



Railroad Track Inspections - Overview



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Presentation Overview

- Railroad Operations and Safety Branch (ROSB).
- Railroad inspection overview.
- Enforcement tools.
- Non-compliance examples.
- Resulting actions.





Railroad Operations and Safety Branch (ROSB)

- Provides state oversight of “national network” railroads in CA.
 - Freight: Union Pacific, Burlington Northern Santa Fe, short lines.
 - Passenger: Amtrak, Caltrain, Metrolink, others.
- Has 37 railroad inspectors.
 - Track and structures.
 - Motive power and equipment.
 - Operating rules.
 - Signal and train control.
 - Hazardous materials shipping.





ROSB (cont.)

- Works in partnership with the Federal Railroad Administration (FRA).
- ROSB inspectors:
 - 27 FRA-certified inspectors.
 - 4 inspectors in training.
 - 3 vacancies (2 signal, 1 track).
 - 1 manager, 2 supervisors.





Railroad Track Inspections

- ROSB has 7 FRA-certified track inspectors
 - Plus one vacancy.
- California state mandate: Every main and branch line mile every year.
 - 7,109 main and branch line miles.
 - Approximately 10,000 total miles in CA.
- Walking, hi-rail, and geometry car.
- Annual recurrent training.





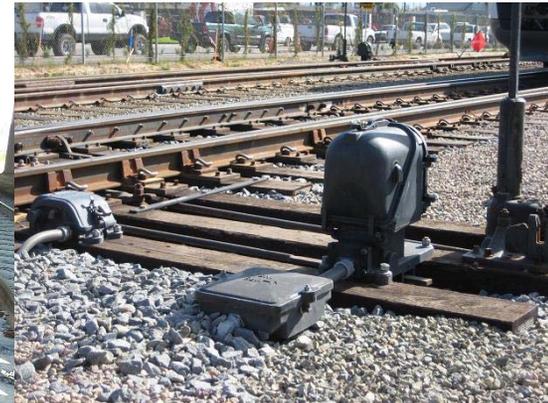
Railroad Track Inspections

Applicable Code of Federal Regulations (CFR)

- 49 CFR – Part 213 – Track Safety Standards (TSS)
- 49 CFR – Part 214 – Roadway Worker Protection
- 49 CFR – Part 218 – Railroad Operations

Applicable CA General Orders and Public Utility Codes

- General Order 26-D – Side and overhead clearances
- General Order 118-A – Walkway surfaces





ROSB/FRA Enforcement Tools

ROSB/FRA has several enforcement tools, most common:

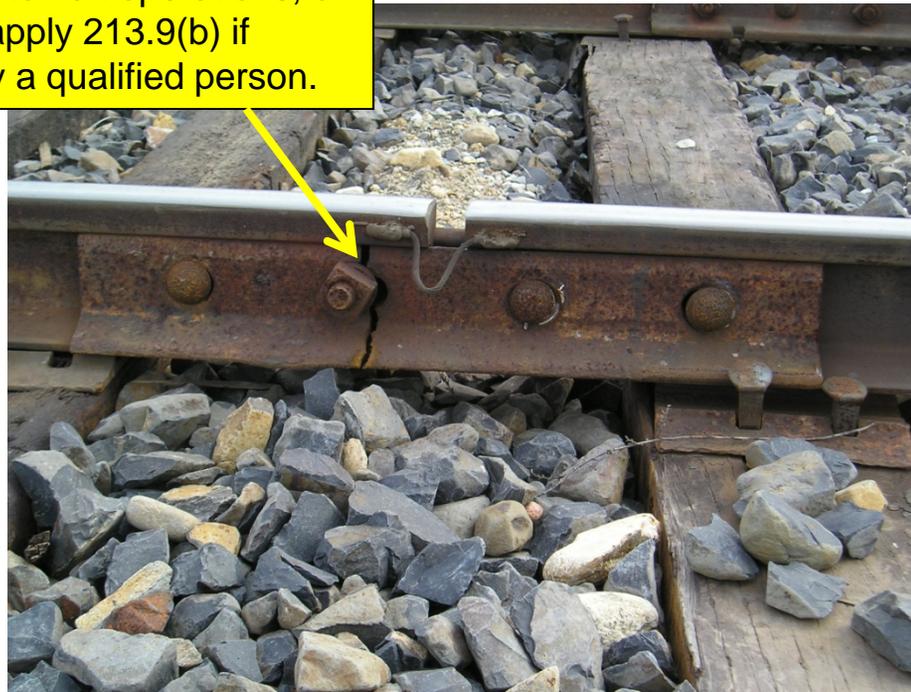
- Defect report
- Violation report (recommending a civil penalty)





- **Defect:** A condition not in compliance with the TSS.
 - Defects are noted on inspection reports:
 - Serve as notification to the railroad.
 - Serve as notice of ROSB/FRA's awareness of the defect.

Example: Center crack joint bar (defect), CFR 121.03 - Remedial action is to halt operations, or repair before next train, or apply 213.9(b) if determined safe to do so by a qualified person.

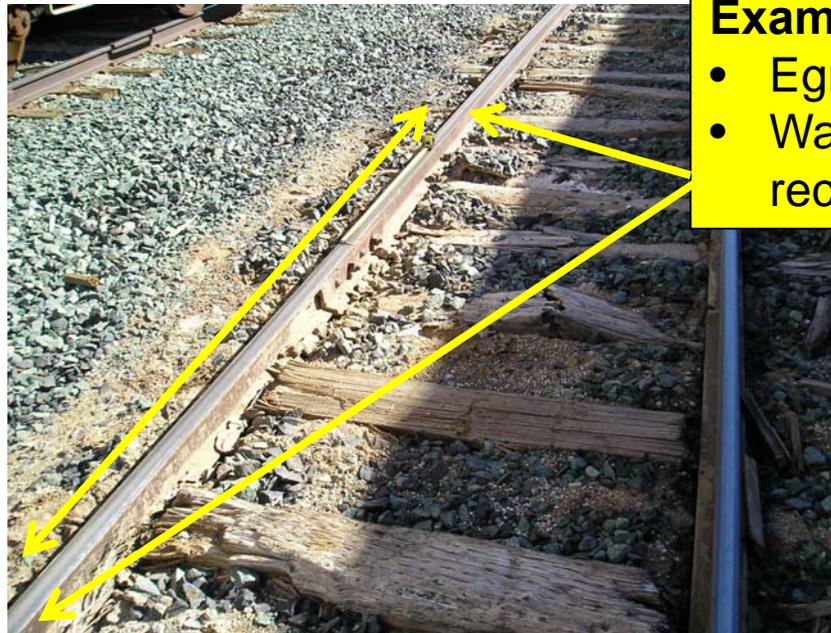




Violation (Recommendation for Civil Penalty)

A **violation** serves three primary purposes:

- 1) Notifies the railroad of an egregious safety condition.
- 2) Notifies the railroad of non-compliance with the Track Safety Standards.
- 3) Notifies the railroad that civil penalty is recommended.



Example:

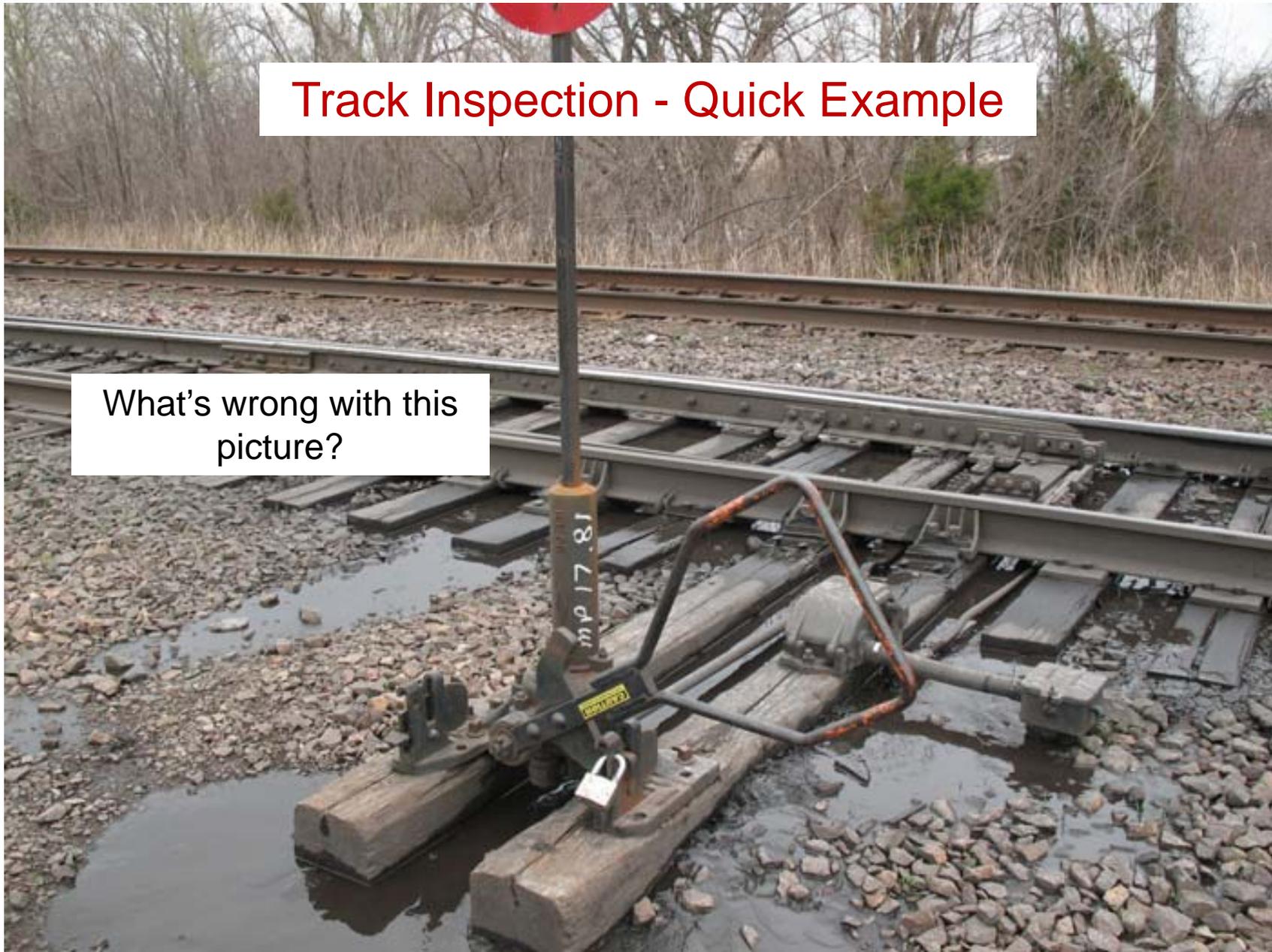
- Egregious joint tie defect
- Warrants a civil penalty recommendation





Track Inspection - Quick Example

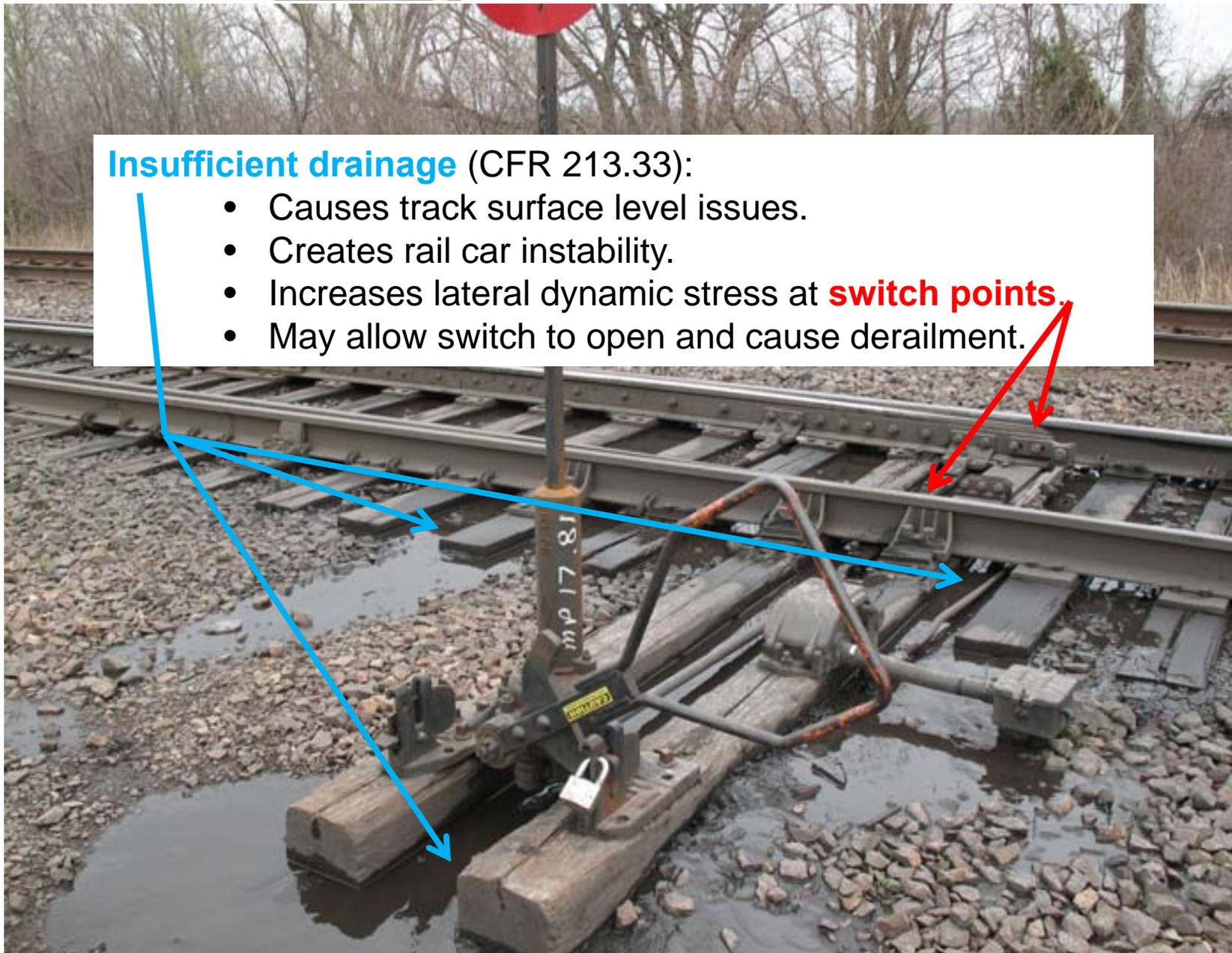
What's wrong with this picture?

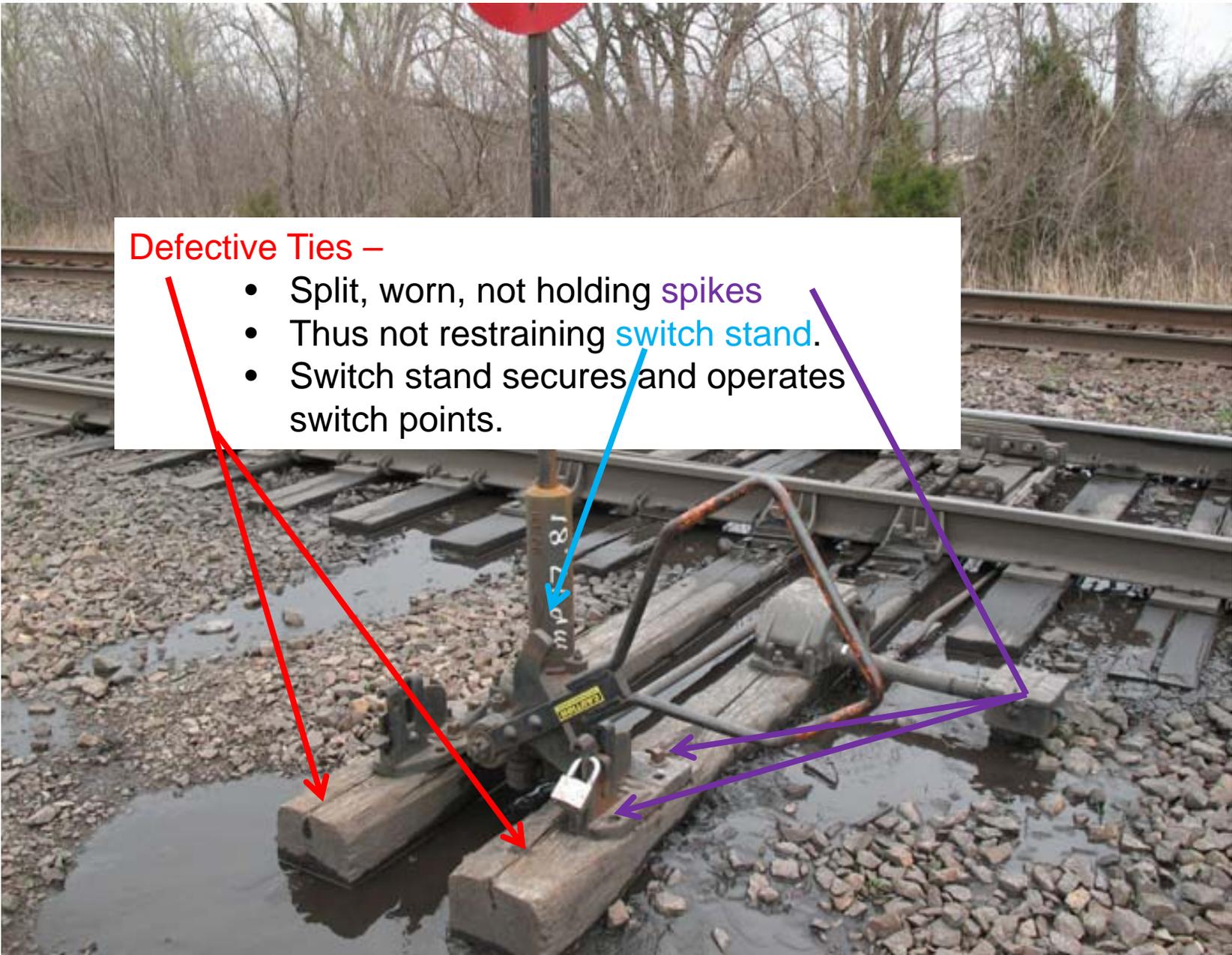




Insufficient drainage (CFR 213.33):

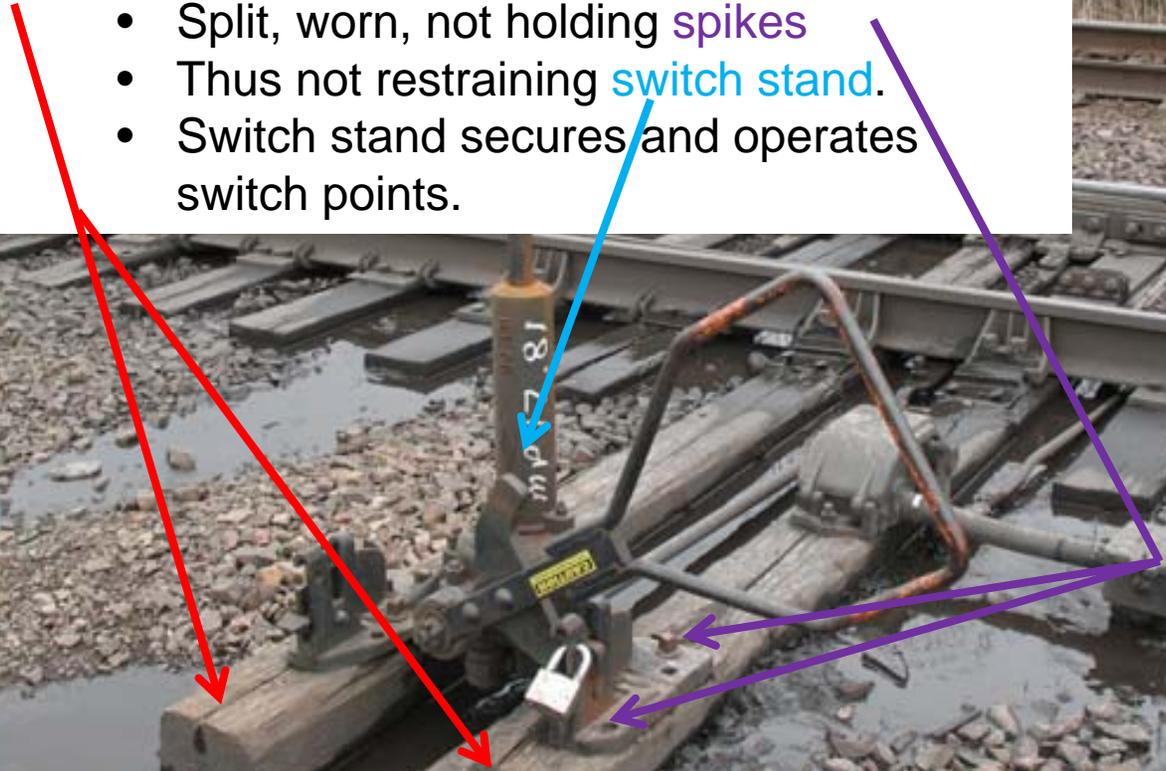
- Causes track surface level issues.
- Creates rail car instability.
- Increases lateral dynamic stress at **switch points**.
- May allow switch to open and cause derailment.





Defective Ties –

- Split, worn, not holding spikes
- Thus not restraining switch stand.
- Switch stand secures and operates switch points.







Resulting Actions

- Issues discussed with railroad management.
- Action plan made.
- Railroad inspection failure analyzed and addressed.
- Defect or violation issued.
- Follow-up inspection.
- 2012:
 - 3,361 track standards defect reports.
 - 15 track standards violation reports.





Effective track inspections can prevent accidents like this.





ROSB

