



**CPUC Public Agenda 3270**  
**Thursday, March 10, 2011, 9:00 a.m.**  
**505 Van Ness Ave, San Francisco**



**Commissioners:**  
**Michael R. Peevey**  
**Timothy Alan Simon**  
**Michel Peter Florio**  
**Catherine J.K. Sandoval will participate remotely**

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# CPSD Safety Report



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**California Public Utilities Commission**





# Presentation Overview

- Introduction – CPUC rail safety programs
  - Railroads
  - Rail transit systems
  - Rail crossings
- Union Pacific Railroad (UPRR) - Windmill parts trains
  - Compliance issues
  - Accident risks
  - Results





# CPUC *Railroad Safety Program*

- Railroads – includes freight, passenger, and commuter railroads.
  - Freight: Union Pacific, Burlington Northern Santa Fe, and 22 short lines such as the San Joaquin Valley Railroad, the California Northern Railroad, the Modesto & Empire Traction Co., and the Pacific Harbor Line.
  - Passenger: Amtrak
  - Commuter: Metrolink, Caltrain, Altamont Commuter Express (ACE), Capitol Corridor
- Shared jurisdiction with the Federal Railroad Administration (FRA).
  - CPUC inspectors enforce both state and federal regulations.
  - Inspectors federally certified in track, motive power and equipment, operations, signal and train control, and hazardous material shipment.
  - CPUC may promulgate regulations where not covered by the FRA.





# CPUC *Rail Transit Safety Program*

- 12 rail transit systems
  - Large systems: BART, Los Angeles County MTA, Santa Clara Valley MTA, San Francisco “Muni,” Sacramento Regional Transit District, San Diego Trolley.
  - Medium-size system: North County Transit District “Sprinter.”
  - Smaller systems: SFO’s “Airtrain,” Port of Los Angeles Red Car Line, Angel’s Flight, and Caruso Grove Trolley and Americana at Brand Trolley.
- CPUC exclusive jurisdiction
  - Federal Transit Administration (FTA) has been prohibited from safety regulation, provides funding and safety regulation guidelines for states.
  - CPUC enforces state safety regulations via system safety plan audits and on-the-ground inspections, provides safety certification of new systems, and may promulgate new safety regulations.
  - Legislation before Congress to allow FTA to regulate rail transit safety.





# CPUC *Rail Crossing* Safety Program

- Over 13,000 rail/highway crossings:
  - At-grade and grade-separated crossings.
  - Public and private crossings.
  - Railroad and rail transit crossings
- CPUC exclusive jurisdiction
  - Authorizes new crossings and modification of existing crossings.
  - May require new crossings or closure of existing crossings.
  - CPUC General Orders set state crossing safety standards.
  - Provides safety criteria for crossing improvement funding.
    - Grade-separation funding.
    - Crossing safety protection improvement - federal funding.
    - Automatic grade crossing warning device maintenance fund.





**Windmill parts train on Cima grade between Las Vegas and Mojave.**





# Tehachapi windmill installation





# Windmill power generation

- Owned and operated by Terra Gen Power.
- Located in the Tehachapi area between Bakersfield and Mojave.
- Assemblies shipped to Mojave from Colorado, Texas, and Iowa.
- 320 new windmills to be installed, generating 800 MW.
- Projected to be largest “windmill farm” in the country.





# Windmill parts train







# CPUC inspections

## CPUC inspectors found:

- Over 300 FRA equipment defects
- 30 FRA equipment violations
- Brake defects, inoperative brake violation, wheel damage, truck defects.
- Three CPUC General Order 26-D violation reports: No wide-load placards.





**Burned-off  
brake shoe,  
grooved wheel  
tread.**





## Tape measures portion of wheel with heat damage





# Binding brake rigging



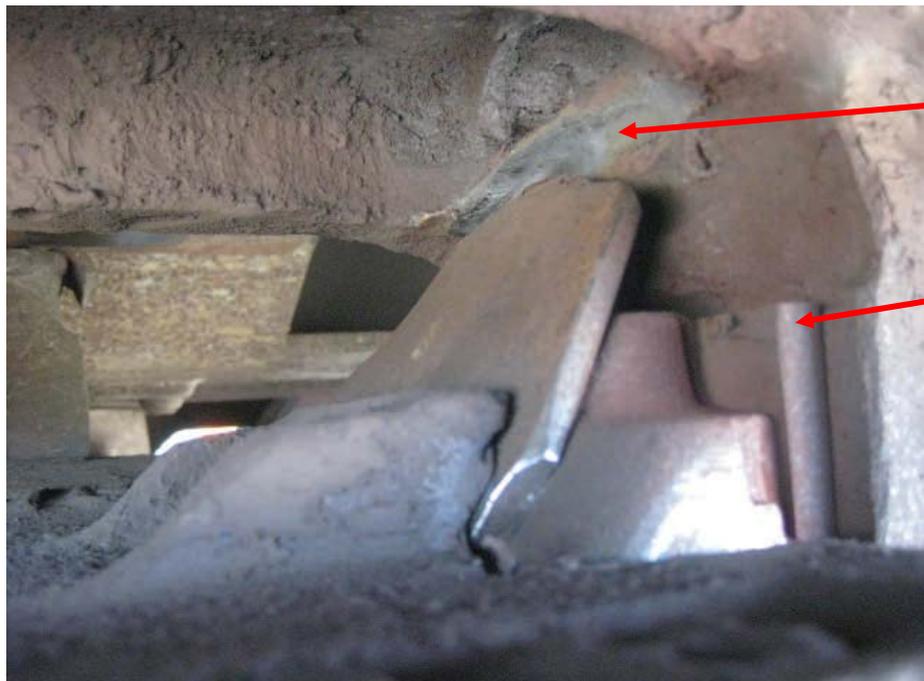
Circle indicates binding point for brake rigging.





# Binding brake rigging





**Truck side-frame wear**

**Steel wear plate**



**Steel wear plate  
missing**





## Stenciled excess-width warning





## Wide loads without required warning – no placards





## Local attempt to provide warning placards





## Failed attempts at compliance

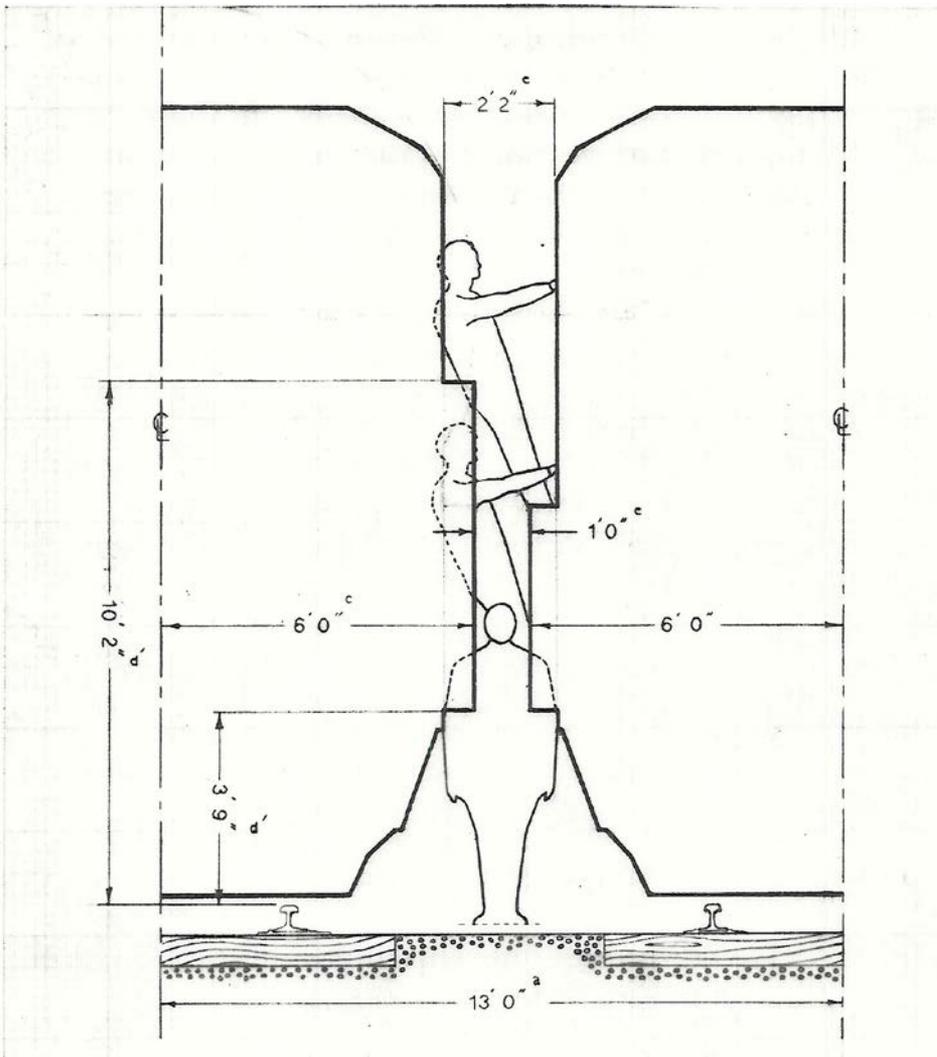




# Risks posed by non-compliance

- Loss of braking, runaway, derailment, or collision with freight or passenger train.
- Derailment from rigid and stiff trucks.
- Lading damage or side-collision from lack of wide-load warnings.
- Employee casualty from lack of wide-load warnings.





Wide load risks illustrated





# Results

- In joint action with Region 7 FRA and UPRR, CPUC inspection reports resulted in action in FRA Regions 5 and 6 to ensure compliance from origin.
- UP will not move shippers trains with FRA non-compliance - at origin.
- UP to ensure durable placards on these cars.
- Heightened UPRR awareness of General Order 26-D compliance issues.
- Continued cooperation from UPRR.
- Continued CPUC vigilance for future shipments.

