

Rail Safety Division



Monthly Performance Report

February 2021

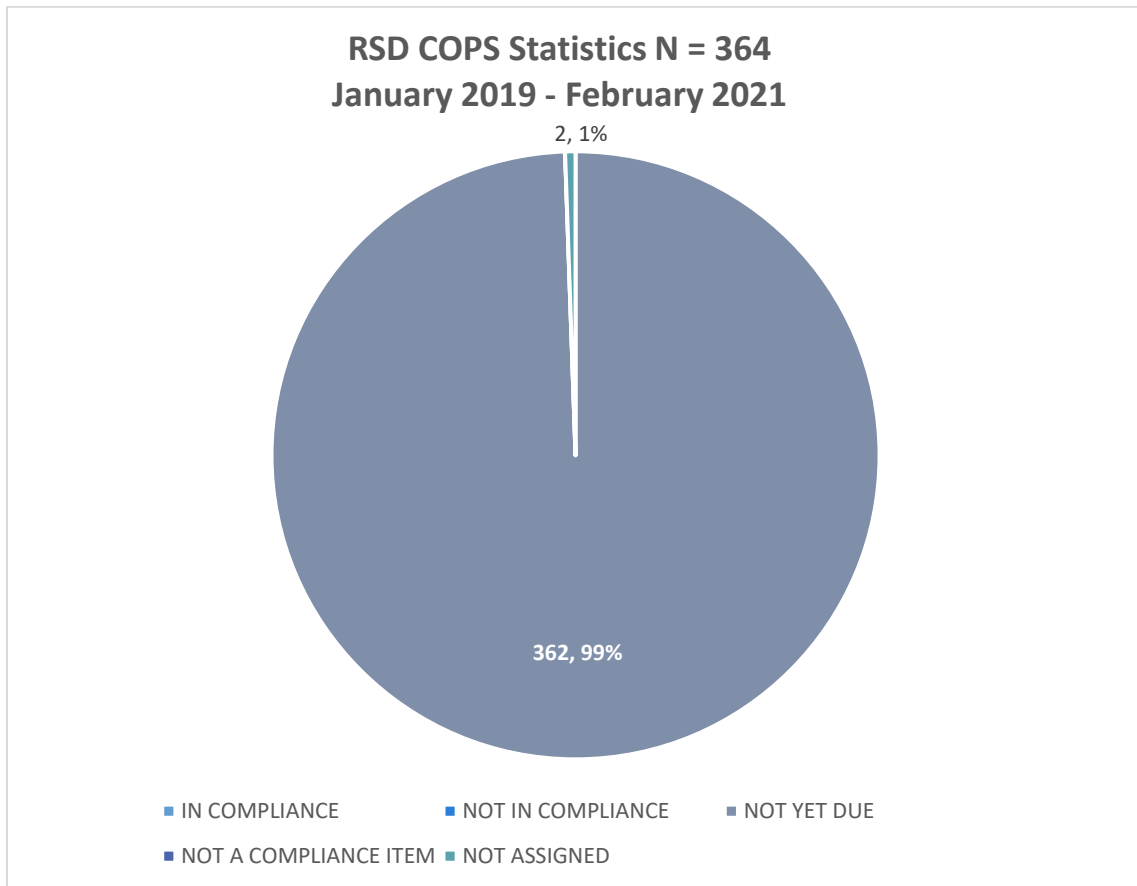
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COMPLIANCE WITH ORDERING PARAGRAPHS (COPS)

Through February 28, 2021, the Rail Safety Division (RSD) showed 364 total entries in the COPS system, with 0 reaching compliance, 362 (99%) not yet due for compliance, and 0 (0%) out of compliance. 362 (99%) of all Ordering Paragraphs (OP) are assigned to staff with one ordering paragraph pending assignment and one ordering paragraph pending identification of the Subject Matter Expert.

During February 2021, there were 15 new OPs recorded to the COPS database for the Rail Safety Division.

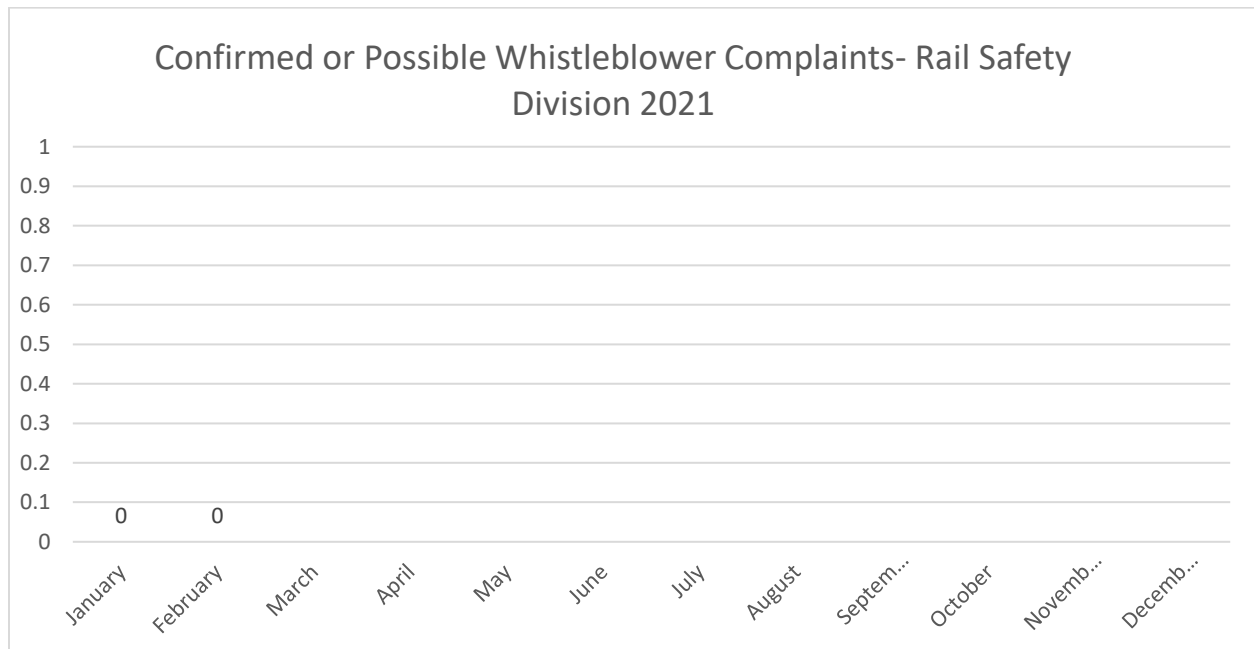


MONITORING THE WHISTLEBLOWER WEBSITE

The Risk Section has been overseeing intake for complaints that arrive via a “whistleblower” application on the Commission’s web site. Whistleblower protections are afforded to utility employees and contractors who report potentially unsafe or illegal practices.

STATISTICS - 1/1/21 – 2/28/21

Note: This is for complaints filed using the on-line Whistleblower Application ONLY.



RAILROAD OPERATIONS SAFETY BRANCH – ROSB

In February 2021, the RSD Railroad Operations Safety Branch (ROSB) completed the following:

Railroad Operations Safety Branch	Feb-2021	YTD 2021
New Incidents Investigated	8	15
Informal Complaints Investigated	0	1
Safety Assessments/Reviews	1	13
Compliance Actions	1212	2088
Major Inspections Completed	2	4
Operation Lifesaver Presentations	0	0

ROSB INSPECTION, INVESTIGATION & FIELD ACTIVITIES

February 3, 2021: CPUC Railroad Safety Inspectors conducted a multi-discipline, multi-region inspection of the Union Pacific (UPRR) and BNSF railroads in Benicia, Ozol and Oakland.

The inspection included hazardous materials compliance inspections for proper closures, placards, stencils, and other items pertaining to the shipment of rail cars containing hazardous materials, and operating practice inspections to verify compliance with Federal and State regulations of railroad operating and safety rules. Track inspections were made for rail, switch, tie, and walkways to determine compliance with Federal and State regulations.

Each inspector also conducted CPUC General Order (GO) 26-D and 118-A compliance inspections at each location. The purpose of GO 26-D is to prevent injuries and fatalities to trainmen by providing a minimum standard for overhead and side clearance on the railroad tracks. GO 118-A provides standards for the construction, reconstruction, and maintenance of walkways adjacent to railroad tracks to provide a safe area for train crews to work.

The following are the defects listed by discipline found by the inspectors:

Hazardous Materials

- A tank car with improper spelling of OXIDIZING; spelled OXIDISING on all 4 placards in

violation of 49 Code of Federal Regulations (CFR) 172.508(a).

- A tank car placard was misspelled. The word "LIQUEFIED" was spelled "LIQUIFIED" on the right side in violation of 49 CFR 172.330(a)(1)(ii).
- A tank car had a placard with top portion of placard not visible due to deterioration on right side of car in violation of 49 CFR 172.516(c)(6).

Track

- Two defect citations for worn, loose or missing bolts on the track in violation of 49 CFR 213.133(a)(12).

Operating Practices

- While observing a train in motion, an inspector noted that the engineer did not sound the locomotive horn in the proper sequence for the required duration as he approached Barrellesa St in Martinez as required in 49 CFR 222.21.
- During an inspection of the certification card for an engineer on the Pittsburg local at Ozol, the inspectors noted that his card had not been signed as evidence of an annual monitoring ride in 2020 as required in 49 CFR 240.223 (a)(7).
- Safety chains behind a UPRR train in West Oakland were hanging down too low to provide a means of safe passage between locomotives in violation 49 CFR 229.119 (e)(1).

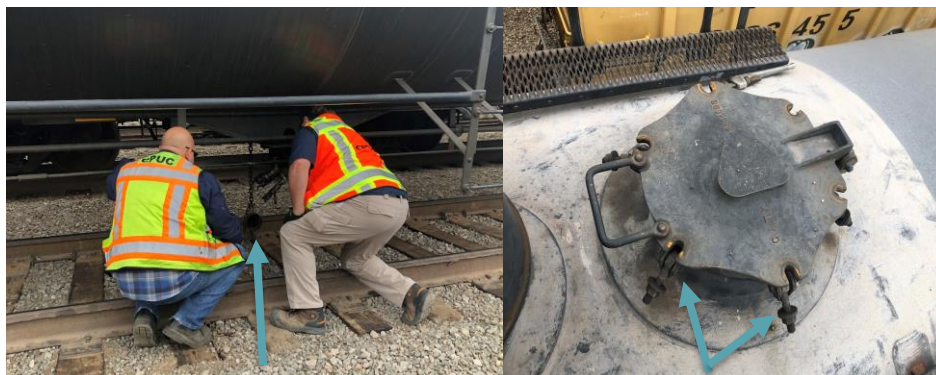
The defects listed were reported to UPRR and BNSF management for remediation and staff verified that all defects have been corrected and brought into regulatory compliance.

February 9, 2021: CPUC Railroad Safety Inspectors conducted a hazardous materials compliance inspection at the UPRR City of Industry rail yard. During the inspection, multiple non-compliant items were identified on a tank car transporting hazardous materials. Each item noted could have potentially resulted in a release of highly flammable materials that may have injured a railroad employee or a member of the nearby community. According to 49 CFR

173.31 (d)(1), no tank car containing a hazardous material or a residue of a hazardous material may be authorized for transportation unless it is determined that the tank car is in proper condition and safe for transportation. The non-compliant items in violation of Federal regulations were as follows:

1. Manway swing bolts not secured. (49 CFR 173 (d)(2)) requires closures on tank cars to be closed and secured.
2. Bottom outlet cap not secured. (49 CFR 173 (d)(2)) requires closures on tank cars to be closed and secured.
3. Protective housing pin not applied. (49 CFR 173 (d)(2)(v) requires that protective housings be properly secured.

The CPUC inspectors immediately notified UPRR management of the non-compliant issues identified on the tank car. The UPRR dispatched a hazmat remediation team to take corrective action and verify that the defects were corrected, and the tank car was brought into regulatory compliance. CPUC inspectors filed a federal inspection report identifying the non-compliant issues on the tank car. The shipper of origin was contacted by the CPUC inspectors to review their pre-transportation loading procedures. After the review, it was determined by the shipper that the employee did not follow the procedures. The CPUC recommended civil penalties against the shipper for improper securement and failure to follow company procedures.



CPUC Inspectors identifying cap not secured

Manway swing bolts not secured

February 9, 2021: A CPUC Railroad Safety Inspector performed a routine inspection of the UPRR in West Sacramento to verify compliance with CPUC GOs 26-D, 72-B, 75-D, and 118-A.

During the inspection, the inspector observed a metal chain link fence separating a trucking company and the adjacent track located in West Sacramento that was impeding the GO26-D requirement of a minimum 9'6" side clearance for that track. The CPUC inspector observed the fence had been hit in numerous places which caused it to lean towards the track at an approximate 45-degree angle. This created a hazardous condition for train crews riding the side of moving equipment during shoving moves. A railroad employee could be struck by the fence and become pinned between the fence and moving railroad equipment, or an employee may be impaled by the fence post.

The CPUC inspector contacted the UPRR manager in charge of train operations to advise him of the hazardous condition caused by the leaning metal fence. The UPRR manager advised the CPUC inspector that the UPRR did not maintain that section of the track; however, the UPRR manager stated he would instruct his crews to not operate on the track until the fence had been repaired. The UPRR manager contacted Valley Slurry Seal who worked with the trucking company to pull the fence out of minimum side clearance for the track and secure the fence. On February 11th, the CPUC inspector returned to perform a follow-up inspection and observed the walkway on the west side of track in West Sacramento had been repaired. The chain link fence had been repositioned to 9'6" from the centerline of the track allowing sufficient clearance for train crews riding the side of railroad equipment. The inspector also observed that the chain link fence had been secured so it would not lean back towards the track.

February 11, 2021: CPUC Railroad Safety Inspectors performed a compliance inspection at the UPRR Mira Loma rail yard, located in Mira Loma. The inspection focused on compliance with federal regulations regarding of labeling, marking, stenciling, placarding, proper handling, and the securement of closures on tank cars containing hazardous materials.

On the day of inspection, a tank car was found with a valve bolt loose and not properly secured. All such bolts are required to be "tool tight" per federal regulations. If a commodity in the tank

car is volatile and highly flammable it could result in catastrophic consequences for railroad employees, shippers, or the public.

49 CFR 173.31 (d)(1)(iv) states shippers are responsible to assure all closures on tank cars and determine that the closures and all fastenings securing them are properly tightened in place using a bar, wrench, or other suitable tool. The UPRR Manager of Terminal Operations on duty was immediately notified of the non-compliant condition for corrective repairs. He had a specialist properly tighten the bolts bringing the tank car into regulatory compliance.

The CPUC inspector also contacted the shipper of this hazardous commodity and notified them of the dangerous condition. The shipper understood the gravity and agreed to perform a safety meeting with their employees, in which all employees at the facility were instructed on proper loading procedures as well as the potentially catastrophic consequences of non-compliance.

February 12, 2021: CPUC Railroad Safety Inspectors concluded an investigation of two uncontrolled freight car movements at the UPRR West Colton classification yard in Bloomington that took place on January 17, 2021 involving five tank cars that collided with three locomotives and again on February 12, 2021 involving a tank car that derailed. In both instances, the cause was determined to be a braking device that failed. These incidents did not cause any injuries however future uncontrolled movements could lead to serious injuries or even death to railroad employees working in or around the area.

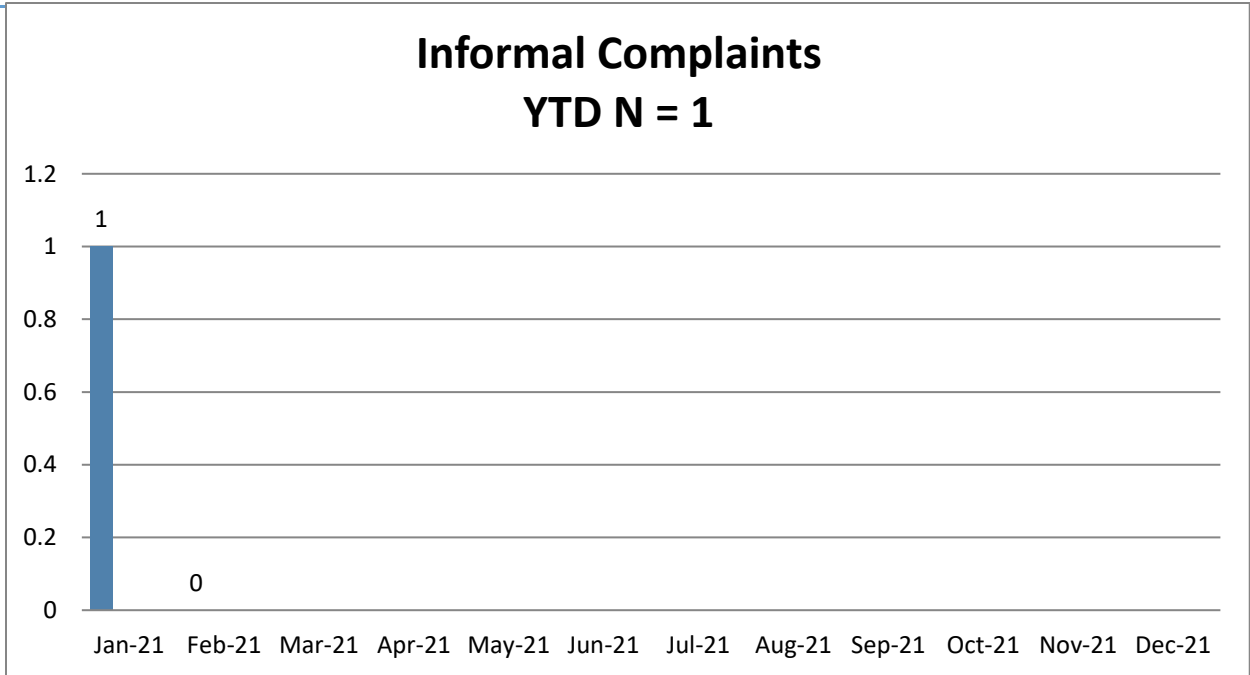
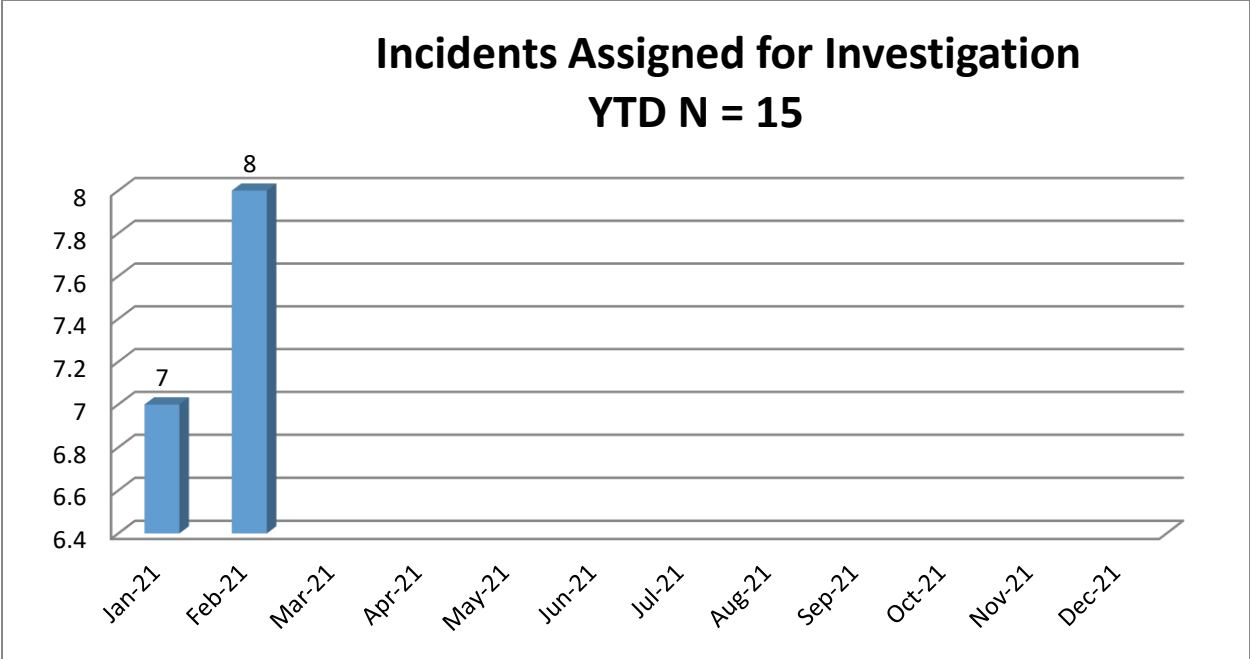
The investigation identified multiple safety concerns with UPRR operational processes, training and technology used at this location. Recent changes to the computer system that controls the classification yard tracks have reduced the ability of the yardmasters to determine if the system controls are set to manual or automatic during normal operations. Currently, automatic brake retarders are relied upon to stop and hold the cars in each track after they reach the end of the track or make a coupling to car(s) on the track.

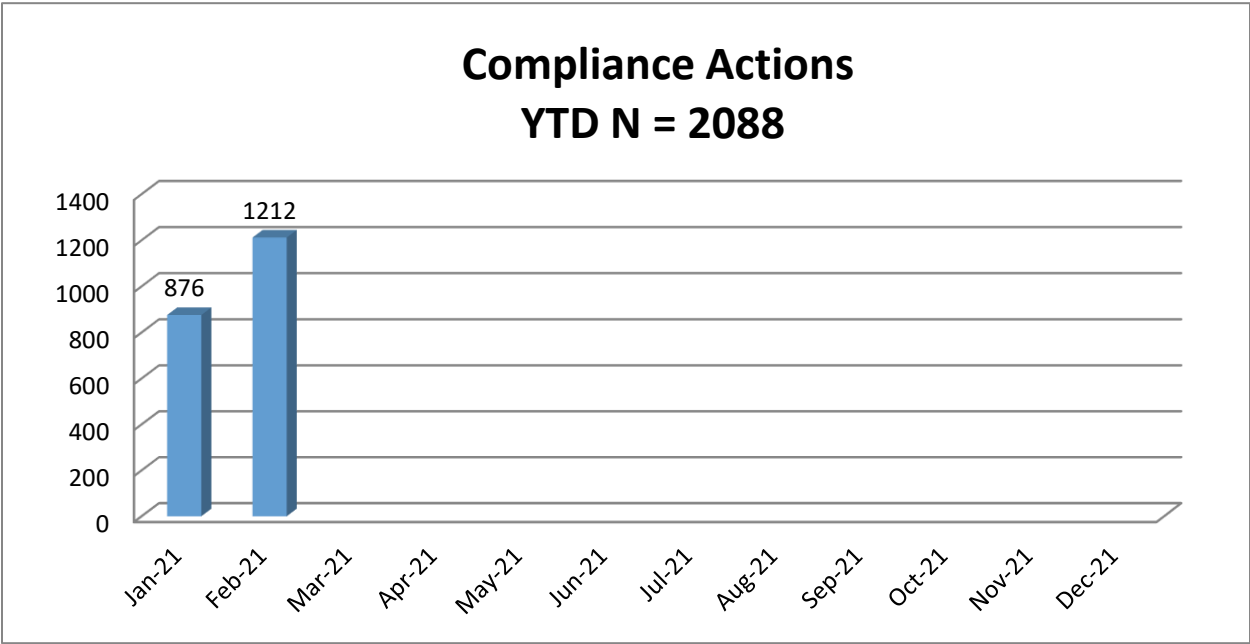
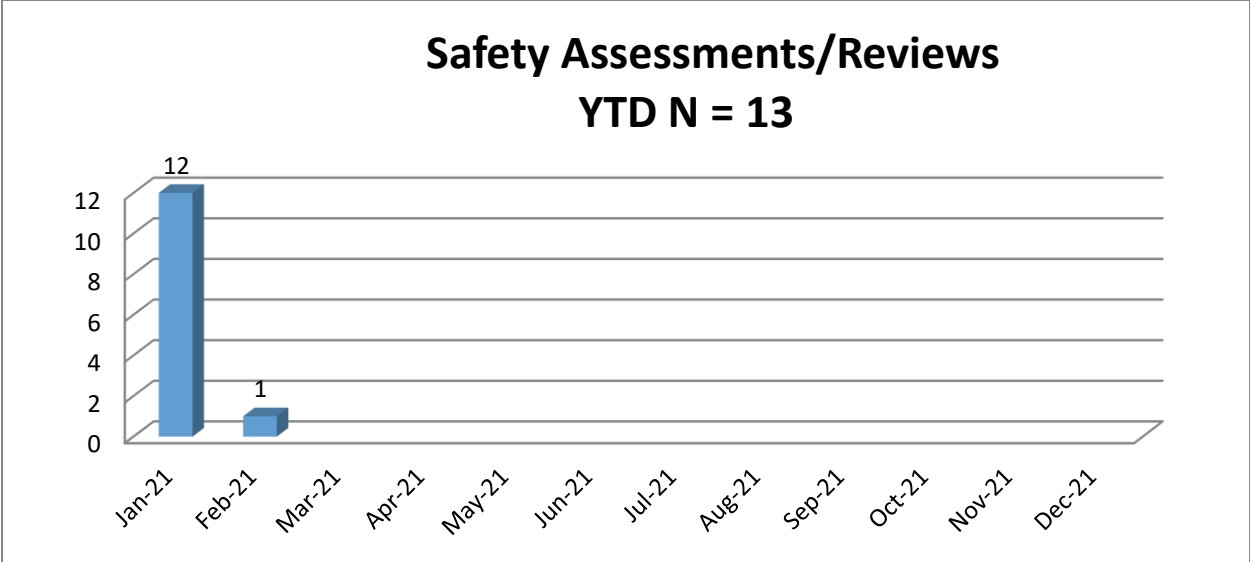
CPUC inspectors have opened a Risk Management Status Report (RMSR) identifying multiple safety risks that are outside of the scope of current state and federal regulations. The purpose of an RMSR is to identify and suggest changes to current operations to enhance safety.

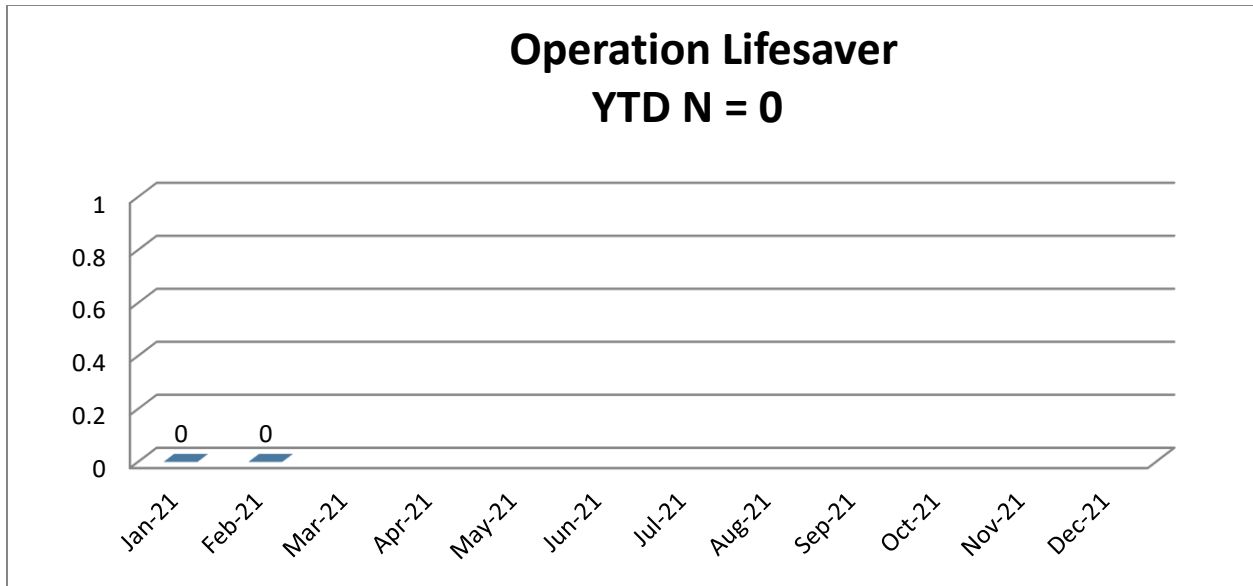
Recommendations forwarded to the railroad by the CPUC included the implementation of hand brakes to freight cars standing at the east end of the classifications tracks and/or placement of a manual hand skate on the rail of each track. Applying hand brakes or using manual skates would add an extra layer of protection to reduce future uncontrolled movements. The CPUC also suggested changes to the computer program that controls railcar speeds in the classification yard. In both incidents, the cars were traveling at excessive speeds. The two photos below show an automated brake retarder on the east end of the Colton classification tracks and a caustic acid car that was involved in the uncontrolled movement.



Automatic brake retarder used to stop and hold rail cars at the end of the track.







CRUDE OIL RECONNAISSANCE TEAM (CORT) MONTHLY REPORT

The CORT was formed in 2014 in response to highly volatile crude oil transportation in North America. The CORT’s purpose is to monitor crude oil transported by rail into California. This report tracks CORT activities, crude oil unit trains¹ entering California each month and the type of crude oil being transported.

The CORT’s role was expanded in 2018 to include tracking ethanol unit trains entering the state and documenting the location of stored hazardous material tank cars.

Crude Oil Shipments in California							
Consignee ²	Highly Volatile (Y/N)	# Unit Trains Received February	# Unit Trains Projected March	# Unit Trains FYTD (20-21)	# Cars Received February	# Cars Projected March	# Cars FYTD (20-21)
Plains All America	N	2	0	4	200	0	400
Kern Oil	N	1	1	11	100	100	1100
Ethanol Unit Train Shipments in California							
Consignee		# Unit Trains Received February	# Unit Trains Projected March	# Unit Trains FYTD (20-21)	# Cars Received February	# Cars Projected March	# Cars FYTD (20-21)

¹ A unit train is a freight train composed of cars carrying a single type of commodity that are all bound for the same destination.

² See Appendix A for descriptions of Consignees and Railroads.

California Public Utilities Commission | Rail Safety Division

Kinder Morgan (Wilmington)	8	8	77	781	800	7785
NuStar Energy (Selby)	3	5	9	300	500	900
Storage of Hazardous Material Cars						
Railroad	Loads	Empties	Commodity	County		
Arizona California RR	0	88	LPG	San Bernardino		
Fillmore and Western RR	0	173	LPG	Ventura		
Northwestern Pacific RR	25	91	LPG	Marin		
Santa Maria RR	0	226	LPG	Santa Barbara		
Sierra Northern Railway	39	232	LPG	Stanislaus		
West Oakland Pacific RR	0	138	LPG	Alameda		
Yreka Western RR	0	0		Siskiyou		

Audits/Inspections/Investigations

None

Informal Complaints received by Railroad Employees or Representatives

None

RMSR Submittals

None

Rule/Regulation Defects/Violations

None

Additional Notes or Comments

Appendix A

Crude Oil Consignees

Delta Trading in Bakersfield has oil cars delivered by manifest train. Delta is still seeking a new customer.

Kern Oil in Bakersfield has unit trains delivered by the San Joaquin Valley Railroad (SJVR).

Plains All America in Taft has unit trains delivered by the SJVR.

Ethanol Unit Train Consignees

Kinder Morgan is a pipeline and off-loading facility located in Wilmington, that receives 64 or 96 car unit trains delivered by the BNSF.

Nu Star Energy is an energy provider in Selby, that receives 100 car ethanol unit trains delivered by the Union Pacific Railroad (UPRR).

Hazardous Material Car Storage Locations

Arizona-California Railroad is a short line railroad that operates over 91 miles between Cadiz and Parker, Arizona. A spur track located in Rice, owned by the railroad but leased by PBF Energy for the storage of tank cars. Cars are Interchanged at Cadiz with BNSF.

Fillmore and Western Railroad is a short line railroad that operates 31miles track in Ventura County and interchanges with UPRR at Santa Paula.

Northwestern Pacific Railroad is a regional railroad that currently operates 62 miles of track between Schellville and Windsor and interchanges with the Union Pacific Railroad.

Santa Maria Railroad is a short line railroad that operates over 14 miles of track and interchanges with the UPRR in Guadalupe.

Sierra Northern Railway is a short line railroad that operates over 100 miles of track in Mendocino, Tuolumne, Stanislaus, and Yolo counties. Sierra Northern provides rail shipping to all of California through interchanges with the BNSF and UPRR.

West Oakland Pacific Railroad is a short line railroad that operates over 10 miles of industrial track in Oakland and interchanges with the UPRR.

Yreka Western Railroad is a short line railroad that operates 9 miles of track in Siskiyou County and interchanges with the UPRR and Central Oregon and Pacific Railroad (CORP) in Montague.

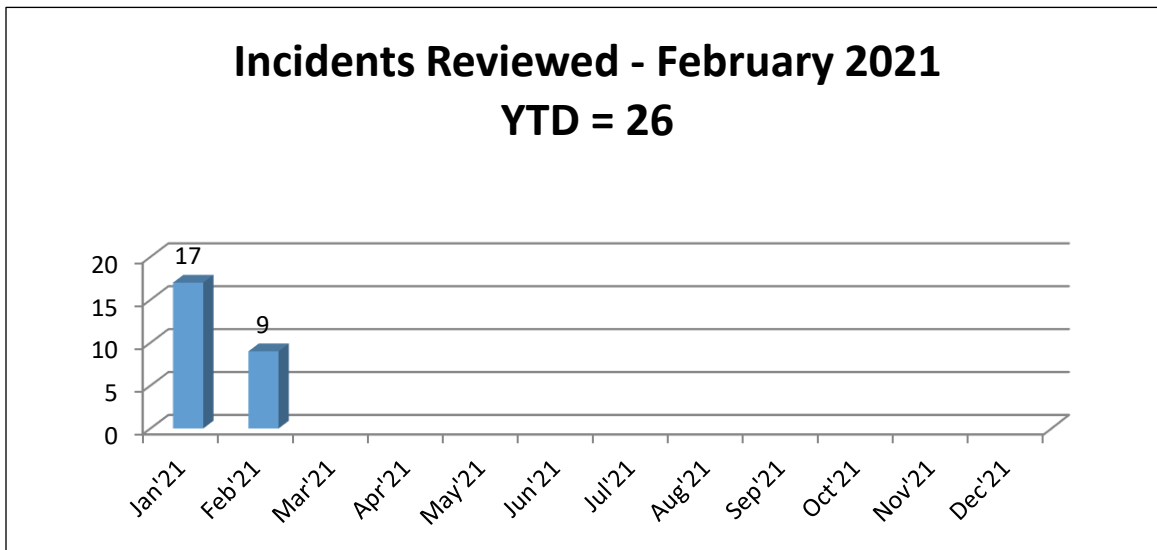
RAIL CROSSINGS AND ENGINEERING BRANCH – RCEB

In February 2021, the Rail Crossings and Engineering Branch (RCEB) completed the following:

	February Closed	Closed YTD
Crossing Incident Reviews	9	26
Safety Assessments/Quiet Zones/Reviews/Training/Operation LifeSaver Presentations	26	55
Proceedings, Resolutions and G.O. 88-B Reviews	5	16

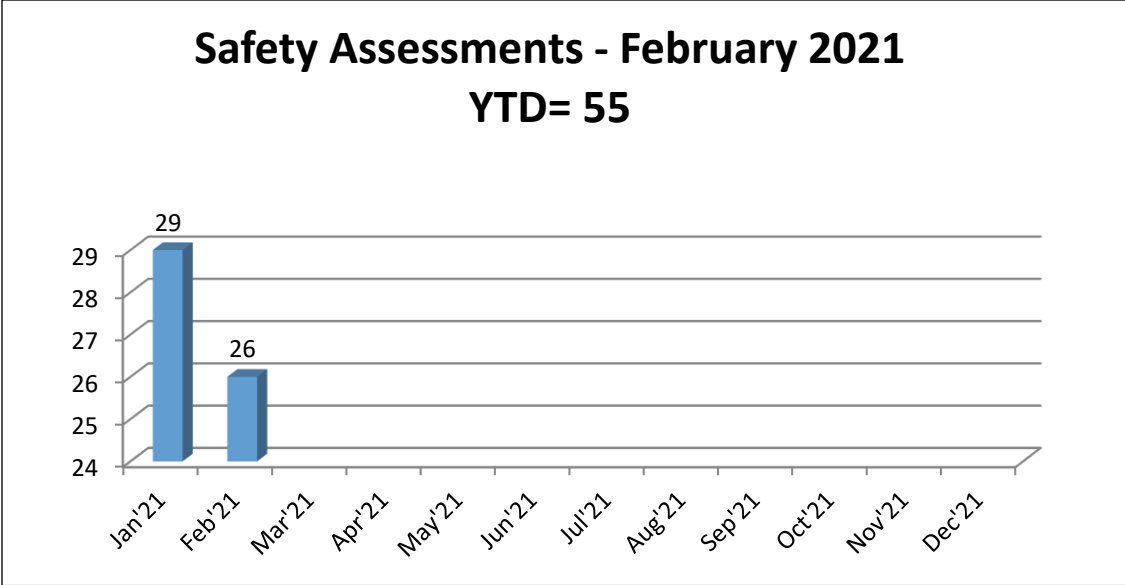
RAIL CROSSING INCIDENT INVESTIGATIONS

In February 2021, RCEB closed nine incidents at highway-rail at-grade crossings (crossings). These nine incidents resulted in two injuries and five fatalities.



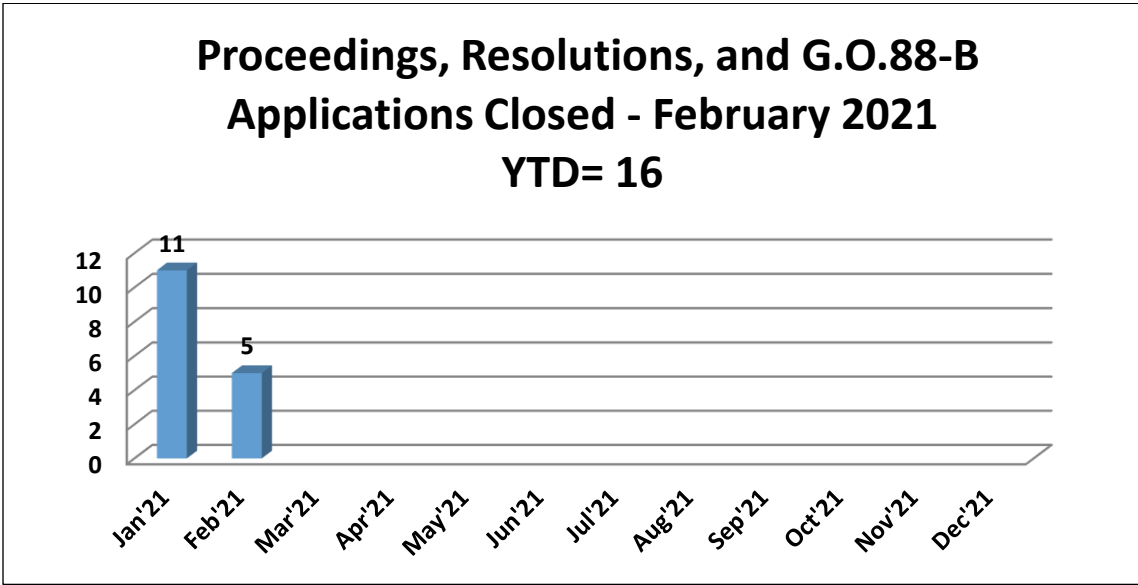
SAFETY ASSESSMENTS, QUIET ZONES AND REVIEWS

In February 2021, RCEB completed 26 rail-crossing safety assessments involving: communications, field inspections, meetings, quiet zone reviews, staff training, diagnostic reviews, and Operation LifeSaver presentations with railroads and local agencies. These activities review existing crossings and proposed changes to crossing warning devices.



PROCEEDINGS, RESOLUTIONS AND G.O. 88B REVIEWS

In February 2021, RCEB approved five General Order 88-B applications for changes to existing crossings.



RAIL TRANSIT SAFETY BRANCH – RTSB

In February 2021, the Rail Transit Safety Branch (RTSB) completed the following activities:

MAJOR AUDITS

- A Triennial Safety and Security Review of North [San Diego] County Transit District (NCTD) was conducted in August 2018. The security report and resolution have been approved by management and legal staff. A draft resolution of the safety report is under managerial review.
- A Triennial Safety and Security Review of San Francisco Municipal Transit Agency (SFMTA) was conducted in October 2018. The agency's 30-day review comments were received, and Staff have prepared a draft that is under managerial review.
- A Triennial Safety and Security Review of Sacramento County Department of Airports (SCDOA) was conducted in May 2019. The agency's 30-day review comments were received, and Staff have prepared draft Reports and Resolutions. Management, Legal and President Batjer's Office have reviewed and approved. The two items ST-231 and ST-232 are scheduled for the March 18, 2021 Commission meeting.
- A Triennial Safety and Security Review of the San Francisco Airport AirTrain (AirTrain) Automated People Mover (APM) was conducted in June 2019. The agency's 30-day review comments were received, and Staff have prepared a draft that is under managerial review.
- A Los Angeles Metropolitan Transportation Authority (LACMTA) Triennial Safety and Security Review was conducted in September 2019. A draft of the security report and safety report that will be subject to 30-day RTA review is being finalized by Staff for management review.

- The Bay Area Rapid Transit (BART) Oakland Airport Connector (OAC) Triennial Safety and Security Review was conducted in June 2019. The agency's 30-day review comments were received, and Staff have prepared a draft that is under managerial review.

ADMINISTRATIVE ACCOMPLISHMENTS

Utilities Engineer Transfer to Another Office: On February 15, 2021 Daniel Kwok transferred from the Los Angeles Office to the San Francisco Office and took over as the Designated Representative for the Bay Area Rapid Transit District.

Senior Utilities Engineer Supervisor – Los Angeles: The RTSB vacancy posted in Los Angeles Office closed and interviews of 3 candidates are scheduled via Webex for March 5, 2021.

Utilities Engineer – Los Angeles: The vacancy was posted in LA on February 12, 2021. It will close March 2.

Annual Submittals Required by FTA: RTSB management is preparing several documents required under Federal Transit Administration (FTA) regulations in 49 CFR Part 674 due annually by March 15th:

1. State Safety Oversight Agency Annual Report – Publicly available report to the Governor, the FTA, and the Board of Directors (or equivalent entity) of California Rail Transit Agencies (RTA) subject to FTA jurisdiction (those receiving FTA funding) on the status of the safety of each RTA operating in California. This report is known as the “SSOA Annual Report.” It is publicly available as it is posted on the CPUC web site. This report summarizes State Safety Oversight activities for Rail Fixed Guideway Transportation Systems (RFGTS) in California for calendar year 2020. It describes causal factors of accidents, a summary of triennial audits completed for the calendar year, the RTA's progress in carrying out Corrective Action Plans (CAP) arising from CPUC triennial audits, inspections, RTA internal audits, accident investigations and other sources. The report also describes the level of effort by CPUC Staff in carrying out its RFGTS oversight

activities, providing staff hours attributed to the various oversight activities. This year additional text describing the impacts relating to the coronavirus pandemic on each RTA was included.

2. RTSB Program Standard (procedures manual) Update - The proposed changes to RTSB Program Standard are not particularly substantive, but there are sections we added for clarification. We did document clean-up such as eliminating references to System Safety Program Plans since Public Transportation Agency Safety Plans (PTASP) are now the RTA safety plans, clarified several internal processes for Staff and cleaned up some formatting inconsistencies. Staff also added new sections to include information on our web-based accident reporting system and a section on our enforcement procedures.
3. FTA Annual Reporting – Using FTA’s web-based tool, the State Safety Oversight Reporting (SSOR) system, CPUC Staff submits information and data on the items listed below.
 - a. Updated RTSB Program Standard in item 2 above.
 - b. Evidence that each employee has completed FTA required training.
 - c. The Annual Report of SSOA for RFGTS in California, discussed in item 1 above.
 - d. Evidence that RTSB has reviewed and approved any changes to RTA PTASPs.
 - e. Certification that CPUC is in compliance with 49 CFR Part 674.

RSSIMS Replacement Project: The three rail branches (RCEB, ROSB, and RTSB) share a database called the Rail Safety and Security Information Management System (RSSIMS). RTSB is participating in activities to identify upgrades for the next version of the database.

Rail Inspection & Corrective Action Plan System (RICAPS): RTSB is working with CPUC’s Information Technology Services Division (ITSD) on developing a new on-line platform to automate the process for routing and tracking Inspection Reports and CAPs. The proposed system will allow both CPUC staff and RTA employees to submit, retrieve and manage the information in a centralized database, thereby greatly enhancing efficiency, speed, and

accuracy of tracking CAPs to minimize, mitigate, control, correct, or eliminate safety risks and hazards.

GENERAL ORDER AND RESOLUTION ACTIVITY

Proposed Revision to GO 143-B: RTSB management continues to work on drafting proposed changes to General Order 143-B “Safety Rules and Regulations Governing Light-Rail Transit.” The proposed rule is largely completed, and Staff is finalizing the Staff Report (to support Staff’s proposed rule changes and to be part of the OIR filing to open the proceeding.)

SAFETY CERTIFICATION AND OVERSIGHT OF RAIL TRANSIT AGENCY PROJECTS

AirTrain Extension Project: On August 10, 2017, Resolution ST-205 approved AirTrain’s Extension Safety Certification Plan (SCP). The project expands the existing AirTrain system to include a new Long-term Parking Garage Station and an additional in-line Hotel Station serving a future hotel. Several additional upgrades to facilities and equipment are part of the project. The project will have three Safety and Security Certification Verification Reports (SSCVR) as it has three phases. Project culmination and start of revenue service is anticipated to take place in 2020. RTSB management approved the SSCVR that allowed the Hotel Station (Phase 2) to begin revenue service in October 2019. All 42 cars have now been approved with line-of-sight communication upgrades. The estimated SCVR submittal for the Lot DD Station extension (Phase 3) is 1st quarter of 2021.

BART Communications Based Train Control (CBTC): BART entered a \$798 million contract with Hitachi Rail STS USA, Inc to design and build a modern CBTC system. The agency intends for this project to “greatly improve (its) train service.” The Project’s SCP was approved by the Commission via Resolution ST-206. The contractor executed Notice to Proceed on November 2, 2020. The Project has formed work groups and is preparing kickoff.

BART Traction Power System Improvements Project (TPSIP): Five sites have been identified for installation of new traction power substations to support the traction power system improvements portion of the Transbay Core Capacity Program. The two West Bay sites are Civic Center Station and Montgomery Street Station and have estimated completion dates by 2022. The three East Bay sites are in Oakland at Thirty Fourth Street, Concord at David Avenue and Minert Road, and Richmond at Yard East, with completion dates not yet estimated. An SCP was approved via Commission resolution proceeding (ST-239) in July 2020. The construction contract for the West Bay sites was issued Notice to Proceed in October 2020. East Bay sites are in the engineering design phase. Staff attends the project's monthly Safety and Security Review Meetings. Staff reviewed the West Bay sites design conformance checklists with addressed comments.

BART Irvington Station (IRV) Project: The Irvington Station Project includes construction of a new station halfway between the existing Fremont and Warm Springs / South Fremont stations. The estimated completion year is 2027. The Project is in the engineering design phase. The SCP was approved under Commission resolution proceeding (ST-240) in November 2020.

BART New Vehicle Procurement (NVP): BART is in the process of procuring 1,200 new rail vehicles. There are two types of new vehicles, D-Cars and E-Cars. D-Cars have an operator's cab while E-Cars do not. Upon submittal by BART, Staff reviews testing and certification documents for each group of cars prepared for service and verifies compliance with the testing and certification plan before authorizing the cars for revenue service. To date, RSTB management has certified and approved 287 vehicles for revenue service. Because of continuing intermittent communications loss with wayside equipment resulting in trains stopped on the mainline track, BART ceased accepting new vehicles until the vendor resolves that issue. The project contractor was Bombardier Transportation, but Alstom completed its acquisition of Bombardier Transportation on January 29, 2021.

BART Hayward Maintenance Complex (HMC) Project: This project is comprised of two phases. On November 16, 2018, RTSB management approved an element of the first phase of this

project, the Component Repair Shop, to commence operations. The Central Warehouse, also an element of Phase One, submitted SCVR on January 7, 2021, and RTSB management approved on January 29, 2021. Construction on the Hayward Maintenance Complex Phase II East Storage Yard began on March 1, 2019. This yard will provide a storage venue for BART revenue vehicles and provide egress to the BART A1 and A2 Mainline Tracks and the Hayward Test Track. Due to funding constraints, BART has sub-divided the HMC Phase II Project into three separate contracts. At the end of the Hayward Maintenance Project, BART will submit a final SSCVR that will cover both phases.

Central Subway Project (CSP): SFMTA is excavating 1.7 miles of tunnel to extend the Muni Metro Third St. Line to provide a direct transit link between the Bayshore and Mission Bay areas to SoMa, downtown San Francisco, and Chinatown. SFMTA expects the construction to be finished by the end of Spring 2021 and to start revenue service the following year in the Spring of 2022. The modified substantial completion timeframe is June 2021. Revenue service is projected to begin in early Summer 2022. Chinatown Station is about 85% complete. As part of this project the Automatic Train Control System (ATCS), radio system, and vehicle systems are scheduled to begin running test trains CSP plan to issue the SVCR to CPUC in Spring 2022.

LACMTA P3010 New Vehicle Procurement Project: All 235 new P3010 Light Rail Vehicles (LRV) have been delivered to LACMTA, with the shipment of the final rail car occurring on January 7, 2021, at the new maintenance yard for the Crenshaw/LAX Transit Project (Division 16). These vehicles are intended to expand passenger capacity for the recently completed projects (Expo Phase 2 and Foothill Extension Phase 2) and the future LAX/Crenshaw line currently under construction. As cars are prepared for service, Staff will recommend official approval to RTSB management after a successful review of the Car History Books (testing documentation) in person. To date, RTSB management has certified for revenue service 185 vehicles. The cars are used on the A Line (Blue), C Line (Green), E Line (Expo), and L Line (Gold). They have also been used for testing on the Crenshaw/LAX Line. Metro is preparing to process the remaining P3010 vehicles for CPUC acceptance.

LACMTA HR4000 Heavy Rail Vehicle Procurement: LACMTA is in the process of procuring a base order of 64, with options for up to 282 new heavy rail vehicles (HRV) to provide for the future expansions of Regional Connector and Purple Line Extensions, and to replace the aging HRV fleet operating on the Red Line subway. Resolution ST-185 approved the procurement option. Because of COVID-19 the arrival of pilot cars will be postponed from December 2020 to June 2021. As a result, the specification conformance checklist review, a major component of the safety certification process, will also be postponed. The design checklist review has been completed, but since it will be a long period before the specification checklist is ready for review, LACMTA will send project updates every 3 months to RTSB Staff. Based on the last update in the FTA Quarterly Review Meeting on December 2, 2020, the arrival of cars in Los Angeles is still expected to be June 2021 and China, US, and European based suppliers are back online.

LACMTA Regional Connector Project: Project construction is 70% complete with roof decks being placed on the excavated underground stations. Trackwork installation is well underway. The wye junction that will connect the Blue/Expo and Gold Lines is nearing the end of the concrete phase. The existing Little Tokyo station was closed in October 2020 and will be demolished and rebuilt in a process that will take approximately 22 months. Bus bridges have been implemented to take passengers around this major construction work zone. Staff regularly attends LACMTA's monthly Fire Life Safety & Security and Safety & Security Certification Review Committee meetings.

LACMTA D (formerly Purple) Line (Westside) Extension Project: LACMTA is currently extending the Purple Line. The Westside D Line Extension, previously named the Westside Subway Extension, extends service from the terminus at Wilshire/Western Station to Westwood (UCLA and Veteran's Administration Hospital). This extension will consist of nearly nine miles of heavy rail subway and seven stations. The planned revenue service years for D Line Segments 1, 2, and 3 are 2023, 2025, and 2027. For Segment 1, the Tunnel Boring Machines (TBMs) have completed three out of four miles and the three underground stations

are fifty-percent complete. A TBM for Segment 2 launched from Century City/Constellation Station on April 30, 2020 and will continue eastbound for approximately 2 years before meeting with Segment 1. TBM 1 for Segment 3 began mining into the headwall on October 23, 2020. Staff is currently working with project teams on all 3 segments to develop and audit completion of the safety certification design conformance checklists.

LACMTA/MGLFECA Foothill Extension Phase 2B: LACMTA and Metro Gold Line Foothill Extension Construction Authority (MGLFECA) are working with staff to update and revise the project SCP which was originally approved via Resolution ST-194 on January 19,2017. The Phase 2B alignment is from the current terminus of LACMTA Gold Line, Azusa Station, to the City of Montclair. It will traverse six cities with six new stations on 12.3 miles of light rail transit (LRT) at-grade track. In August 2019, the Foothill Gold Line Construction Authority awarded the Design Build contract to the Kiewitt Parsons Joint Venture. Due to funding issues, the current terminus of the alignment will be changed to Pomona Station with a contract option to build to Montclair if the Foothill Construction Authority can secure additional funding by September 2021. Heavy construction of this project commenced in July 2020. Estimated completion of the Pomona segment is 2025. The contract option portion from Pomona to Montclair would be on a shared corridor with Metrolink. To date, 48 of 49 grade crossings submitted for the segment from Glendora to Montclair have been approved by the Commission.

LACMTA Crenshaw/LAX Corridor Project: LACMTA is constructing a new LRT line through the Crenshaw/LAX Corridor. The Line will travel 8.5 miles from the existing Metro Exposition Line at Crenshaw and Exposition Boulevards to the Green Line and will serve the cities of Los Angeles, Inglewood, El Segundo, and portions of unincorporated Los Angeles County. The expected substantial completion date of winter 2020/2021 is currently postponed. Substantial completion is currently anticipated to occur in 2021 and revenue service is expected to commence later the same year. Staff continue to attend pertinent System Integration Tests in the field, and meetings related to safety certification.

LACMTA New A (formerly Blue) Line Project: LACMTA is making improvements to its A Line that runs from Downtown Los Angeles to Long Beach. The Blue Line was renamed the “A Line” prior to opening. The “A Line” re-opened to the public on November 2, 2019. Staff continue to monitor the project as there remains one pedestrian crossing under construction at the Willowbrook/Rosa Parks Station. On April 22, 2020 CPUC issued a GO-88 authorization for modifications to warning devices on the eastern half of the southern pedestrian crossing. On the western half, Union Pacific Railroad (UPRR) has constructed their crossing equipment, and LACMTA will interconnect their equipment with the UPRR system. The crossing was subject to system integration testing and for routes that did not meet minimum warning times, a positive stop is required via Metro Rail Operations Bulletins (MROB). Test results were sent to RTSB and RCEB Staff for review and Staff performed an inspection of the crossing on October 6, 2020. RTSB and RCEB Staff requested LACMTA to determine a permanent solution to meet minimum warning times at the southern pedestrian crossing, instead of continuing the MROBs. LACMTA shared a pros and cons list of their proposed solutions with RTSB Staff during a meeting on December 17, 2020. They are internally evaluating another possible solution and will keep RTSB apprised. Additionally, tests for Division 11 Blue Line Yard Train Control Upgrades, the last phase of New Blue, were scheduled to begin on October 24, 2020 but have been postponed. LACMTA will notify RTSB Staff once the final schedule is determined. LACMTA will provide Staff with Division 11 test report submittals and Staff will be invited to witness the testing.

Los Angeles Streetcar: The Los Angeles Streetcar is a project that is advancing under the Los Angeles County Measure M funding. The preliminary design is proceeding despite the lack of LACMTA’s identification for near term funding. Moving into 2021, Los Angeles Streetcar will continue to engage with the private sector to explore potential Public Private Partnership opportunities and collaborate with public sector partners like LA Metro and LADWP; the main goal is to secure the remaining funding needed.

LAWA Automatic People Mover Project: Los Angeles World Airports (LAWA), the governing body of Los Angeles International (LAX) and Van Nuys airports, is developing a multi-billion-

dollar upgrade to the ground transportation system at LAX. Of the six new stations, three will connect new rental car, airport parking and Metro facilities to the airline terminals. Those in the Central Terminal Area will provide fast and easy connections to nine airline terminals with a pedestrian walkway system. The Project's Design Criteria Conformance Checklist (DCCC) and Subsystem Hazard Analyses (SSHA) will be finalized in the coming months and will be reviewed in the Safety Certification Review Committee (SCRC), a subcommittee of the Safety and Security Review Committee (SSRC). The first two-car train is anticipated to arrive in June 2021. Staff continue to participate in regularly scheduled safety certification meetings and contingency planning meetings.

Orange County Transportation Authority (OCTA) OC Streetcar Project: The OC Streetcar (OCSC) project consists of 4.15 miles of track between the Santa Ana Regional Transportation Center in the City of Santa Ana and the Harbor Boulevard/Westminster Avenue intersection in the City of Garden Grove. The project includes the procurement of 8 Siemens S700 LRVs. Revenue service is currently scheduled to commence in October 2022. Staff continues to attend the SSRC, Construction Progress, and Fire Life Safety Committee (FLSC) meetings. The rail facilities construction continues with construction at about 42% completion.

Sacramento Riverfront Streetcar (SacRT): The original project has been significantly reduced to about 1.4 miles from the original 4.4 miles, and the project will be undertaken by SRTD, who will be the grantee and operator. Development funding and any future grants will go to SacRT. The reduced project that will extend SacRT service across the Sacramento River into West Sacramento will be an extension of the SacRT system. The revised project is still under development and both cities are discussing their contributions to the project.

Sacramento Regional Transit District (SRTD) LRV (Light Rail Vehicle) Procurement Project: The first LRV is scheduled to be delivered to SRTD late August 2022. RTSB expects a Safety Certification Plan to be submitted early 2021.

Sacramento Regional Transit District (SRTD) Operations Control Center (OCC): This project will relocate the OCC from Metro to downtown. RTSB expects a Safety Certification Plan to be submitted early 2021.

San Diego Trolley, Inc. (SDTI) Mid-Coast Corridor Project: The San Diego Metropolitan Transit System's (MTS) Mid-Coast Corridor Project is a 10.9-mile double-track light-rail transit line that begins at the Old Town Transit Center in San Diego. The project will provide future SDTI revenue service to the Linda Vista, Clairemont, University of California at San Diego (UC San Diego) and the University City areas. Construction started in 2016 and revenue service is planned to begin late 2021. To date, no construction delays are anticipated. Staff has been participating in the Bi-Weekly Virtual Rail Activation Committee Meetings and the weekly Start-up Integrated Test Procedure (SITPRO) meetings for the Mid-Coast Project. On January 28, 2021, Staff met with SDTI and contractors to perform an on-site inspection of the "right-of-way" from La Jolla Village Square Station to La Jolla Village Drive grade crossing to verify installation of Overhead Contact System (OCS), track, switch, and signal components.

San Diego Light Rail Vehicle Procurement: SDTI is procuring 45 LRVs for the Mid-Coast Corridor Project. The procurement process began January 2018 with an expected schedule completion and acceptance of all 45 LRVs by June 2021. As Siemens delivers cars on-site at the SDTI Yard, they are undergoing commissioning and dynamics tests. Staff is participating in the acceptance testing throughout the procurement process. To date, 44 cars have been approved for revenue service.

SFMTA LRV4 Procurement to Expand and Replace the Rail Fleet: SFMTA provided the LRV4 Coupler Shear Pin Update Summary as summarized below:

Having passed static and fatigue tests, a set of new design shear pins was instrumented with strain gauges and installed in a non-revenue service test vehicle and driven to accumulate mileage and verify strain conditions. The instrumented set was then removed and sent for lab analysis which verified by magnetic particle inspection that no cracks had initiated. Additional fresh sets of new design shear pins were installed on the test vehicles with mileage accrued and

magnetic particle testing verifying no crack formation. Six sets of new shear pins have accumulated ever-increasing mileage and been verified for no crack formation. Long-term performance will continue to be monitored with an additional shear pin swap and magnetic particle test conducted at 12,000 miles and 24,000 miles. SMI and SFMTA agree that there is significant improvement over the original design and will submit the new shear pin design for review and concurrence to the LRV4 Safety Certification Committee for use in revenue service.

CORRECTIVE ACTIONS PLANS

General Order 164-E defines Corrective Action Plan as a plan developed by a Rail Transit Agency that describes the actions the RTA will take to minimize, mitigate, control, correct, or eliminate risks and hazards, and the schedule for implementing those actions.

ACCIDENT INVESTIGATIONS

Per General Order 164-E, the Commission must be notified within 2 hours by rail transit agencies of accidents if they include one of the following: a fatality (occurring at the scene, or within 30 calendar days following the incident); one or more persons suffering “serious injury” (as defined in GO 164-E); a collision involving a rail transit vehicle and another rail transit vehicle, or individual; a derailment of any rail transit vehicle at any location, at any time, whatever the cause; an evacuation for life safety reasons; or a runaway train. “Courtesy notices” are not included in these statistics.

California Public Utilities Commission | Rail Safety Division

STATISTICS SUMMARY

Investigations	Feb 2021	YTD 2021
Accidents Reported	17	42
Accident Investigations Closed	27	45
Complaints Investigated	0	0
Rail Transit Inspections	16	29
Triennial Review	0	0

Corrective Action Plans	Feb 2021	YTD 2021
New Corrective Action Plans	4	10
From Triennial Review	0	0
From Incidents	1	3
From Internal Safety/Security Audits	0	0
From Rail Transit Inspections	3	7
From Hazard Management	0	0
Closed Corrective Action Plans	18	27
From Triennial Review	0	0
From Incidents	6	6
From Internal Safety/Security Audits	1	1
From Rail Transit Inspections	11	20
From Hazard Management	0	0

ONGOING DATA / TRENDS

