuries shall not be worn.

![](_page_45_Picture_2.jpeg)

![](_page_45_Picture_3.jpeg)

#### Foot Protection, Continued

# Shoes May Become Compromised if:

- They become wet
- The soles become worn through
- Metal particles
   become embedded
   in the sole or heel
- Workers touch
   conductive or
   grounded items

![](_page_46_Picture_6.jpeg)

![](_page_46_Picture_7.jpeg)

![](_page_46_Picture_8.jpeg)

![](_page_46_Picture_9.jpeg)

# **Donning Equipment**

- Inspect before each use
- Maintain in operable condition
  - Adhere to Manufacturer's Instructions
  - No Modifications
  - Clean
- Ensure Proper Fit
  - Stay In Place
  - Wear Properly
- Replace as Needed

#### \* KNOW IT'S LIMITATIONS!

![](_page_47_Picture_11.jpeg)

![](_page_47_Picture_12.jpeg)