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This webinar is being recorded.
Program will begin at 10:00am.
Please introduce yourself in the CHAT window.

Chat

Send a chat message to all participants with your name and organization

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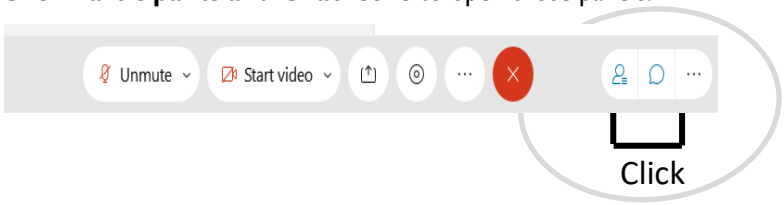
1

Locate this toolbar at the bottom of your WebEx window.

Click Participants and Chat icons to open those panels.



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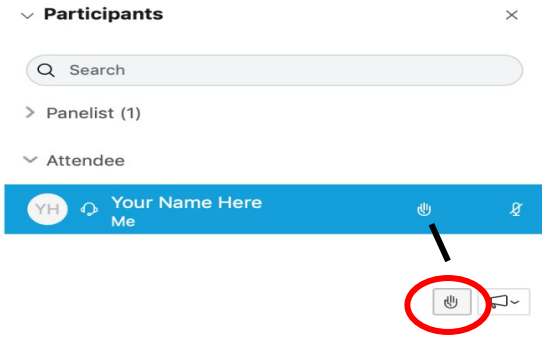
Raise your hand

By clicking the hand icon. Lower it by clicking again.



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For assistance/questions

select TO: ALL PANELISTS

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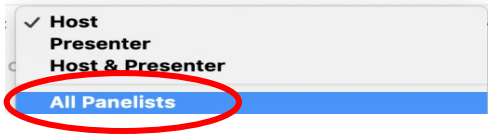

A Discussion of CPUC Rail Safety Oversight, Accident Investigations, Trespassing, and Public Safety

California Public Utilities Commission
October 18, 2023

Business and Community Outreach

Local Government and Community Liaisons

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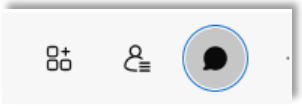
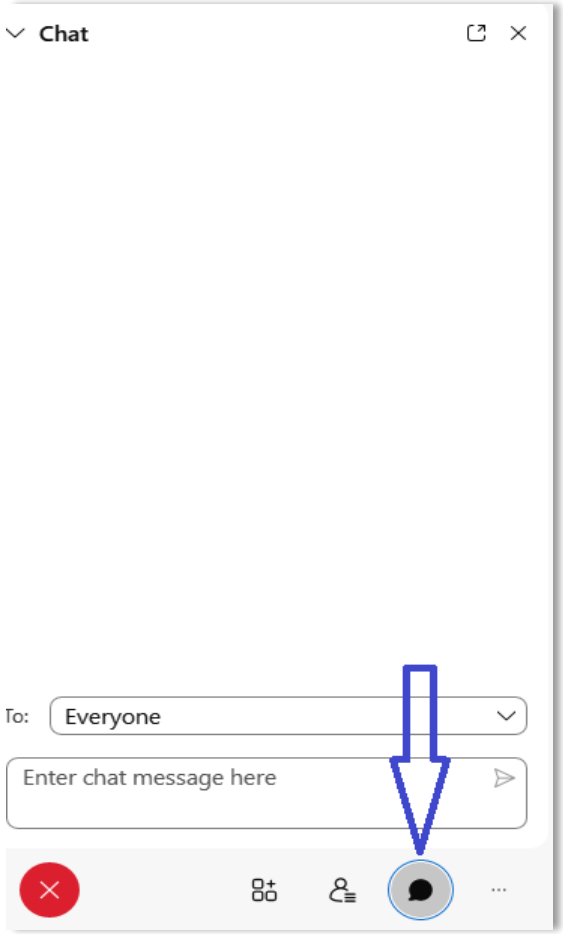
QUESTIONS?

PLEASE TYPE YOUR QUESTIONS IN THE CHAT BOX AT ANY TIME DURING THE PRESENTATION.



PLEASE ONLY SUBMIT QUESTIONS THAT ARE RELEVANT TO THE PRESENTATION AND TOPICS BEING PRESENTED.



Introductions

Roger Clugston
Director of the Rail Safety Division
California Public Utilities Commission

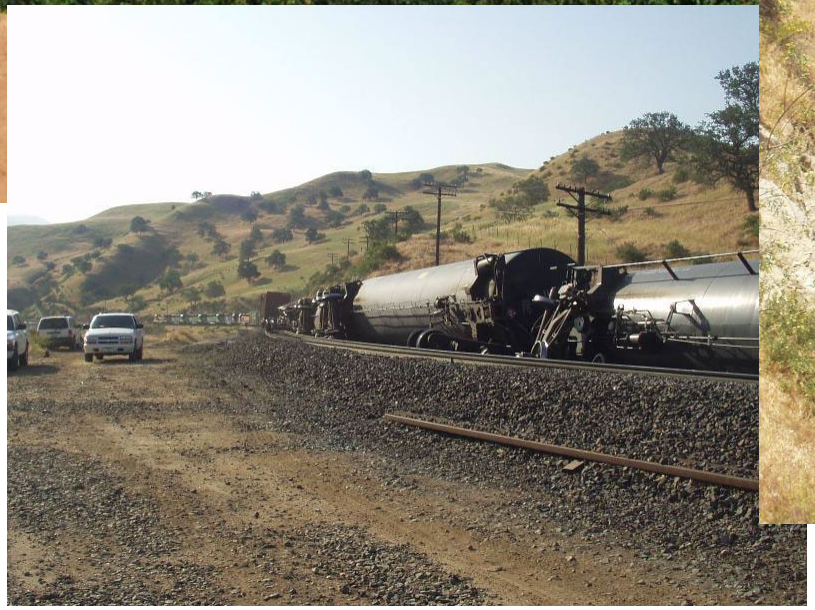
The Railroad Commission of California

- First Established in 1879, a three-person panel called the Railroad Commission, made of Southern Pacific Railroad operatives. A "No Nothing" commission, newspapers sarcastically dubbed it the "SP Literary Club", due to rampant corruption. No decisions against the railroad were passed.
- The SP Political Bureau controlled both political parties in California through the 19th Century. Reformists from non-railroad labor and management began to increase in the late 1890's and early 1900's
- Federal Employer's Liability Act (FELA) was passed in 1908 to protect railroad employees.
- 39th Legislative Session of 1910 brought in a tough, new railroad regulation law in 1911. The California Railroad Commission (CRC) was genuinely established. Regulation began in earnest.
- In 1911, the CRC increased from three to five members; gas, electricity and other utilities were added to its regulatory oversight. 1912 brought in more utility oversight.
- The CRC became the PUC in 1946.
- A railroad safety oversight branch was then established within the PUC.

Three RSD Branches

- Railroad Operations and Safety Branch
- Rail Transit Safety Branch
- Rail Crossings and Engineering Branch
- Risk Assessment and Engineering Section
    - Positive Train Control
    - Rail Bridges & Tunnels
    - Crude Oil and Ethanol Transportation
    - High Speed Rail
    - Heavy Grade Audits
    - Trespasser/Homeless Encroachment
    - Rail Safety Community Outreach

Prevention is what we do…



Division Safety Concerns

- Public Safety along railroad and rail transit tracks
- Railroad and rail transit employee safety
- Public Trespassing
- Homeless encampments and right of way encroachment
- Unregulated safety conditions and risks
- Grade crossing - vehicle queueing
- Grade crossing maintenance
- Railroad & rail transit bridge conditions
- Tunnel conditions
- Looking beyond the regulations

Safety Solution examples:

- Risk Management Status Reports (RMSR)
- Operation Lifesaver Presentations
- Focused railroad and rail transit surveillance and inspections

Questions?

Enforcement Authority– Per California Constitution, Article XII

- **ROSB** – Federally certified by **Federal Railroad Administration** (FRA), ROSB inspection staff are authorized to enforce Code of Federal Regulations applicable to freight, passenger and commuter lines. This also includes High Speed Rail (HSR) systems
  - ROSB enforces CPUC **Public Utilities Codes** and **General Orders** applicable to freight and passenger railroads and HSR.
- **RTSB** – Federally authorized State Safety Oversight Agency (SSOA) by the **Federal Transit Administration** (FTA). RTSB engineering and inspection staff conducts regular and triennial inspections on all 15 rail transit properties in California.
  - RTSB enforces CPUC **Public Utilities Codes** and **General Orders** applicable to rail transit and rail guideway systems (Trolleys; People Movers).

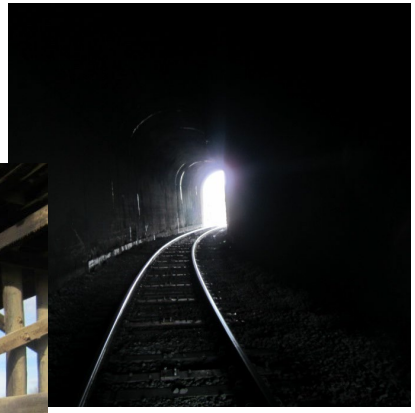
Enforcement Authority– Per California Constitution, Article XII – cont.

- **RCEB** – Has authority over all railroad, rail transit and HSR crossings in California. No crossing can be built, altered, improved, enhanced or removed without CPUC authority, which is vested in RCEB.
  - RCEB team of engineers reviews all applications for crossings, conducts diagnostic reviews and maintains a database of all approximately 12,500 crossings in California.
  - RCEB enforces CPUC **Public Utilities Codes** and **General Orders** regarding at-grade crossings and grade separations applicable to railroads, rail transit systems, rail guideway systems and HSR

Railroad Operations and Safety Branch (ROSB)

Responsible for safety oversight of:

- Tracks and structures
- Operations
- Cars and locomotives
- Signals
- Hazardous materials



ROSB Projects and Initiatives

- Railroad Bridge Evaluation Program (RBEP)
- Crude Oil Recon Team (CORT)
- High Speed Rail Team
- Risk Management Program:
  - Risk Management Status Report (RMSR)
- General Order Training Program (GOTP)
- Railroad Tunnel Evaluation Project (RTEP)
- Heavy Grade Audit Project (HGAP)
- Trespasser Railroad Encroachment Study (TRES)
- Rail Safety Community Outreach – (RCOM)
- Rail Head Wear Project (RHWP)

Rail Transit Safety Branch (RTSB)

Responsible for safety oversight of:

- Tracks and structures
- Operations
- Transit vehicles
- Signals

RTSB Core Mission

Safety oversight of

Large urban rail transit systems. Includes:

- Light rail and heavy rail transit systems (surface and subways);
- Streetcar systems;
- San Francisco Cable Car system;

Small rail trolley systems -Typically associated with specific properties, such as

- The Grove, and
- Americana on Brand in the LA area. (Both shopping centers).

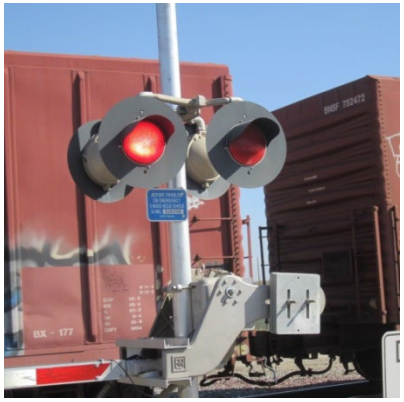
Automated People Movers (APM) -Examples are

- SFO airport *AirTrain* system,
- Sacramento Airport
- Getty Center Museum

Angels Flight Funicular.

Rail Crossing and Engineering Branch (RCEB)

- Perform Safety Inspections and Accident Investigations
- Process new crossing applications
- Process GO 88-B applications to modify existing crossings
- Prioritize and recommend funding for Section 130 funds and Section 190 funds.
- Review and make recommendations on applications for Quiet Zones



RCEB Role: Rail Crossings

- RCEB Mission: is to protect the public and rail employees by evaluating and recommending appropriate safety measures at rail crossings

- CPUC authorization is required for:
  - New at-grade and grade-separated rail crossings by filing an application with the Commission
  - Altering an existing rail crossing by filing a General Order 88-B application with the RCEB staff

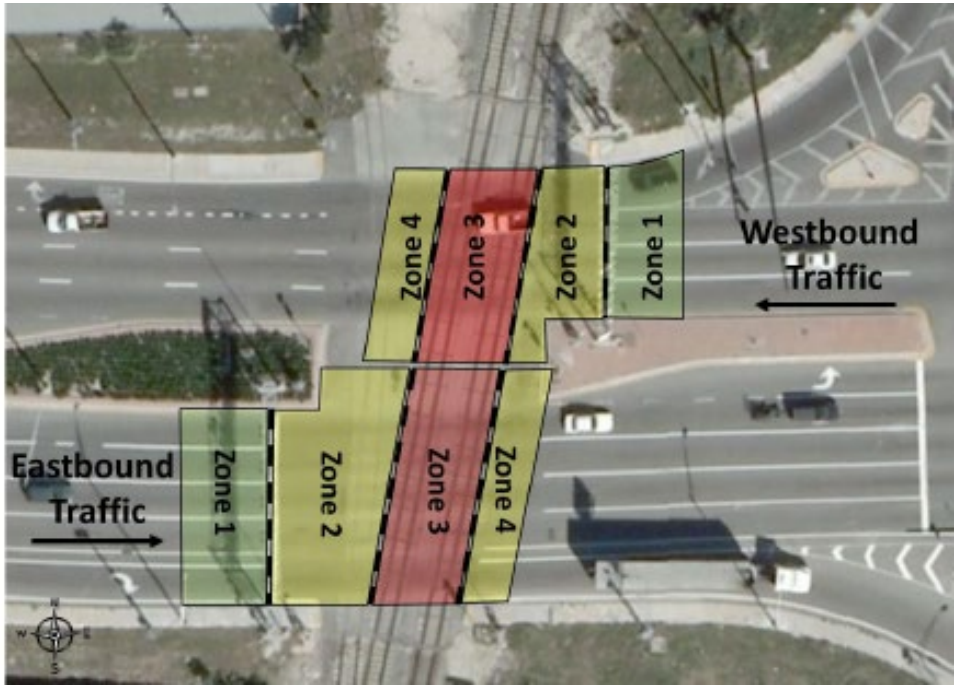
RCEB Criteria

- Review rail crossing configuration and improve rail crossing safety
- Eliminate the rail crossing hazard through Crossing closure or grade separation
- Improve roadway design through Engineering: Roadway geometry, traffic control devices, pedestrian treatments, etc.
- Educate the public for rail crossing safety

Diagnostic Reviews

- RCEB participates in field diagnostic reviews of crossing and recommends safety modifications
  - Representatives of all parties participate
  - Roadway Agency, Railroad, Rail Transit Agency, and CPUC
- RCEB Evaluates conditions at crossing to make determinations or recommendations concerning safety needs and warning devices.
- RCEB can protest a rail crossing application with the Commission if safety is compromised

What Stopping Behavior Is Safe?



Commercial Blvd & FECR crossing. Picture and graphic from Page 19, Figure 14, DOT Report: DOT/FRA/ORD-14/04

Zone 1 (not dangerous): A motorist who stops in Zone 1 has stopped before the stop line where the gate descends during an activation. Motorists stopping in this zone are behaving safely.

Zone 2 (moderately dangerous): A motorist who stops in Zone 2 has stopped after the stop line, but before the dynamic envelope. Motorists stopping in Zone 2 would be stuck inside of a descended gate but not struck by a train.

Zone 3 – Dynamic Envelope Zone (very dangerous): A motorist who stops in Zone 3 has stopped in the most dangerous part of the crossing—the dynamic envelope zone. In this zone, a train and vehicle would collide.

Zone 4 (moderately dangerous): A motorist who stops in Zone 4 has stopped past but adjacent to the dynamic envelope zone. Motorists stopping in Zone 4 would not be struck by a train.

Information obtained from DOT Report: DOT/FRA/ORD-14/04 and http://www.fra.dot.gov

Driver Responsibilities

It is the driver's responsibility to take appropriate actions at a HRGC:

- Always approach a HRGC being prepared to stop.
- Never drive through flashing warning signals without stopping first.
- Stop 15 feet from track at the stop bar white line.
- Never go around lowered warning gates or under warning gates that are descending.
- Look both ways before proceeding.
- Simple – right?

Questions?

CALIFORNIA PUBLIC UTILITIES COMMISSION | RAIL SAFETY DIVISION - 2023 update.

Proposal: Grade Crossing Dynamic Envelope Pavement Painting Pilot

Goal: Since April 7, 2016, the CPUC, by endorsement of the full Commission, has been attempting to promote rail grade crossing safety by demonstrating the effectiveness of special colored pavement markings in the dynamic envelope on an at-grade railroad crossing.
Overview: This pilot will determine whether changes in color pavement markings and signage can result in an increase in driver safe-stopping behavior and situational awareness. In addition, the pilot project will assess the effects pavement markings might have on reducing the number of accidents, injuries, and fatalities at rail at-grade crossings.
SB 506 (Laird): A Bill requiring a pavement marking project to be initiated by the CPUC (RSD) no later than 2030.

Solutions: Signs?

Railroad Crossing Signs and Signals

LOOK FOR and OBEY all railroad crossing signs and signals

Advance warning signs – a round, yellow sign with a black "**RR**" tells you that a highway-rail crossing is ahead--be prepared to stop.

Pavement markings – when you see the **"RR"** painted on the pavement, be prepared to stop.

STOP signs at railroad crossings – the same laws apply here as for any other intersection regulated by a **STOP** sign. You must come to a complete stop. If no trains are coming, you may proceed.

Crossbuck signs are like yield signs – *You must **YIELD** to trains.*

- **Slow down and be prepared to stop when you see the crossbuck sign.**
- **A sign below the crossbuck indicates the number of tracks.**

Emergency Notification Sign

Section 130 Program

The purpose of the Railroad/Highway At-Grade Crossing Program is to reduce the number and severity of highway accidents by eliminating hazards to vehicles and pedestrians at existing railroad crossings.

The program is authorized by Title 23, United States Code, Section 130 (23 U.S.C. 130), and addresses the development of railroad/highway at-grade crossing improvement projects.

Section 130 - PROJECT ELIGIBILITY

Railroad/highway at-grade crossing improvement projects include, but are not limited to installation and improvement of railroad protection systems at grade crossings, such as:

- Approach improvements (channelization, traffic signals, guardrails, pedestrian/bicycle path improvements, illumination)
- Signage and pavement marking improvements
- Active warning equipment installation/upgrades (flashing lights and gates, track circuitry, signal interconnection and preemption, wayside horns)
- Visibility improvements (sight distance improvements, vegetation clearance)
- Roadway geometry improvements (horizontal and vertical alignment such as humped crossings)
- Grade crossing elimination (through roadway closure, relocation or realignment of railroad or highway

Section 190 Program

- The Section 190 Grade Separation Program is authorized by Section 190 of the Streets and Highways Code.
- This competitive grant program provides $15 million each year to local agencies for the construction of grade separation projects. The program is jointly administered by the California Public Utilities Commission (CPUC) and the California Department of Transportation (Caltrans).
- Local agencies submit project applications to the CPUC. The CPUC develops a priority list of projects. Local agencies whose projects are included on the priority list submit requests for an allocation of funds to Caltrans.
- Caltrans enters into funding agreements with local agencies for reimbursement of the cost to construct the grade separation.

Section 190 Program

The intent of the Grade Separation Program is to improve safety and expedite the movement of vehicles by eliminating highway-rail crossing at grade with a grade separation. Grade separation means a structure which actually separates the vehicle roadway from the railroad tracks.

The grade separation project can include the grade separation and all approaches, ramps, connections, drainage, and other construction items required to make the grade separation operable and to effect the separation the vehicle roadway from the railway tracks.

Grade separation projects may also include provisions for separations of non-motorized traffic from vehicular roadway and the railroad tracks.

In your town…

Do you:

- Have an effective communication bridge with the railroad or rail transit system running through your town?
- Deal with more than one railroad or rail transit official?
- Have an emergency response plan with railroad or rail transit entity?

Have you:

- Ever used ENS numbers posted at grade crossings?
- Established an annual meeting with rail officials?
- Had no response from rail officials regarding questions or complaints?

Trespasser / Homelessness Railroad Encroachment Study (TRES)

TRES was initially established to grasp the number of homeless encampments along railroad and rail transit properties and evaluate the multitude of risks associated with such encampments. Our goal is:

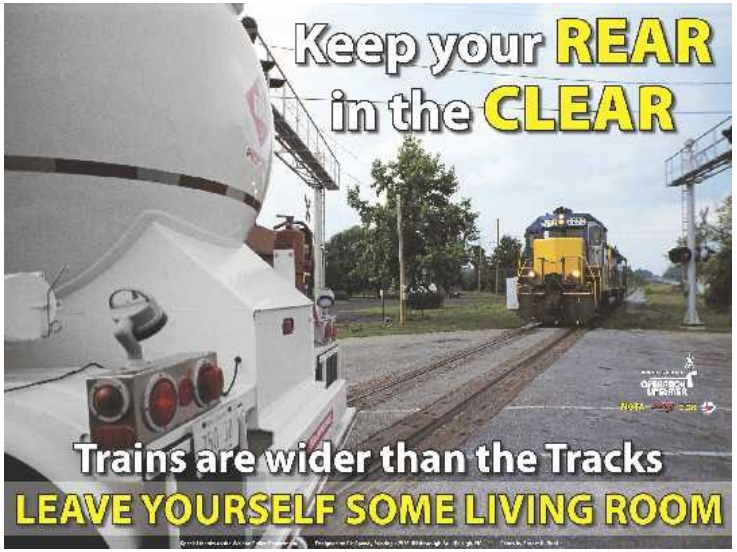
- To assist in building a reliable communication bridge between communities and railroad / rail transit entities.
- Create greater awareness of the risks to railroad employees and the homeless.
- Share ideas from other communities that are humane and effective intended to lessen the number of these encampments.

Railroad Crossings and Engineering Branch

- For more information visit the RCEB website at:
- http://www.cpuc.ca.gov/crossings/

Operation Lifesaver

OPERATION LIFESAVER©
Rail Safety Education

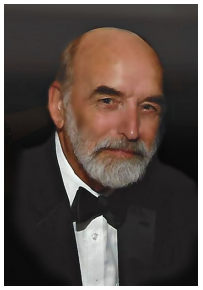


Rail Safety Division - RSD

Questions?

Thank you!
For Additional Information please contact me or visit our webpage:

http://www.cpuc.ca.gov/rail/



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