



# **Hazards**

## **Identifying, Evaluating, & Correcting in a Timely Manner**

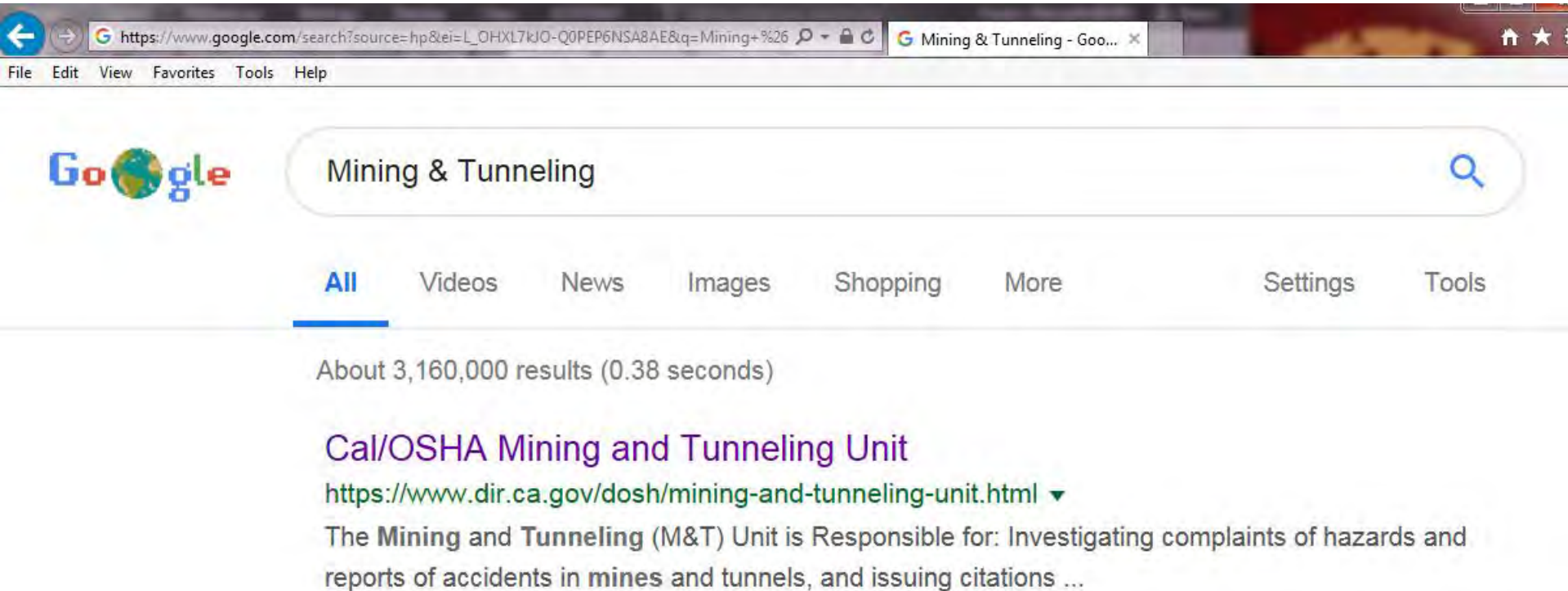
Jeff Wallace, Acting SSE / DM

# Disclaimer

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This presentation does not necessarily reflect the views or policies of Cal-OSHA, nor does mention of trade names, commercial products, or organizations imply endorsement by the State of California.

# Where to find us on the internet



A screenshot of a web browser showing a Google search for "Mining & Tunneling". The browser's address bar displays the URL: [https://www.google.com/search?source=hp&ei=L\\_OHXL7kJO-Q0PEP6NSA8AE&q=Mining+%26](https://www.google.com/search?source=hp&ei=L_OHXL7kJO-Q0PEP6NSA8AE&q=Mining+%26). The search bar contains the text "Mining & Tunneling". Below the search bar, the "All" tab is selected, and the results show "About 3,160,000 results (0.38 seconds)". The top result is titled "Cal/OSHA Mining and Tunneling Unit" in purple text, with a green URL: <https://www.dir.ca.gov/dosh/mining-and-tunneling-unit.html>. A brief description follows: "The Mining and Tunneling (M&T) Unit is Responsible for: Investigating complaints of hazards and reports of accidents in mines and tunnels, and issuing citations ...".

Google

Mining & Tunneling

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About 3,160,000 results (0.38 seconds)

**Cal/OSHA Mining and Tunneling Unit**

<https://www.dir.ca.gov/dosh/mining-and-tunneling-unit.html>

The Mining and Tunneling (M&T) Unit is Responsible for: Investigating complaints of hazards and reports of accidents in mines and tunnels, and issuing citations ...

Cal/OSHA Mining and Tunneling (M&T) Unit

## Mining and Tunneling (M&T) Unit

### The Mining and Tunneling (M&T) Unit is Responsible for:

- Investigating complaints of hazards and reports of accidents in mines and tunnels, and issuing citations
- Conducting pre-job safety conferences and issuing permits prior to any initial underground mining or tunneling operation
- Performing periodic inspections of
  - Tunnels under construction
  - Underground mines
  - Surface mines and quarries
- Offering safety classes for mine operators and employees

## Mine Safety Training

Mine safety training provides New Miner, Newly Hired Experienced Miner and Annual Refresher Trainings as required by Mine Safety and Health Administration (MSHA) 30 CFR parts 46 and 48.

- For the class schedule visit the [Mine Safety Training](#) page.



All requests, reports and applications must be sent to the

### Cal/OSHA

#### Quick Links

- ▶ [File a workplace safety complaint](#)
- ▶ [Obtain a free consultation](#)
- ▶ [Important Cal/OSHA updates](#)
- ▶ [Public records requests](#)

#### Cal/OSHA Branches & Units

##### Branches

- ▶ [Enforcement](#)
- ▶ [Consultation Services](#)

##### Units

- ▶ [Amusement Ride and Tramway](#)
- ▶ [Asbestos and Carcinogen](#)
- ▶ [Census of Fatal Occupational Injuries](#)

# Frequent Violations

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# §3314. The Control of Hazardous Energy for the Cleaning, Repairing, Servicing, Setting-Up, and Adjusting Operations of Prime Movers, Machinery and Equipment, Including Lockout/Tagout.

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#1 MOST FREQUENT VIOLATION RESULTING IN ALMOST 70 VIOLATIONS IN THE LAST 2 YEARS IN NORTHERN CALIFORNIA ALONE



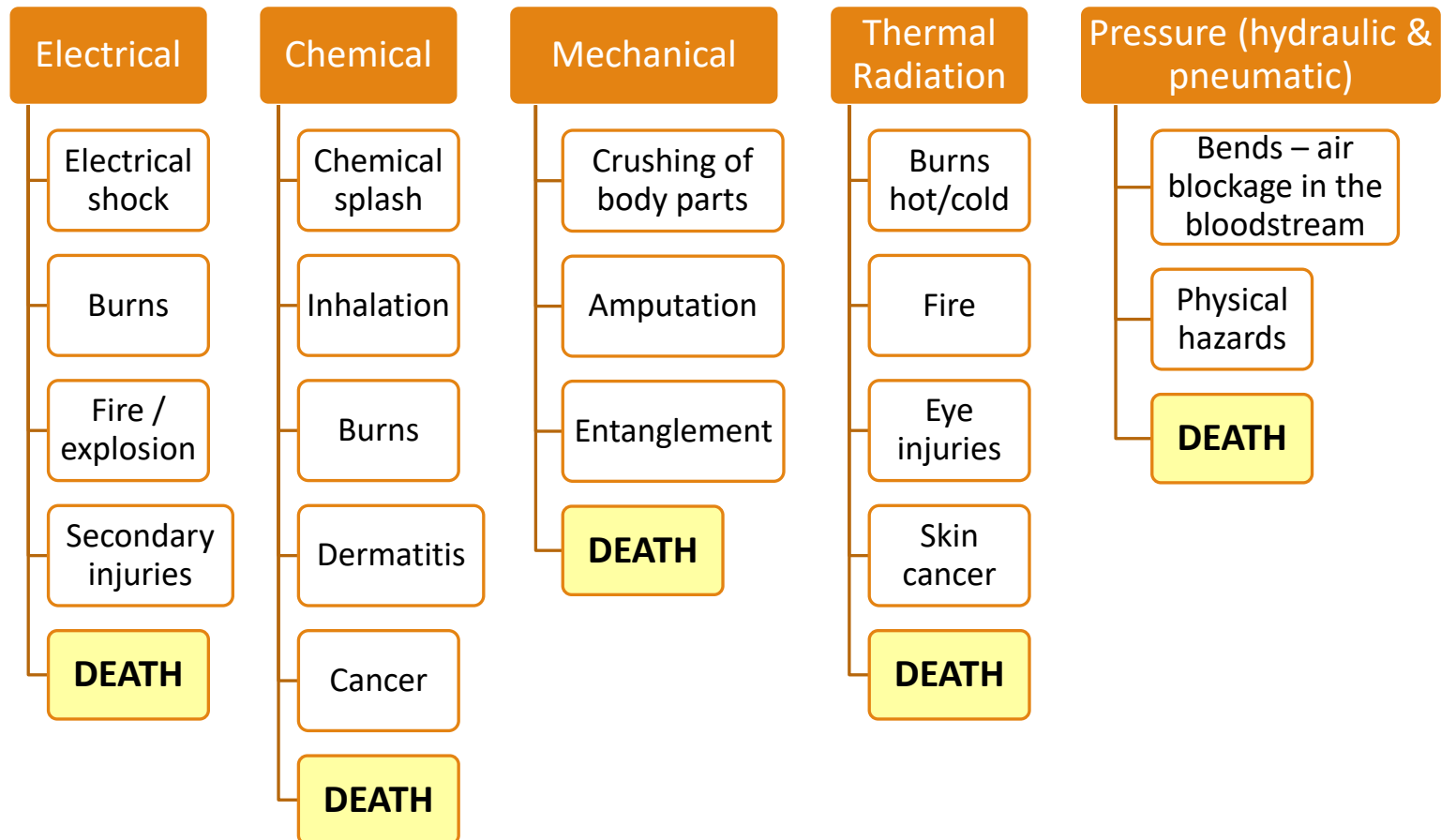
## Serious Citation



### §3314. (d) Repair Work and Setting-Up Operations.

Four (4) employees were observed dismantling an energized crusher without any of three (3) lockable disconnect devices locked or tagged-out.

Injuries resulting from the “FAILURE TO ISOLATE” Hazardous Energy can be Serious or Fatal and may include:





## §3314. The Control of Hazardous Energy for the Cleaning, Repairing, Servicing, Setting-Up, and Adjusting Operations of Prime Movers, Machinery and Equipment, Including Lockout/Tagout.

**(g) Hazardous Energy Control Procedures.** A hazardous energy control *procedure shall be developed and utilized* by the employer *when employees are engaged in the cleaning, repairing, servicing, setting-up or adjusting* of prime movers, machinery and equipment.

- (1) The procedure *shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized* for the control of hazardous energy, and the means to enforce compliance, including but not limited to, the following:
  - (A) A *statement of the intended use* of the procedure; (B) The *procedural steps for shutting down, isolating, blocking and securing* machines or equipment to control hazardous energy; (C) The *procedural steps for the placement, removal and transfer of lockout devices and tagout devices and responsibilities*; and, (D) The *requirements for testing* a machine or equipment, *to determine and verify the effectiveness of lockout devices, tagout devices and other hazardous energy control devices.*
- (2) The employer's hazardous energy control procedures shall be *documented in writing.*
  - (A) The employer's hazardous energy control procedure shall include *separate procedural steps for the safe lockout/tagout of each machine or piece of equipment* affected by the hazardous energy control procedure.

## §3314. The Control of Hazardous Energy for the Cleaning, Repairing, Servicing, Setting-Up, and Adjusting Operations of Prime Movers, Machinery and Equipment, Including Lockout/Tagout.

**(j) Periodic Inspection.** The employer *shall conduct a periodic inspection of the energy control procedure(s) at least annually* to evaluate their continued effectiveness and determine necessity for updating the written procedure(s).

- (1) The periodic inspection *shall be performed by an authorized employee or person other than the one(s) utilizing the hazardous energy control procedures being inspected.*
- (2) Where lockout and/or tagout is used for hazardous energy control, the periodic inspection *shall include a review between the inspector and authorized employees* of their responsibilities under the hazardous energy control procedure being inspected.
- (3) The *employer shall certify that the periodic inspections have been performed.* The certification *shall identify the machine or equipment* on which the hazardous energy control procedure was being utilized, the *date of the inspection*, the *employees included* in the inspection, and the *person performing the inspection.*

## §3314. The Control of Hazardous Energy for the Cleaning, Repairing, Servicing, Setting-Up, and Adjusting Operations of Prime Movers, Machinery and Equipment, Including Lockout/Tagout.

### (I) Training.

- (1) *Authorized employees shall be trained on hazardous energy control procedures and on the hazards related* to performing activities required for cleaning, repairing, servicing, setting-up and adjusting prime movers, machinery and equipment.
- (2) *Each affected employee* shall be *instructed in the purpose and use* of the energy control procedure.
- (3) All *other employees whose work operations may be in an area* where energy control procedures may be utilized, *shall be instructed about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.*
- (4) Such *training shall be documented* as required by Section 3203.

# §3203. Injury and Illness Prevention Program.

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2<sup>ND</sup> MOST FREQUENT VIOLATION RESULTING IN  
OVER 30 VIOLATIONS IN THE LAST 2 YEARS IN  
NORTHERN CALIFORNIA ALONE

## §3203. Injury and Illness Prevention Program.

- (a) Effective July 1, 1991, ***every employer shall establish, implement and maintain an effective*** Injury and Illness Prevention Program (Program). The Program shall be in ***writing*** and, shall, ***at a minimum***:
- (1) ***Identify the person*** or persons ***with authority and responsibility for implementing*** the Program.
  - (2) ***Include a system for ensuring*** that employees comply with safe and healthy work practices. Substantial compliance with this provision ***includes recognition of employees who follow safe and healthful work practices, training*** and retraining programs, ***disciplinary actions***, or any other such means that ensures employee compliance with safe and healthful work practices.
  - (3) ***Include a system for communicating*** with employees in a form readily understandable by all affected employees on matters relating to occupational safety and health, including provisions designed to ***encourage employees to inform*** the employer of hazards at the worksite ***without fear of reprisal***. Substantial compliance with this provision includes meetings, training programs, posting, written communications, a system of anonymous notification by employees about hazards, labor/management safety and health committees, or any other means that ensures communication with employees.

## §3203. Injury and Illness Prevention Program.

[(a) continued]

- (4) *\*Include procedures for Identifying and Evaluating work place hazards* including scheduled *periodic inspections* to identify unsafe conditions and work practices. Inspections *shall be made* to identify and evaluate hazards:
  - (A) When the Program is *first established*;
  - (B) Whenever *new substances, processes, procedures, or equipment* are introduced to the workplace that represent a new occupational safety and health hazard; and
  - (C) Whenever the employer is *made aware of a new or previously unrecognized hazard*.
- (5) *Include a procedure to investigate occupational injury or occupational illness.*
- (6) *\*Include methods and/or procedures for Correcting unsafe or unhealthy conditions, work practices and work procedures In a timely manner based on the severity of the hazard:*
  - (A) *When observed or discovered*; and,
  - (B) When an *imminent hazard exists* which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards.



## §3203. Injury and Illness Prevention Program.

[(a) continued]

(7) ***Provide training and instruction:***

- (A) When the program is ***first established***;
- (B) To ***all new employees***;
- (C) To ***all employees given new job assignments for which training has not previously been received***;
- (D) Whenever ***new substances, processes, procedures or equipment are introduced*** to the workplace and represent a new hazard;
- (E) Whenever the employer is ***made aware of a new or previously unrecognized hazard***; and,
- (F) ***For supervisors*** to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed.

## **“Struck by” Fatality**



### **§3203. Injury and Illness Prevention Program.**

An employee operating a pick-up truck was fatally injured when he was struck by a Caterpillar 992 Wheel Loader. The employee driving the pickup truck pulled in and parked behind the Caterpillar 992 Wheel Loader. As the Wheel Loader reversed, it struck the pick-up truck, causing it to catch fire and trap the victim inside.



## **“Struck by” Fatality**



### **§3203. Injury and Illness Prevention Program.**

An employee was fatally injured when he was struck by an approximate 22.5-foot long, 1.2-Ton Steel Beam while walking out of the tunnel at the same time a slow moving Rail Crane was traveling into the tunnel pushing two loaded flat railcars with the extendable hydraulic boom attachment in the upward position. A collision between the boom and the beam knocked the beam off of its steel support brackets causing the beam to fall and strike the employee upon the head area.



# §3203. Injury and Illness Prevention Program.

This employee is lucky to be alive.

What was another serious citation here?



# Private Roads

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## **§7014. Private Roads.**

(g) (9-22) Mid-axle height berms or guards shall be provided on the outer bank of elevated roadways.

# Thank You

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