

Safety and Enforcement Division



Monthly Performance Report

December 2017

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THE YEAR IN REVIEW

Along with the continuing effort on incorporating risk management in ratemaking proceedings, 2017 was marked by several substantive Safety & Enforcement Division (SED) initiatives focused on enforcing regulations and creating new policies to improve utility safety in electrical and natural gas operations.

TOP SAFETY ISSUES

2017 Fire Investigations Prove Value of SED/CAL FIRE Coordination

The CPUC's Safety & Enforcement Division has worked closely with the California Department of Forestry & Fire Protection (CAL FIRE) on issues related to the deadly fires in Northern California that have come to be known collectively as the "October Fire Siege". The fires began on Sunday, October 8, 2017 and quickly spread throughout the counties north of San Francisco. During the October Fire Siege CAL FIRE responded to over 250 wildfires, including 21 major wildfires that, in total, burned over 245,000 acres. At the fires peak over 11,000 firefighters battled the destructive fires. This does not include the thousands of support staff, local law enforcement, National Guard and other agencies called upon to assist during this event. Over 100,000 people were forced to evacuate their homes and businesses. An estimated 8,900 structures were destroyed, and 44 lives were lost.

A second wave of fires hit Southern California in early December, with the Thomas Fire becoming the largest fire in California's recorded history. As of January 1, 2018, the Thomas Fire consumed 281,893 acres and resulted in destruction of 1,063 structures, damage to 280 structures, and one fatality.

Under the terms of a memorandum of understanding (MOU) for joint operations signed in 2017, the CPUC and CAL FIRE coordinated incident response and their separate investigations into the causes and circumstances of the fires. The CPUC's Electric Safety & Reliability Branch continues investigating any role that utility equipment may have played in the fires, potential violations of safety regulations, and the restoration of service efforts for both electric and telecommunications companies. The Commission has responded to dozens of Public Records Act requests, making every effort to provide timely and transparent access to relevant documents, without impairing a fair and accurate investigation.

Fire Safety Map and Enhanced Regulations Near Completion

Nearly two years of collaborative effort between the CPUC, CAL FIRE and representatives of utilities and stakeholder groups has resulted in an updated and more technically sound "Fire Map" for the state of California that delineates areas of highest risk of wildfires, based on

weather, wind, and the effects of drought. Associated with the new map, which significantly expands the risk area in Northern California, the Commission in December approved dozens of recommended changes to electric General Order 95 to tighten regulations for vegetation management, inspections and tree-line clearances in high risk areas.

CPUC Issues \$8.3 Million Penalty against PG&E in Butte Fire

In April, the CPUC issued two SED staff Citations totaling \$8.3 million to PG&E for several violations related to the Butte Fire of September 2015 that burned 70,868 acres, destroyed 921 structures and resulted in two civilian fatalities and one serious injury. SED's investigation found that a gray pine tree contacted a PG&E 12-kilovolt (kV) overhead electric conductor and caused an ignition that started the fire. The CPUC issued an \$8 million citation to PG&E for violating General Order 95, Rule 31.1, for failing to maintain its 12 kV overhead conductors safely and properly. The second citation was issued to PG&E for \$300,000 for failure to timely report to the CPUC that PG&E's facilities may have been linked to the ignition of the Butte Fire. PG&E additionally was cited for failing to maintain the minimum required clearance around the 12 kV conductor.

Natural Gas Leak Abatement Program Institutes Landmark Effort to Stem Methane Emissions

The Commission on June 15 adopted a landmark program for methane leak reporting and reduction activities on the state's natural gas system. The decision formalized annual gas leak reporting and instituted the use by gas companies – utilities and storage operators – of 26 Best Practices for leak detection, quantification and repairs. SED staff led the consensus effort to develop the best practices portfolio as well as guidelines for Compliance Plans that will be due in March 2018.

Building Close Partnership for Safety Assurance Activities at Natural Gas Storage Facilities

One year after Governor Jerry Brown issued an Emergency Declaration associated with the uncontrolled release of natural gas from a damaged well at Southern California Gas Company's Aliso Canyon gas storage facility, the CPUC continues its investigation into the root cause of the incident. The Commission also keeps close coordination with the Department of Oil, Gas and Geothermal Resources (DOGGR) under an MOU signed in 2016 to ensure that the resumption of storage activities at Aliso Canyon is conducted to ensure both safety of operations and reliability of natural gas service in the state. In response to passage of SB 380, the Commission in February opened an investigation OII 17-02-002 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon storage while still maintaining energy and electric reliability for the region. A second investigation I.17-03-002, is looking into whether the extended curtailment of operations at Aliso Canyon should lead to a determination that expenses associated with the outage should be disallowed from SoCal Gas' rates.

PG&E Safety Culture Investigation Leads to Host of Recommendations

The CPUC in May 2017 released the results of a year-long investigation into whether and how well Pacific Gas & Electric has been in building a “culture of safety” into its operations and corporate governance practices. The report by independent consultant NorthStar Consulting finds mixed results and more work ahead is needed to ensure the safety of the public, utility employees and contractors.

Of nearly 60 recommendations made by NorthStar, some of the highest priorities are to: Add safety to the list of qualifications for members of the Board of Directors; Reassess, justify and stabilize the many safety culture change initiatives that PG&E has introduced in the past six years, and; Develop a comprehensive safety plan to address culture, employee health and wellness, contractor safety, employee safety and public safety. The Commission has ordered testimony to be filed in early 2018 on the Safety Culture report and how PG&E is responding to the NorthStar recommendations.

PG&E General Rate Case Settlement Adopts Strong Safety Focus

In May 2017, the Commission approved, with some modification, a comprehensive settlement of issues in the Pacific Gas & Electric TY 2017 General Rate Case (D.17-05-013). PG&E’s total authorized 2017 revenue requirements for its gas distribution, electric distribution, and electric generation lines of business will be \$8 billion. The settlement agreement affirmed PG&E’s proposed spending for safety and risk-reduction efforts that were highlighted in the SED Risk Assessment & Safety Advisory (RASA) staff evaluation issued in March 2016. The GRC decision included a substantial increase in safety reporting requirements and directed SED to ensure utility adherence to safety spending accountability and safety performance metrics reporting to prove the effectiveness of safety expenditures

Long Beach Investigation Settled

In September 2017, the Commission approved a settlement agreement reached between SED’s Electric Safety & Reliability Branch (ESRB) and Southern California Edison to resolve the investigation fires and explosions in underground electric vaults that caused power outages in Long Beach for several days in the summer of 2015. ESRB conducted a full investigation of the outages and prepared an investigation report that led to an OII, and ultimately a settlement. SCE will pay \$4 million in penalties and agreed to spend \$11 million for enhanced safety programs.

Physical Security of Electric Substations Brings IOUs and Munis Together

SED’s Risk Assessment group completed a whitepaper that updated the Commission’s body of knowledge about improving the physical security of energy-related critical infrastructure.

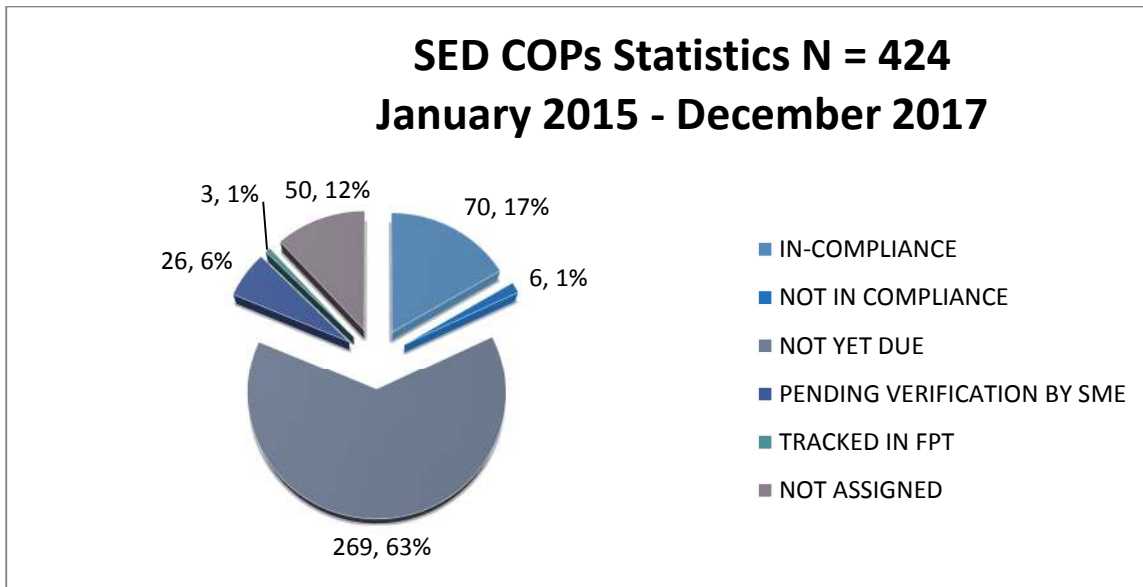
As part of the Rulemaking into Physical Security of Electric Assets (R.15-06-009), SED led a consensus initiative that resulted in a Joint Utility Proposal for assessing security needs at potentially vulnerable electric distribution substations, and a set of guidelines for developing third-party vetting of security plans to improve resistance to physical attacks and resiliency in response. The effort notably involved voluntary compliance by municipal utilities and other publicly-owned utilities (POUs), which will obtain compliance approval from their respective governing bodies. Commission consideration of the Joint Utility Proposal is pending.

COMPLIANCE WITH ORDERING PARAGRAPHS (COPS)

Through December 31, 2017, SED shows 424 total entries in the COPS system; with 70 reaching compliance (17%), 269 (63%) not yet due for compliance, and 6 (1%) currently remaining out of compliance. The remaining 79 (19%) are either pending verification or yet to be assigned.

During December 2017, there were 12 new OPs recorded to the COPS database for the Safety & Enforcement Division. With the end of the year, SED staff revisited the status of all compliance orders, accounting for the substantive changes in the survey for Safety-related ordering paragraphs.

Note, the category of “tracked in financial payment tracker” (FPT) has been verified and has been deemed “in compliance” but is listed separately in the COPS tracker.



NATURAL GAS SAFETY PROGRAM

Major Accomplishments for 2017

Federal Evaluation Marks Continued Progress on Gas Safety Issues

For the third consecutive year, the annual federal audit of the Safety & Enforcement Division’s pipeline inspection program resulted in nearly across-the-board improvements in scores for state program evaluation. The safety inspection and enforcement program under SED’s Gas Safety & Reliability Branch (GSRB) is evaluated yearly by the Pipeline and Hazardous Materials Safety Administration (PHMSA). Draft results for calendar year 2017 show a score for program evaluation of 97.9%, continuing the trend of improvement since 2013.

The PHMSA evaluation also made these key findings California’s Pipeline Safety Assurance:

- California leads the nation in pipeline safety enforcement;
- California has the largest gas distribution system in the nation and fifth largest transmission system;
- The CPUC is recognized as a leader in reducing the risks associated with “grandfathered” pipe under the pressure test/replacement requirements of PU Code § 958.

Other Notable Accomplishments

- For the first time in the GSRB gas safety inspection program, GSRB conducted 19 General Order 112-F inspections using the Department of Transportation - Pipeline and Hazardous Materials Safety Administration’s (PHMSA) Inspection Assistant Program.
- Staff citation of Southwest Gas Company for the amount of \$200,000 for violation of Title 49, Code of Federal Regulations, §192.1007(c).
- Met the PHMSA inspection person day requirements.

STAFF CITATION PROGRAM

Citation Number	Utility	Amount	Violations	Date Cited	Appealed	Status
D.16-09-055 G.17-05-001	Southwest Gas	\$ 200,000	192.1007 (c)	6/1/2017	Yes	SWG Appealed Citation, SED has an executed Settlement Agreement with SWG Proceeding Commission Approval
Total Cited 2017		\$ 200,000				

INSPECTIONS

2017 Inspections: GSRB has conducted 74 scheduled inspections in 2017 and has completed the final inspection report for 64 of these 74 inspections during 2017.

INCIDENT INVESTIGATIONS

As of December 31, 2017, GSRB Staff received 303 incidents year to date. 160 of the 167 (96%) of the 2016 incident investigations are completed. Metrics on 2017 Incident Investigations:

TOTAL reported in 2017	303	Percent
Open	120	40 %
Closed	183	60 %

The CY 2017 incidents¹ are categorized as follows:

- 175 – Level 1 incidents
- 110 – Level 2 Incidents
- 11 – Level 3 Incidents
- 7 – Level 4 Incidents

UTILITY SELF-IDENTIFIED VIOLATION (SIV) INVESTIGATIONS

At the end of each year, the SIV process owner will conduct an annual review, which includes a trend analysis of systemic issues, determination of investigation effectiveness, and possible revision of investigation criteria. There were no self-identified violations reported in December.

NATURAL GAS RELATED PROCEEDINGS

- **Distribution Record Keeping (I.14-11-008) (Commissioner Peterman/Lirag) (Advocacy):** Decision 16-08-020 was issued on August 18, 2016, which ordered Pacific Gas and Electric to pay a fine of \$25,626,000 for several violations of General Order 112 and the Public Utilities Code. The decision also ordered PG&E to convene, support and report no later than 120 days after the effective date of the order a meet-and-confer process to develop additional remedial measures necessary to address the issues identified in the decision. Staff from GSRB attended two meet-and-confer sessions and submitted comments on PG&E's draft compliance plan, which was filed in the docket on December 16, 2016. Though closed by the decision, the proceeding was reopened based on SED's pending application for rehearing submitted on September 26, 2016. On October 26, 2017, the Commission issued its final decision (D.17-10-023) denying SED's application for rehearing, and modifying D.16-08-020 to correct typographical errors. This proceeding is now closed.

¹ Level 1: The incident did not result in injury, fatality, fire or explosion. Level 2: The incident did not result in injury, fatality, fire or explosion. The incident may have been reported due to Operator judgment. Level 3: The incident resulted in a release of gas but the incident did not result in injury, fatality, fire or explosion. Level 4: The incident resulted in injury, fatality, fire or explosion caused by release of natural gas from the Operator's facilities.

- **Gas Safety OIR (R.11-02-019) (Commissioner Guzman Aceves/ALJ Kersten) (Advisory):** The proceeding amended General Order GO 112-F, made fully effective no later than January 1, 2017. R.11-02-019 was closed in June 2015, however, it was re-opened after various applications for rehearing were filed by intervenors including the Utility Workers Union of America, the Office of ratepayer Advocates and the City of San Carlos. In February 2017, D. 17-02-015 disposed of a joint rehearing request from the San Carlos and ORA. In addition, Pacific Gas and Electric Company filed a petition to modify Decision 15-06-044 on January 31, 2017, on issues related to cost recovery. Disposition of PG&E's petition and UWUA's application is pending. On August 11, 2017, SED filed a subsequent petition to modify D. 15-06-44, seeking to conform GO 112F to more stringent federal regulations.
- **Mobile Home Parks Pilot Program (Implementing D.14-03-021) (ALJ Semcer/Commissioner Rechtschaffen):** This decision established a three-year pilot program authorizing each California investor-owned utility to convert 10 percent of master-metered gas and/or electric Mobile Home Park spaces within its operating territory to direct utility service. The Pilot Program began on January 1, 2015, and will continue through 2017. San Diego Gas & Electric Company (U902M) filed A.17-05-008/ A.17-05-007 for Approval to Extend the Mobile Home Park Utility Upgrade Program. Program will now be extended.
- **Citation Program OIR (R.14-05-013) (President Picker/ALJ Burcham) (Advisory):** Decision 16-09-055 was issued on September 29, 2016. Some key points are listed below:
 - An administrative limit of no more than \$8 million for each citation.
 - Utility reporting of self-identified potential violations is voluntary.
 - Utilities need not notify city and county officials of a self-identified potential violation unless staff requires it.However, the status of R.14-05-013 became "reopened" when on February 21, 2017, Senator Jerry Hill issued a petition for modification, requesting that the Commission modify the decision so as to keep in place, rather than weaken, the mandatory reporting requirements that were imposed under ALJ-274. In March, several parties filed comments to Senator Hill's request, and Hill filed reply comments in April. The matter is pending.
- **Pipeline L-1600 Replacement (A.15-09-013) (Commissioner Randolph/ALJ Kersten) (Advisory):** The Pipeline Safety & Reliability Project involves replacing existing Line 1600 with a new and larger gas transmission pipeline (Line 3602). The goal is to address the pipeline safety requirements for the existing Line 1600 and expand the capacity of the SDG&E's gas transmission system. On December 15, 2017, all parties submitted their Reply Briefs on Phase 1 issues of the proceeding. On December 20, 2017, ALJ's ruling was filed to set aside submission and reopening the Record to enter Safety and Enforcement Division (SED) Advisory Opinion regarding Scoping Memo Supplemental Question A and Applicant's response to SED Data Request into the Record; and to take supplemental testimony. Filing date for supplemental briefs on Supplemental Question A was extended to January 19, 2018. Also, filing date for supplemental reply briefs was extended to February 2, 2018.

ELECTRIC SAFETY AND RELIABILITY PROGRAMS

Major accomplishments in 2017

Reorganization: The Electric Safety and Reliability Branch (ESRB) was reorganized in August by combining the work of the Electric and Communication Facilities Safety Section with the Electric Generation Safety and Reliability Section. Rather than two sections being organized by type of facilities (a statewide Generation section and a statewide Electric and Communications Facility section), the reorganized ESRB has a Northern section and a Southern section which are both responsible for the safety of electric and communication facilities and power plants. There will be a transition period, with a need for cross-training staff and other steps to reorient work to more of a geographic basis.

Workforce: ESRB has a major accomplishment of filling a total of 16 vacancies: a Program and Project Supervisor, three Senior Utilities Engineer (SUE) Supervisors, six SUE (Specialists), and six Utilities Engineers (UE). These highly-qualified engineers come from a wide range of background and discipline and will be integral to ESRB in achieving its mission-critical goals. ESRB will tap into this newfound talent and expertise as it welcomes them onboard, and will continue its hiring process to fill nine additional UE positions, a Public Utilities Regulatory Analyst (PURA) V position, and an Associate Governmental Program Analyst position. ESRB's goal is to become fully-staffed in 2018.

Wildfire Mitigation Program: Another achievement that ESRB is proud of beginning this year is forming the Wildfire Mitigation Program following the enactment of SB 1028 which requires electric utilities and the CPUC to take additional steps in order to minimize the risk of catastrophic wildfires caused by electric conductors and equipment. ESRB has started the Wildfire Mitigation group, has already hired two SUE (Specialists) and in the process of filling another UE position to fully implement and meet the new requirements of this program.

Pacific Gas & Electric's 2017 Fire Siege: In October 2017, a series of wildfires devastated many counties in Northern California. At the peak of the fires, there were 21 major wildfires that, in total, burned over 245,000 acres, and 11,000 firefighters battled the destructive fires that at one time forced 100,000 to evacuate, destroyed an estimated 8,400 structures, and sadly, took the lives of 44 people. SED investigatory teams have been assigned and have visited the sites of affected areas to examine evidence related to PG&E's facilities. SED is currently working closely with CAL FIRE to investigate PG&E's and communications companies' compliance with the Commission's safety rules.

Southern California's 2017 Fires: In December 2017, a series of wildfires devastated many areas in Southern California. Specifically, the Thomas Fire mostly in Santa Barbara and Ventura counties, which burned more than 281,000 acres, resulted in the death of a firefighter, and became one of California's biggest fires. SED investigatory teams have been assigned and have visited the sites of affected areas to examine evidence related to SCE's facilities. SED is currently working closely with CAL FIRE to investigate SCE's compliance with the CPUC's safety rules.

ELECTRIC AND COMMUNICATIONS FACILITY PROGRAM

In December 2017, Electric Safety and Reliability Branch:

- Received five electric incident reports and closed 12 previously reported electric incident investigations;
- Investigated 15 customer safety and reliability complaints;
- Issued 12 Notice of Violation letters/reports.

Metrics for Facility Incident Investigations as of December 31 , 2017

Electric and Communication Facilities	Level 1	Level 2	Level 3	Level 4	Total ²
Total open incidents	8	13	64	39	124
Total incidents reported in 2017	13	20	64	34	131
Total incidents closed in 2017	14	28	29	35	106
Total open 2017 incidents	8	10	56	27	101
Incidents reported in December 2017	1	1	2	1	5
Incidents closed in December 2017	1	4	5	2	12

ELECTRIC AND COMMUNICATIONS FACILITY SAFETY: PROCEEDINGS

- **Investigation into Long Beach Incident (I.16-07-007) (President Picker/ALJ Cooke)(Advocacy):** Decision 17-09-024 adopting Settlement Agreement between Southern California Edison and the Safety and Enforcement Division was approved on September 28, 2017. Under the settlement, SCE will pay a \$4 million penalty and spend \$11 million on various system enhancement projects intended to reduce the chance of public injury, reduce the risk of future system failures, and to improve the utility’s operational awareness and network maintenance. ESRB is currently monitoring SCE’s work to ensure compliance with the settlement agreement.
- **Creation of a Shared Database or Statewide Census of Utility Poles and Conduit (R.17-06-028); Communications Provider Access to Poles (I.17-06-027); Competitive Local Exchange Carrier Wireless Facilities on Poles (R.17-03-009) (Commissioner Picker/ALJ Mason/ALJ Kenney)(Advocacy):** On June 29, 2017, the CPUC voted to consolidate R.17-03-009 with the new R.17-06-028 and I.17-06-027. ESRB staff will be advocacy in the consolidated proceeding. ESRB staff attended the December 5 PHC to discuss the scope and schedule of the proceeding and address questions raised by ALJ Mason and President Picker.

² Level 1: A safety incident that doesn’t meet Level 2, 3, or 4 criteria. Level 2: Incident involved a power interruption not due solely to outside forces. Level 3: Incident involved damage estimated to exceed \$50,000 and caused, at least in part, by the utility or its facilities. Level 4: Incident resulted in a fatality or injury requiring hospitalization and that was caused, at least in part, by the utility or its facilities.

- **Fire Safety Rulemaking (R.15-05-006) (President Picker/ALJ Kenney/ALJ Kao) (Advocacy):** D.16-05-036 adopted Fire Map 1, which depicts areas of California with an elevated hazard for the ignition and rapid spread of fires. In January 2017, D.17-01-009 adopted a work plan for completing Fire Map 2 and developing potential new fire safety rules. In December 2017, the Commission issued D.17-12-024 which adopted certain fire safety regulations within the High Fire-Threat District. In addition, at the request of the assigned ALJs, the Peer Development Panel (PDP) filed and served additional materials providing assessments and breakdowns of the final IRT-approved map product. Also, the PDP created, distributed, and provided notice of availability for four (4) electronic storage media (ESM) that contain specified information about the IRT-approved map. ESRB is currently updating GOs 95, 165, and 166 with the new adopted rules from D.17-12-024.
- **Proceeding to Consider Amendments to GO 95 (R.17-10-010) (Commissioner Picker/ALJ Mason/ALJ Goldberg) (Advocacy):** As directed in D.16-01-046, SED filed Petition17-03-004 to adopt, amend, or repeal rules in GO 95. In response to SED's petition, the Commission opened R.17-10-010 in October 2017, to consider the amendments discussed in SED's petition. Pursuant to the ALJ ruling, on November 15, SED and all interested parties met and developed a proposed schedule for the proceeding. On November 29, SED submitted combined comments and prehearing conference statements. Pending.
- **Repealing/amendments to Rule 18 OF GO 95 (R.16-12-001) (President Picker/ALJ Kenney) (Advocacy):** In response to an SED petition for rulemaking, the Commission opened this proceeding to consider amendments to, and possible repeal of, Rule 18 of GO 95. On October 6, 2017, SED and a majority of parties filed a joint motion requesting that the Commission adopt the attached Settlement Agreement. Replies to the joint motion were filed on October 30, 2017.
- **Physical Security of the Electric System (R.15-06-009) (Commissioner Rechtschaffen/ALJ Kelly) (Advocacy):** Phase I will address physical security for electric supply systems, and additional phases will address disaster and emergency preparedness plans for electrical corporations and regulated water companies. On September 14, ESRB submitted comments on the joint utilities' straw proposal for physical security regulations. Parties continue to follow ALJ Kelly's proceeding schedule for the Physical Security OIR. A proposed decision is tentatively planned to be issued in early 2018.
- **Electric Storage Procurement (R.15-03-011) (Commissioner Peterman/ALJ Cooke) (Advisory):** ESRB continues to provide advisory support to help determine best practices related to energy storage, and the proper way to inspect such facilities. On November 3, 2017, a Proposed Decision was filed and could be heard, at earliest, at the Commission's December 14, 2017 Business Meeting. The decision provides direction to the utilities on how to promote the ability of storage resources to realize their full economic value when they are capable of providing multiple benefits and services to the electricity system. The Proposed Decision was held for voting until January 11, 2018 for further review.
- **Distributed Energy Resources (R.14-08-013) (President Picker/ALJ Mason/ALJ Allen) (Advisory):** On September 28, 2017, the Commission adopted a Decision that addressed Track 1 Demonstration Projects A (Integration Capacity Analysis) and B (Locational Net Benefits Analysis). ESRB will continue to review the issues and provide advisory support.

- **SB 1028 (Hill) “Electrical corporations: wildfire mitigation plans”:** In September 2016, the Governor signed SB 1028, which requires each electrical corporation and each publicly owned electrical utility or electrical cooperative to annually file a wildfire mitigation plan. Additionally, this bill requires the Commission (for electrical corporations) or the governing board (for publicly owned electrical utilities or electrical cooperatives) to review and to comment on the submitted plans. The Governor’s approved budget for FY 17-18 contains three positions in ESRB for this project; ESRB is in the process of initiating a new program dedicated to wildfire mitigation practices.

REPORTS AND OTHER ACTIVITIES

- **Transmission Maintenance Coordination Committee (TMCC):** TMCC is an advisory committee to help the CAISO develop, review and revise Transmission Maintenance Standards. ESRB is a member and attends quarterly meetings.

ELECTRIC GENERATION SAFETY AND RELIABILITY PROGRAM

ESRB performed the following generation-related activities in December 2017:

- Continued to work on both the facility audit and an investigation of a fatality incident that occurred on March 6, 2017 at Sentinel Energy Project in North Palm Springs.
- Continued to work on the investigation of an injury incident that occurred on April 8, 2017 at La Paloma Generating Station in McKittrick.
- Reviewed Calpine’s root cause analysis report and revised the investigation report of the fire incident that occurred on January 29, 2017 at Delta Energy Center in Pittsburg.
- Monitored four forced and 10 planned outages that were reported by natural gas and renewable power plants.
- Continued to verify the corrective actions that were taken by the Generating Asset Owners (GAOs) as a result of the Colusa, Redondo Beach, Mandalay, and High Winds power plant audits for compliance with GO 167 requirements.
- Continued to coordinate with Energy Division on reliability monitoring calls with the IOUs to monitor system reliability.
- Drafted a data request to Bear Valley Electric regarding its GO 166 filing.
- Staff attended the 2017 Power-Generation Conference in Nevada.
- Implemented a new web-based outage reporting database, Power Plant Outage Reporting (PPOR), which allows the GAOs to report the major outages by directly entering the information into a web portal. ESRB responded to GAOs’ questions regarding the new database and reviewed qualifying facility (QF) exemptions. The GAOs started reporting outages to the PPOR on December 1, 2017. Staff continued enhancement and testing of the PPOR database.

Metrics for Generation Incident Investigations as of December 31, 2017

Electric Generation Incidents	Level 1	Level 2	Level 3	Level 4	Total ³
Total open incidents	0	0	1	2	3
Total incidents reported in 2017	0	0	1	2	3
Total incidents closed in 2017	0	0	1	0	1
Total open 2017 incidents	0	0	1	2	3
Incidents reported in December 2017	0	0	0	0	0
Incidents closed in December 2017	0	0	0	0	0

UTILITY RISK ASSESSMENT AND SAFETY ADVISORY

Major accomplishments in 2017

The Risk Assessment & Safety Advisory section has earned a reputation for high quality, timely work products, participatory workshops and technical group facilitation that all contribute to Commission decision making for some of the CPUC’s highest profile, complex proceedings. During the past year, RASA was able to meet several critical milestones, including finalization of staff evaluation reports for Southern California Edison’s General Rate Case and the Sempra Utilities’ Risk Assessment Mitigation Phase (RAMP) proceeding, along with completion of a consultant’s report in the Pacific Gas & Electric Safety Culture investigation. In December, RASA finalized for public release staff reports on Physical Security of Electric Infrastructure and a Joint Report with CARB staff for the latest version of the annual Natural Gas Leak Survey.

During 2017 RASA staff created several opportunities to share its work and knowledge by making presentations for CPUC staff and, when the opportunities met Commission criteria, through presentations and participation in energy industry events, conferences and seminars. RASA staff promoted safety through Friday Forum presentations about current activities, and holding “bridging” meetings with government agency staff involved with physical and cyber security matters, among other issues.

RASA’s promotion of Energy Storage safety standards at a Department of Energy-sponsored forum in February 2017, and a presentation on California’s newly adopted Methane Leak Abatement program at a December Gas Technology Institute conference successfully demonstrate CPUC leadership on a national basis.

³ Level 1: A safety incident that doesn’t meet Level 2, 3, or 4 criteria. Level 2: Incident that occurred during an Electric Alert, Warning or Emergency (AWE). Level 3: Incident resulted in a significant outage that was due, at least in part, to plant equipment and/or operations. Level 4: Incident resulted in a fatality or injury requiring hospitalization and was caused, at least in part, by plant equipment and/or operations.

REVIEWING SAFETY & RISK IN GENERAL RATE CASES

PG&E RAMP

On November 30, 2018, Pacific Gas & Electric filed its first RAMP case, a year in advance of its 2020 GRC (I.17-11-003). In the filing PG&E identified 22 of its top risks for electric and natural gas operations, and several “cross-cutting” risks, including contractor safety, cyber security and workplace violence. Additionally, the utility at the Commission’s request provided some details for electric substation reliability, as well as executive compensation and corporate safety culture.

Six of the identified gas risks are also part of the PG&E 2019 Gas Transmission & Storage rate case (A.17-11-009), that was filed on November 17.

RASA staff will be conducting an evaluation of the RAMP, with a report expected in 1st Quarter 2018. The natural gas risks will also be evaluated for the GT&S case, so there is complementary analysis available to intervenors and the Commission.

Other issues in the GT&S case will include PG&E’s gas storage strategy, which involves selling or closing two facilities; the gas storage risk mitigation programs ordered in the previous GT&S case, and other compliance matters.

A PHC was held December 14 in the PG&E RAMP. The GT&S PHC will occur January 4, 2018.

PROCEEDINGS

- **Investigation into Safety Culture of Pacific Gas and Electric Company and PG&E Corp. (I.15-08-019) (President Picker/ALJ DeAngelis) (Advisory):** A Phase 2 PHC was held August 1, 2017, during which PG&E representatives indicated that that have reviewed the report from consultants NorthStar and concur “with the vast majority” of recommendations contained in the report. PG&E said it has created a “One PG&E Safety Action Plan” that will address the major recommendation for an “enterprise wide” plan, and that it intends to implement some 60 other recommendations as soon as possible. According to PG&E 10 percent are already being implemented, 30 percent will be underway by the end of the year and the remainder will be implemented during 2018. On September 12, 2017, the Commission hosted a workshop during which NorthStar principles were available to answer questions about the findings of the report. A November 17, 2017, Assigned Commissioner’s Ruling called for PG&E testimony to be filed January 8, 2018, with intervenor testimony to follow January 29. Depending upon responses, the Commission may set hearings thereafter.
- **Gas Leak Abatement OIR (R.15-01-008) (Commissioner Rechtschaffen/ALJ Kersten) (Advisory):** The Commission on June 15 issued the Phase 1 decision (D.17-06-015) adopting structures and policies for methane leak reporting and reduction activities, in particular formalizing the annual gas leak reporting mechanism, changes to leak reporting

templates, and instituting a list of 26 Best Practices for leak detection, quantification and repairs. Parties have submitted the consensus plan and template for Compliance Plans that will be due in March 2018. In November, the utilities filed advice letters establishing cost-recovery mechanisms and detailing potential R&D/pilots that will be proposed in the compliance plans; a workshop will be scheduled in early 2018 to review those filings. Additionally, RASA and staff of the Air Resources Board finalized their review of the 2016 gas leak survey reports, which were filed June 16, 2017, and drafted a joint report that will be publicly issued in early January.

SCE 2017 General Rate Case (A.16-09-001) (President Picker/ALJs Roscow & Wildgrube) (Advisory): Evidentiary hearings wrapped up during the first week of August. No additional issues related to risk or safety were raised during cross-examination of witnesses. Opening briefs were filed September 8, with replies filed September 29. The Proposed Decision is currently being drafted.

- **Sempra Utilities 2019 General Rate Case (A.17-10-007/008 consolidated) (President Picker/ALJ Lirag)** The test year 2019 GRC applications were filed October 6, 2017. SED will be reviewing the testimony to evaluate how the utilities have incorporated elements of the Risk Assessment Mitigation Phase (RAMP) evaluation, and provide ongoing support regarding safety issues. A pre-hearing conference is set for early January.
- **Physical Security of Electric Infrastructure (R.15-06-009) (Commissioner Rechtschaffen/ALJ Kelly) (Advisory)** On August 31, the utilities presented a revised Straw Proposal for Commission consideration. The proposal outlines a process for utilities to assess their distribution-level electrical assets, particularly substations, and to prepare a mitigation plan to reduce vulnerability to physical incursions and/or limit impacts. The process entails vetting by a qualified third-party and review by Commission staff to ensure compliance. A separate but similar review and approval process is contemplated for publicly-owned utilities, with approval of the compliance plans resting with the POU's governing bodies, not the CPUC. In December, RASA staff completed a whitepaper updating the status of physical security issues at the state and federal level, to be released in January. Also, staff has evaluated the Joint Utility Proposal and submitted recommendations for Commission consideration. This document will be circulated in the proceeding for comments.
- **Safety Model Assessment Proceeding (A.15-05-002, et al) (Commissioner Rechtschaffen/ALJ Kersten) (Advisory):** The Phase 1 Interim Decision to advance this proceeding (D. 16-08-018) determined that the risk scoring models initially proposed by utilities were not adequate and should be supplemented by use of a multi-attribute scoring model that was proposed by stakeholder groups TURN/Indicated Shippers/Electric Producers & Users Coalition. The Phase 2 Scoping Memo was issued on December 13, 2016, establishing a new schedule for the proceeding. Test Drive working groups commenced in mid-January. The two approaches were detailed in filings in mid-October, with workshops held on November 6-7 in San Francisco. Parties are engaged in settlement negotiations to reach potential agreement on the risk assessment models.

- **Fire Safety Rulemaking (R.15-05-006) (President Picker/ALJ Kenney/ALJ Kao) (Advisory):** D.16-05-036 adopted Fire Map 1, which depicts areas of California with an elevated hazard for the ignition and rapid spread of fires. D. 17-01-009 adopted a revised work plan and schedule on January 19, 2017. In June, the Commission adopted D. 17-06-024 deleting Shape C and setting a new due date for completing Fire Map. With D.17-12-024, the Commission approves a set of changes to General order 95 and other rules that should dictate enhanced fire prevention activities in the Fire-Threat areas described by the new Fire Map. In early January, the utilities and technical advisors will file an advice letter seeking approval for statewide adoption of the new Fire map.
- **Undergrounding Rule 20A (R.17-05-010) (Commissioner Picker/ALJ Hecht) (Advisory)** This rulemaking was launched May 11 to review policies and funding mechanisms for the overhead to underground conversion program administered by electric utilities for cities and other jurisdictions. A PHC was held September 11, 2017, and a scoping memo is pending. SED will monitor the proceeding with an interest in adding safety as one of the program eligibility criteria.
- **Utility Poles (I.17-06-027/R.17-06-028) (Commissioner Picker/ALJs Mason and Kenney) (Advisory)** The Investigation and Rulemaking into possible creation of a shared database or statewide census of utility poles and conduit was initiated on June 29, 2017. This proceeding is to consider strategies for increased and non-discriminatory access to poles and conduit by competitive communications providers, the impact of such increased access on safety, and how best to ensure the integrity of the affected communications and electric supply infrastructure going forward. On a parallel track, the Commission will consider rules that would allow broadband Internet access service (BIAS) providers to attach facilities to poles and to use conduit. This proceeding is consolidated with R.17-03-009 that considers whether and how our existing Rights-of-Way Rules should be applied to wireless support facilities (lines and antennas). A PHC was held December 5, 2017, and a scoping memo will follow.

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 - 1/01/17 – 12/31/2017

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

Confirmed or Possible Whistleblower Complaints					
CAB	Transportation	Electric Safety	Gas Safety	Telco Fraud	Rail

California Public Utilities Commission | Safety and Enforcement Division

January	0	0	1	0	0	0
February	0	0	0	0	0	0
March	0	1	0	0	0	0
April	0	1	0	1	2	0
May	0	1	0	1	1	1
June	0	1	0	1	0	0
July	0	0	0	0	0	0
August	0	0	1	0	0	0
September	0	1	0	1	0	0
October	0	0	1	0	0	1
November	0	0	0	1	1	0
December	0	2	0	0	0	0
Total 2017	0	7	3	5	4	2

Invalid Whistleblower Complaints Converted to Standard Complaints							
	CAB	Transportation	Electric Safety	Gas Safety	Telco/Utility Fraud	Rail	Referred to Outside Agency
January	0	1	0	0	1	1	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	0	1	1	0	0	0	0
October	0	0	0	0	1	0	0
November	0	0	0	0	0	0	0
December	1	0	0	0	0	0	0
YTD	1	2	1	0	2	1	0

Test, Incomplete or Duplicate Whistleblower Complaints	
January	1
February	3
March	0
April	1
May	1

June	4
July	0
August	3
September	0
October	1
November	0
December	2
YTD	16

OFFICE OF RAIL SAFETY

RAILROAD SAFETY – ROSB

In the month of December 2017, SED Staff’s Railroad Operations group completed the following:

New Incidents Investigated	11
Informal Complaints Investigated	3
Safety Assessments/Reviews	9
Compliance Actions	494
Major Inspections Completed - Such as Focused Inspections	1
Operation LifeSaver Presentations	22

ROSB MAJOR ACCOMPLISHMENTS 2017

In 2017, Railroad Operations and Safety Branch (ROSB) accomplished the following:

- CPUC Railroad Bridge Evaluation Program conducted 143 bridge observations and created 9 RMSR's (Risk Management Status Reports) to improve the overall safety of the state's railroad bridges.
- Railroad Tunnel Evaluation Project began in 2017 to locate, inspect and assess the condition of tunnels located throughout the state.
- An increase in hiring of inspectors has occurred in 2017 and currently participating in the Federal Railroad Administrations On the Job Train Program (OJT) are, 2 Motive Power and Equipment/ 2 Signal and Train Control/ 2 Track /2 Operating Practices inspectors. This was indeed a major accomplishment because it has been historically difficult to find qualified individuals to work for the PUC considering competitive salaries of other agencies.
- General Order Training Program (GOTP) ROSB has through hard work and effort developed a formal training program to train all staff on having a thorough understanding of GO's 118A, 26D, and PU Code 762. This formal training was developed to ensure staff has the ability to explain the GO's in order to ensure compliance from the railroads throughout the state.
- ROSB staff of all various disciplines (Track, Signal & Operating Practices Inspectors) participated with the FRA staff in audits of SMART prior to the start of Revenue service. SMART is the newest rail passenger service to be in operation in the state in over 50 years. As a result of ROSB participation and recommendations, SMART corrected all non-compliant conditions prior to its grand opening, and is currently in revenue service.
- Operation Lifesaver attended 33 community wide events and reached more than 13,000 people. By spreading the news of Railroad Safety to schools, businesses, drivers of all kinds of vehicles, trucks, buses heavy equipment operators.
- Hazardous Materials inspectors established a weekly program of working jointly with the US Coast Guard to conduct Port inspections.

ROSB INSPECTION, INVESTIGATION & FIELD ACTIVITIES

November 9, 2017: A CPUC railroad safety inspector and an FRA inspector performed a routine main-line inspection on the UPRR Valley subdivision in Roseville. Roseville Yard is UPRR's largest classification yard in Northern California and the Valley subdivision is a main artery feeding it.

The inspection team found 18 tie defects in a curve in the City of Roseville. 49CFR 213.109 (b) requires no fewer than 12 non-defective and effectively distributed ties in a 39-foot segment to support the entire segment. Crossties are used to hold and maintain gage, track surface, and alignment. Without the ability to provide structural support, these tie defects could cause a derailment which could have catastrophic consequences in the middle of such a large city with residential neighborhoods less than one hundred yards away.

The railroad safety inspectors notified the UPRR track inspector of the defective ties. Normal track speed was 65 MPH. UPRR placed a 25 MPH slow order to protect the track. UPRR's track manager has assured the state and federal inspectors they will be installing ties throughout the entire curve to make a permanent repair to the defective condition.

November 15, 2017: Two CPUC railroad safety inspectors performed a routine inspection of railroad operations at the UPRR Oroville Yard and adjoining industrial leads. The purpose of the inspection was to evaluate compliance with Federal and State Regulations in addition to railroad operating and safety rules.

The CPUC railroad safety inspectors observed railroad ties in the walkway on the north end of track 104, near a derail switch of the industrial lead named Adelaide. More railroad ties littered both sides of the lead track and both sides of three additional tracks (near the same location). The CPUC railroad safety inspectors noticed rocks, spilled and oversized ballast, mounds of sand and other debris in the walkways, creating tripping hazards for train crews that switch the Adelaide industrial lead three days a week. A slip, stumble or fall while walking next to moving equipment or getting on and off standing equipment could cause a railroad employee to be injured in a fall. A railroad employee could also be struck or run over by railroad equipment that may result in an injury or fatality. CPUC GO 118-A requires walkways adjacent to railroad tracks

to be safe, and clear of tripping hazards for train crews to work. "Walkways shall provide a reasonable regular surface with gradual slope not to exceed approximately 1" to 8"."

During their inspection, the two CPUC railroad safety inspectors also discovered two gates on track 527 (Amerigas spur) without any restraining apparatus' to hold the gates open. This creates a hazard to railroad employees who spot and pull cars. Employees could potentially be struck by the freely moving gates and be severely injured or fatally wounded. In addition, the highly flammable compressed gas cars being spotted at this industry could be damaged by an unrestrained gate possibly causing an uncontrolled release of the hazardous gas. State GO 26-D, requires gates to be restrained to provide clearance requirements.

The CPUC railroad safety inspectors immediately reported the defects to the UPRR track inspector working on the Adelaide industrial lead. The spilled ballast between two of the tracks presents an especially hazardous condition when there are cars on both rails. At night these piles of ballast are especially hard to see and even during the day, shadows cast by the cars on both rails make the piles difficult to see. Local and through freight crews switch these tracks daily. Railroad employees could be injured or fatally wounded by the tripping obstacles in the walkways.

The CPUC railroad safety inspectors also reported the safety defects were reported to a UPRR Senior Manager of Road Operations and the Assistant Manager of Track Maintenance. The Assistant Manager of Track Maintenance put out a track condition notice to employees which informed them of the hazardous footing conditions. He also agreed to remediate the defects within 30 days.

On December 14, 2017, the CPUC railroad safety inspectors performed a follow-up inspection, which revealed that all defective conditions which were identified during the inspection of November 15, 2017, had been remediated at the UPRR Oroville Yard and industrial leads.

November 16, 2017: Two CPUC railroad safety inspectors conducted a routine inspection of San Francisco Bay Railroad in San Francisco. The inspectors reviewed an inbound train that included empty hopper cars and was spotted for loading.

The CPUC railroad safety inspectors identified two defects. One of the defects was a broken sill step (stirrup) on the A end left side. 49 CFR Part 231.130 A2 requires the safety components of a railcar to be maintained and in safe working order. This step is what the crew uses to get on and off the car. A broken step could cause a railroad employee to slip, causing serious injury or fatality if the equipment was moving. The other defect was a brake rod that had worn into two pieces on the A end of the car. 49 CFR Part 232.103 F3 requires the mechanical brake components to be intact and operational. Without the complete integrity of the brake rods the car will be without brakes under air or the manual hand brake and will not be able to stop.

The CPUC railroad safety inspectors informed railroad management, who removed the railcar from service until repairs could be completed.

November 21, 2017: Two CPUC railroad safety inspectors performed a routine inspection at the Safety-Kleen facility in Newark in response to a request from the Safety Compliance Manager. Safety-Kleen is planning an expansion at that site and invited the inspectors to also attend a safety meeting where they met a new employee currently in training for their rail operations.

The CPUC railroad safety inspectors reviewed training records, loading and unloading procedures, and other items pertaining to the hazardous materials rail car (tank car) operation. During a review of the loading and unloading procedures, the inspectors suggested using specific terminology to ensure the procedures incorporated all the requirements of 49 CFR Part 173.31(d), which governs required examinations before shipping and appropriate tank car loading and unloading procedures.

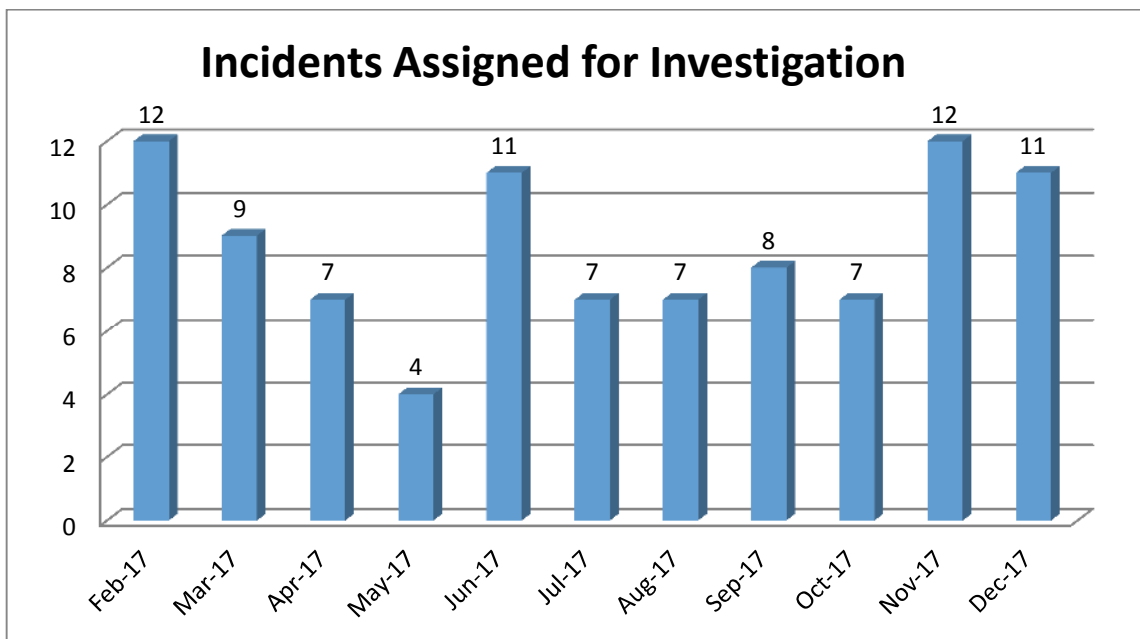
The inspectors also discussed with the new employee the importance of complying with the regulations by reviewing the applicable sections of 49 CFR Part 209, which provides railroad safety enforcement procedures. The specifically reviewed Appendix B, the civil penalty assessment guidelines. The CPUC railroad safety inspector informed Safety-Kleen management that they appreciated being called in ahead of time to ensure the expansion conforms to federal and state safety laws.

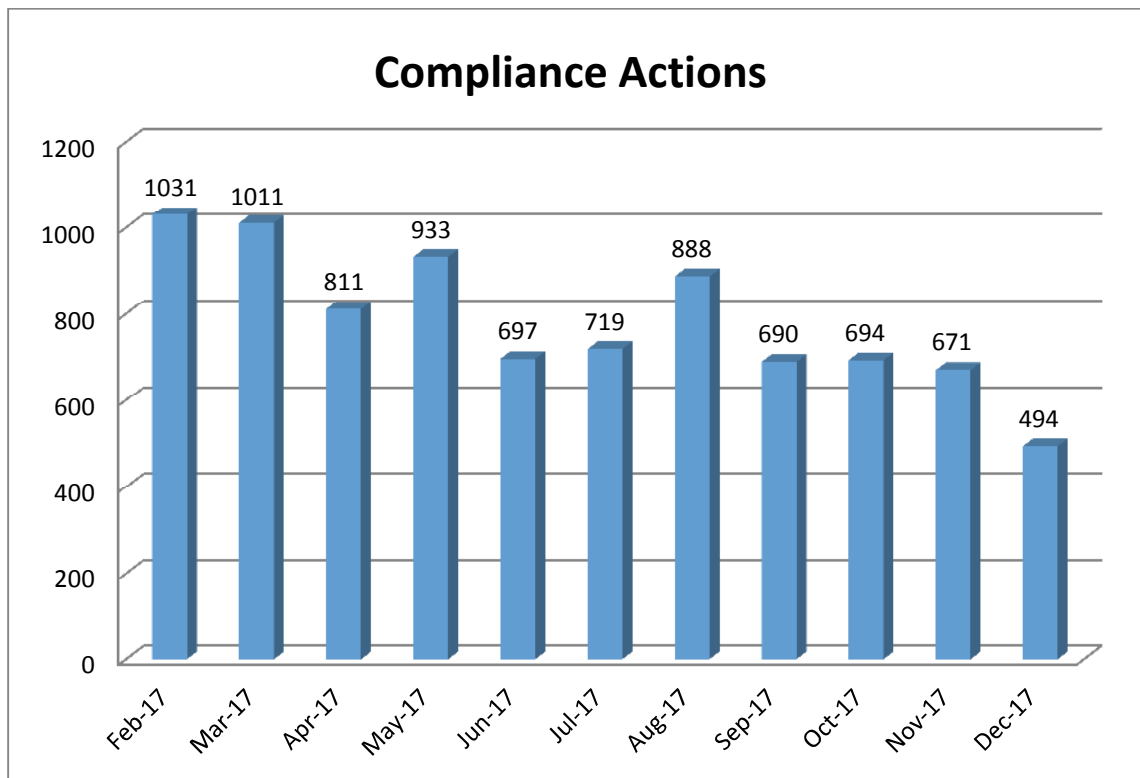
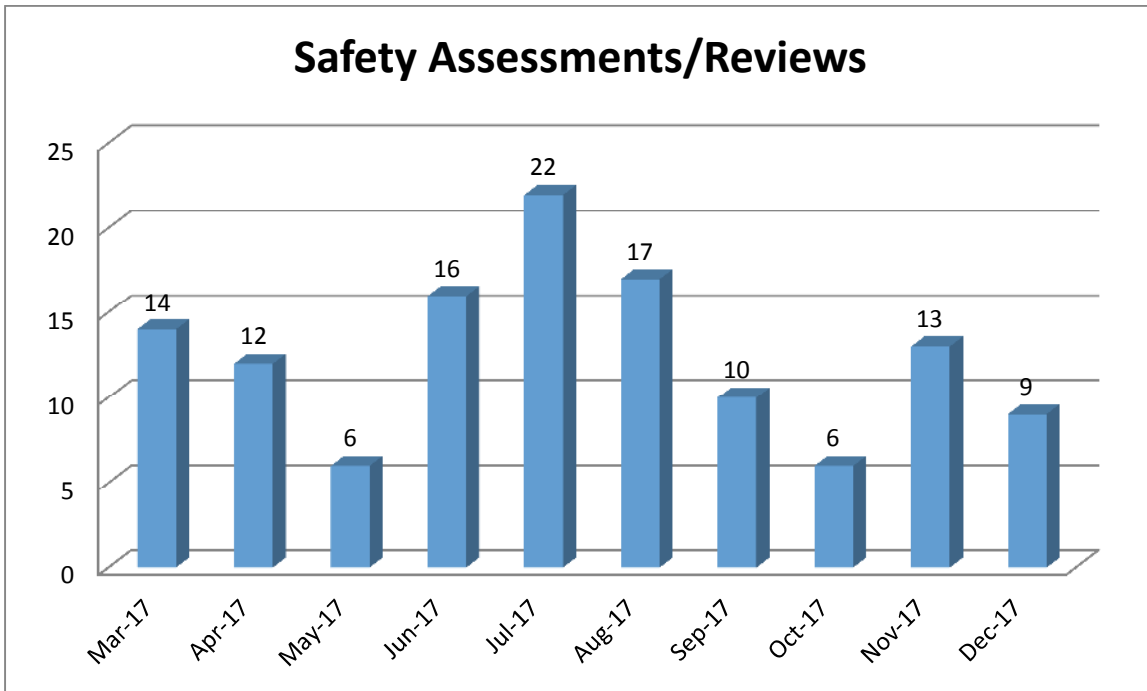
December 9, 2017: A CPUC railroad safety inspector performed an Operation Lifesaver (OL) presentation to multiple groups of families at the Red Cross Safety Festival in Riverside in the City of Riverside, Riverside County. An OL PowerPoint presentation with interactive question and answer games and distribution of OL safety handouts were part of the event. Over 200 people attended to the event.

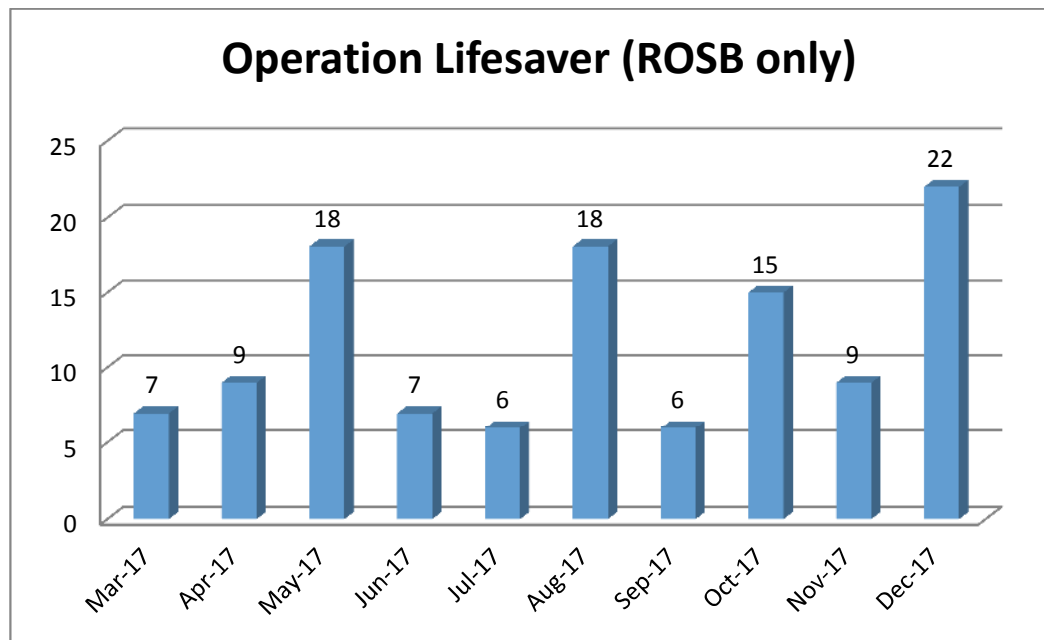
December 13, 2017: An ROSB Staff Member performed an OL presentation at the Brookside Center in the city of Pittsburg, Contra Costa County. The ROSB staff member distributed gloves and socks that were donated by the UP and the BNSF. Over 63 people took part in the presentation.

December 16, 2017: A CPUC railroad safety inspector presented the OL message to over 500 people at the LA Union Station Train Fest. The inspector also conducted nine separate presentations and educated the visitors with informative interactive games and visual charts.

December 20, 2017: A CPUC railroad safety inspector performed an OL driver awareness event (cop on a train) on the Union Pacific Railroad mile post 548.6 on the Yuma subdivision at Live oak and San Timoteo Canyon roads. Railroad Police issued warnings and citations to approximately 32 drivers that did not heed the warning devices or stopped on the tracks.







OFFICE OF RAIL SAFETY

RAIL CROSSINGS AND ENGINEERING BRANCH - RCEB

In December 2017, the Rail Crossings and Engineering Branch completed the following:

	New During Period	Closed During Period
Crossing Incident Reviews	13	39
Informal Complaints Investigations	1	7
Safety Assessments/Quiet Zones/Reviews	35	35
Proceedings, Resolutions and G.O. 88-B Reviews	5	2
Operation LifeSaver Presentations	0	0

RAIL CROSSING AND ENGINEERING BRANCH ACCOMPLISHMENTS 2017

In 2017, the Rail Crossings and Engineering Branch (RCEB) accomplished the following:

California Public Utilities Commission | Safety and Enforcement Division

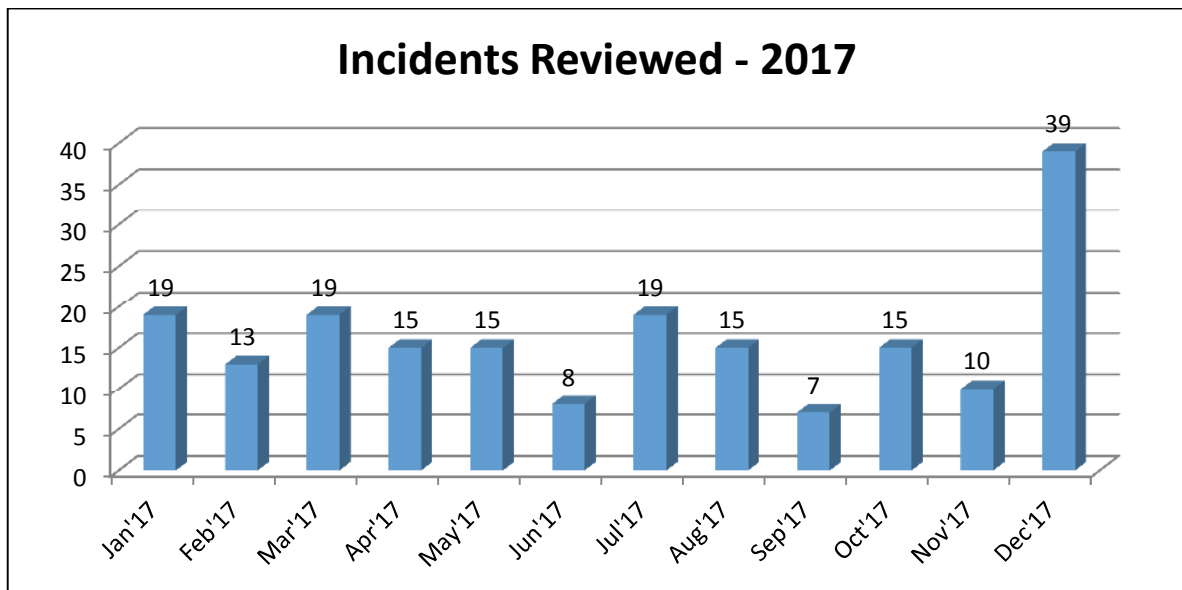
- RCEB reviewed 193 Incidents in 2017 up 6% from the 182 incidents reviewed in 2016 and up 17.7% from 164 incidents in 2015.
- RCEB completed the review of 15 informal complaints. The number of informal complaints filed declined by 52% from the 31 informal complaints in 2016, and 40% from the 25 informal complaints in 2015.
- RCEB completed 311 safety assessments in 2017, down 18% from the 380 in 2016, and down 29% from the 441 safety assessments in 2015.
- RCEB completed the review of 22 Quiet Zones in 2017, about three times as many from the seven Quiet Zones reviewed in 2016, and about six times more than the four Quiet Zones reviewed in 2015.
- RCEB completed 112 major proceeding assignments including formal applications, proceedings, resolutions, and General Order 88-B applications. In 2015 and 2016, RCEB completed 107 and 149 major proceeding assignments, respectively.
- RCEB volunteers completed 43 California Operation Lifesaver Inc. events including presentations, staffing booths, or helping at community events. The “Look, Listen and Live” rail safety message is shared with the public as part of the “See Tracks Think Train” campaign. RCEB volunteers completed 34 and 37 events in 2015 and 2016 respectively.
- RCEB participated with Caltrans in the review of the State Rail Plan of 2018. The Rail Plan is a strategic plan with operating and capital investment strategies that will lead to a coordinated, statewide travel system for the next 20 years and beyond.
- RCEB and Caltrans continue to work together in establishing preemption guidelines for all Caltrans Districts to follow. UPRR and BNSF are now involved in the cooperation effort to help Caltrans implement the RCEB directive from July 2016. Meetings continue into 2018.
- RCEB established and has oversight over the active inventory phase one contract. The contractor successfully completed active inventory review and entered the updated data in Rail Safety and Security Information Management System (RSSIMS) database.

California Public Utilities Commission | Safety and Enforcement Division

- RCEB established and has oversight over the Stop-Yield contract where the contractor identifies passive crossings in California and updates the RSSIMS database. RCEB extended the contract by six months for data cleanup and entry into RSSIMS.
- RCEB issued an RSSIMS Bulk Update Assessment contract to review the existing RSSIMS capabilities for updating data in bulk. RCEB will need to rebuild or replace the RSSIMS database to support the bulk features.

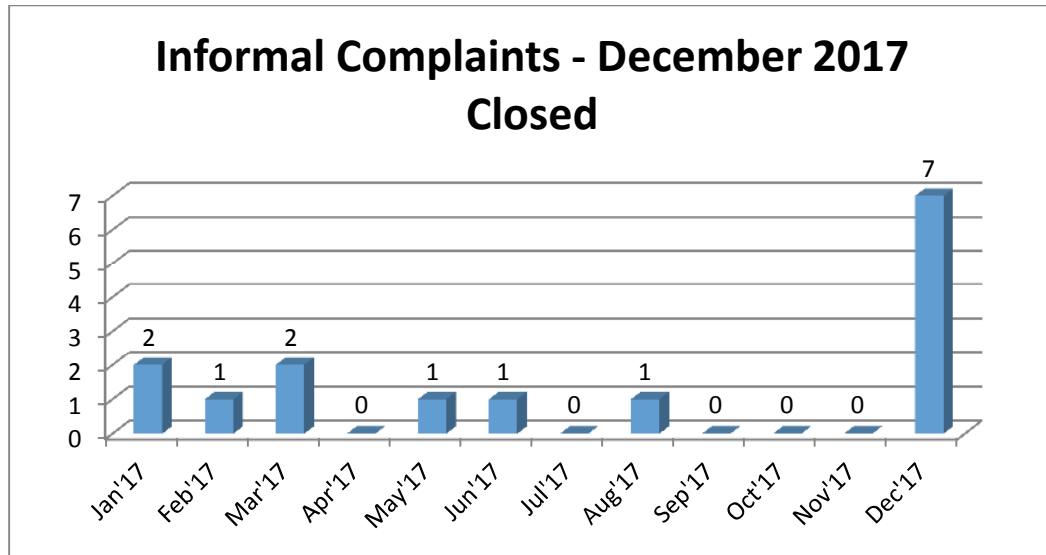
RAIL CROSSING INCIDENT INVESTIGATIONS

In December 2017, the Rail Crossings and Engineering Branch (RCEB) assigned 13 new incidents at highway-rail crossings. RCEB completed 39 crossing incident reviews and evaluations.



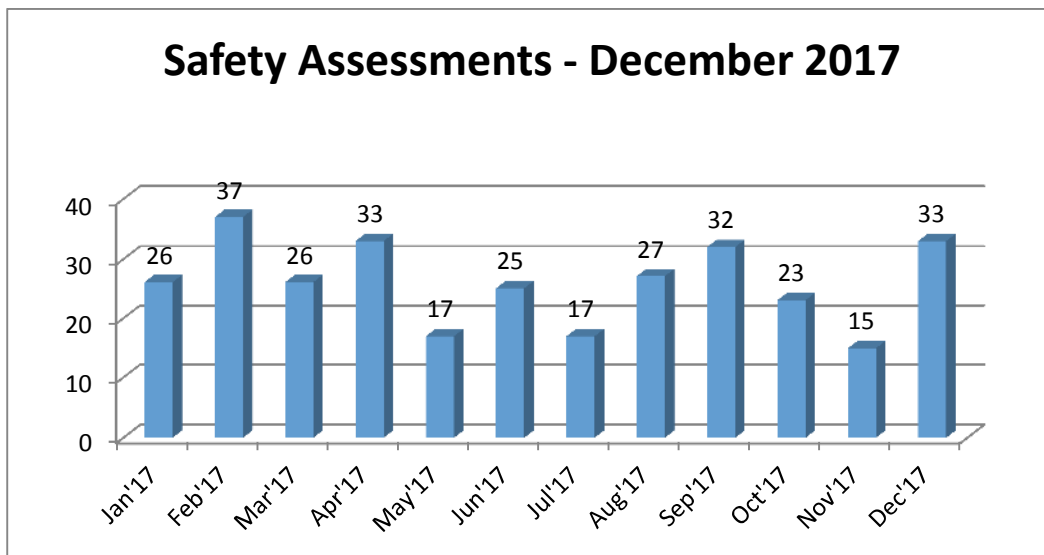
INFORMAL COMPLAINTS

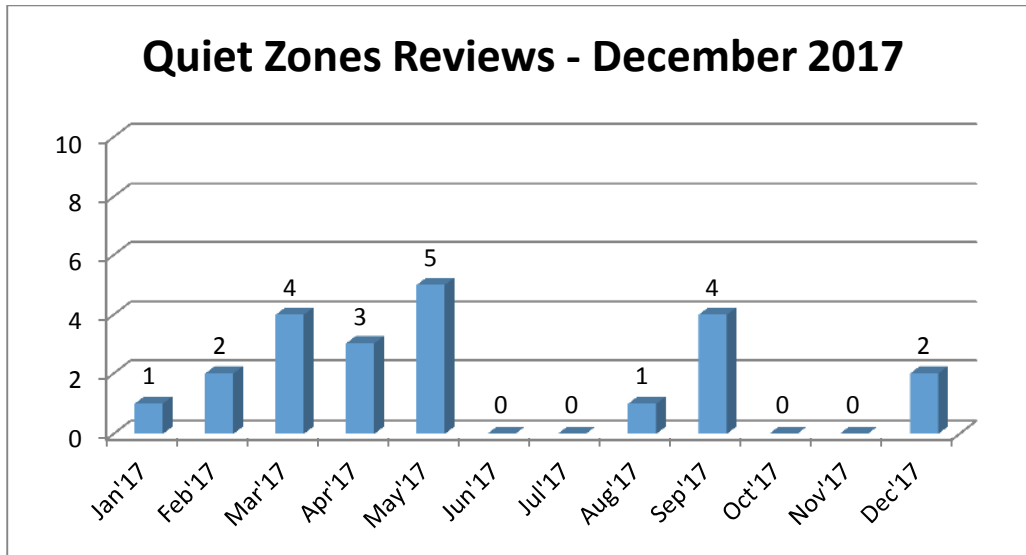
In December 2017, RCEB closed seven informal highway-rail crossing complaints and received one new complaint. The new complaint is regarding a rough crossing surface at the Hawthorne Road crossing in San Diego. The railroads maintenance contractor scheduled repairs in January 2018.



SAFETY ASSESSMENTS, QUIET ZONES AND REVIEWS

In December 2017, RCEB completed 33 rail-crossing safety assessments involving: communications, field inspections, and diagnostic reviews with railroads and local agencies. RCEB also reviewed two Quiet Zones (QTZN) during this period. The Vasona QTZN has 15 crossings in San Jose, CA; and, the Atherton Fair Oaks 24-hour QTZN has one crossing at Fair Oaks Lane in Atherton. RCEB staff QTZN reviews include periodic checks to ensure compliance with the QTZN requirements.





PROCEEDINGS, RESOLUTIONS AND G.O. 88B REVIEWS

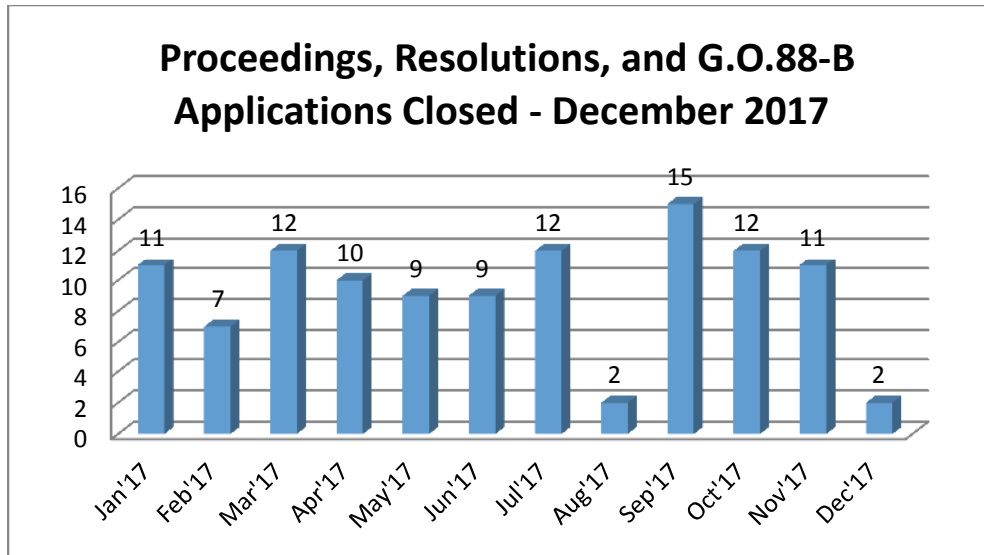
In December 2017, RCEB staff did not receive any new major proceedings requiring Administrative Law Judge (ALJ) review; received one new Resolution request; and, four new General Order 88-B applications for changes to existing crossings. This month, RCEB closed two General Order 88-B applications.

RESL SX-127 – Resolution SC-127 establishes maintenance costs for the Automatic Grade Crossing Warning Device Maintenance Fund program for calendar year 2017. The resolution concludes an annual review of the cost of maintaining the various automatic warning devices and approves those costs for the claims by cities and counties for 2017.

G.O. 88-B Applications- RCEB staff’s review in December 2017 of the G.O. 88-B applications resulted in granting the modifications to the following crossing projects:

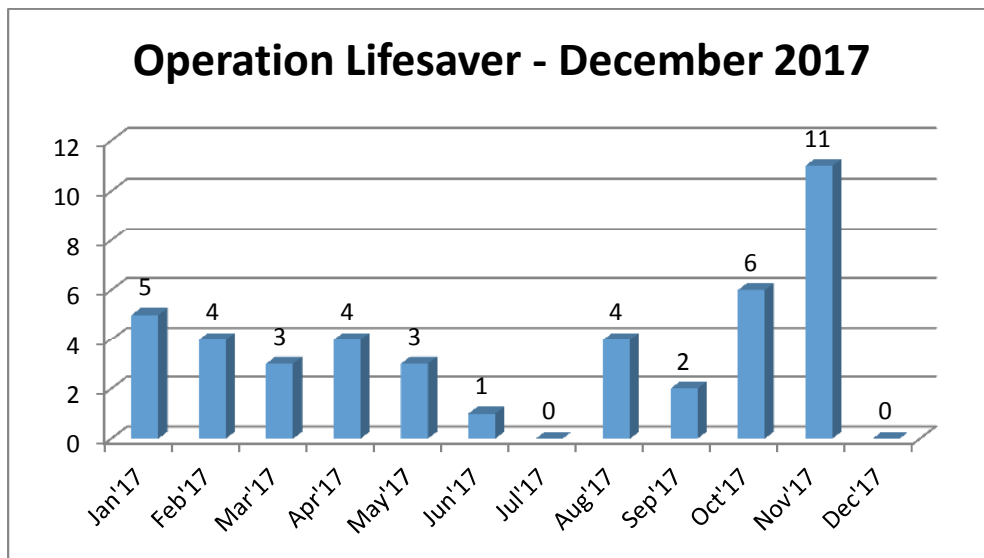
File	Record Id	Project	County	Date Closed
XREQ	2017110002	8 th Street East Widening, Sonoma County	Sonoma	12/06/2017
XREQ	2017110003	NCTS - Mar Vista alterations, Vista, San Diego County	San Diego	12/22/2017

The authorizations for the projects expire in December 2020.



OPERATION LIFESAVER INC.

In December 2017, RCEB volunteers did not participate in any Operation LifeSaver Inc. (OLI) activities. As time permits, staff participates in presentations, fairs, and community events to share the OLI rail safety message to the general public and professional drivers.



RAIL TRANSIT - RTSB

In December 2017, the Rail Transit Safety Branch (RTSB) completed the following activities:

CORRECTIVE ACTIONS PLANS

- Twenty-eight (28) CAP's were opened in December 2017.
- Fifteen (15) CAP's were closed.

INCIDENT INVESTIGATIONS

- In December 2017, twenty-nine (29) incidents were reported by Rail Transit Agencies (RTA).⁴
- Two (2) incident investigations were closed.

MAJOR AUDITS

- The BART Triennial Safety Review (conducted September 11 – 22, 2017) report is currently under management review and upon completion will be placed, via Resolution, before the Commission for final approval.
- Staff and the lead auditor continue to write up the checklist and report for the SRTD Triennial Safety and Security Review conducted October 9 – 20, 2017.
- RTSB Staff continue to write up checklists for the triennial on-site safety and security review of the Santa Clara Valley Transportation Authority (VTA) light rail system conducted November 6-17, 2017.

ADMINISTRATIVE ACCOMPLISHMENTS

- **Federal Certification of SSOA Programs:** State Safety Oversight Agencies (SSOAs) have until April 15, 2019 to have their program certified by the FTA. In order for the CPUC to receive FTA certification, the Commission needs to revise GO 164-D (Rules and Regulations

⁴ Per General Order 164-D, the Commission must be notified within 2 hours by rail transit agencies of incidents if they include one of the following: a fatality at the scene, or where an individual is confirmed dead within 30 calendar days of a rail transit-related incident; an injury to two or more individuals requiring immediate medical attention away from the scene; property damage to rail transit vehicles, non-rail transit vehicles, other rail transit property or facilities, and non-transit property that equals or exceeds \$25,000; a collision at an at-grade crossing; a mainline derailment; a collision with an individual on a rail right-of-way; a collision between a rail transit vehicle and a second rail transit vehicle, or a rail transit non-revenue vehicle; an evacuation due to life safety reasons.

Governing State Safety Oversight of Rail Fixed Guideway Systems) and RTSB's Program Management Standard (Procedures Manual) to bring them in compliance with the new 49 CFR Part 674 issued last year; and RTSB needs to provide the FTA a list of other required documents. RTSB is working on drafting proposed revisions to GO 164-D and its Program Standards. On August 18, RTSB electronically transmitted the required documents to the FTA. On October 17, RTSB transmitted additional required documents to FTA staff for their informal review. Currently, RTSB is in Stage 2 of the Certification process, which has the following 4 stages:

- Stage 1 – State (Commission is the designated SSOA for the state) is working on its submissions to the FTA. Where applicable, legislation has not yet been enacted or executive action taken.
 - Stage 2 – State has submitted some requirements to the FTA.
 - Stage 3 – State has submitted all required documents to the FTA and is engaged in a dialogue with the FTA to address comments and questions. Where applicable, all required legislation has been enacted.
 - Stage 4 (Certified) – State has successfully met all SSOA Program requirements, including the resources to carry out the requirements, and has received FTA certification.
- **Web Form for the RTAs to Report Incidents to RTSB:** Under GO 164-D, RTAs are required to report incidents to RTSB staff within specified time frames and when they meet certain thresholds. Currently, those notifications are being made through telephone calls and/or emails to designated RTSB staff. However, if the incident occurs outside of business hours or when the designated staff person is on leave (vacation, sick leave, etc.), RTSB staff may not receive the notification in a timely manner and forward the incident information to their management. RTSB worked with CPUC's Webmaster to develop a web form the RTAs can use to submit incident reports, which will automatically get emailed to a list of Commission staff, eliminating the need to rely on one RTSB staff person to receive the notification and forward it to others that are in need to know. On June 23rd, the Webmaster created the first version of the web form, and RTSB staff has been testing it to

identify bugs and has been submitting requests to the Webmaster to address them. The San Francisco Municipal Transportation Agency and Sacramento Regional Transit District are helping RTSB test the new system.

Based on initial feedback from RTAs and perception by Staff that the web form is an improvement to the notification process, Staff is continuing to test the web form with several RTA's and will request the Commission remove the language in General Order 164-D to allow reporting by means other than a telephone.

- **Training:** November 27 through December 1, 2017, four staff members attended the Transit Rail System Safety class in Seattle, WA. The class is one of 4 classes needed for the Transit Safety and Security Professional (TSSP) Certification required by the Federal Transit Administration for staff involved in the rail transit State Safety Oversight Program. December 13-15, 2017, six staff members attended the Safety Management System (SMS) Principles for Transit class in Orange, California. The Federal Transit Administration requires the SMS class, for employees in the rail transit State Safety Oversight program.

PROCEEDINGS / RESOLUTIONS

- **I.16-06-010 Investigation into Fatal Accident on BART Tracks (Commissioner Randolph/ALJ Kim)** - On June 28, 2016, the Commission instituted a Formal Investigation in response to a two fatality Bay Area Rapid Transit (BART) accident on October 19, 2013. The purpose of this investigation is to a) examine the accident, b) determine whether BART repeatedly violated state codes and regulations by failing to provide adequate protection for BART's wayside workers, c) whether BART's train-operating personnel's lack of training and certification contributed to the accident, d) whether BART violated Rule 1.1 of the Commission's Rules of Practice and Procedure by failing to provide the Commission with an accurate list of who would be operating its trains during a strike occurring at the time of this accident, and e) whether Rule 1.1 was violated by BART's failure to obtain prior approval of the use of uncertified, untrained, and unapproved personnel to operate trains during the strike. Additionally, the investigation will determine whether BART should be fined or otherwise penalized for these violations.

A prehearing conference was held on October 11, 2016. On October 18, 2016, both parties filed a Joint Case Management Statement. On December 28, 2016, the Commission issued a scoping memo for the case, identifying the topics to be investigated and affirming the need for a hearing. On January 23, 2017, ALJ Kim issued a ruling setting the dates of evidentiary hearing to February 13-16, 2017.

Hearings were held and both SED and BART filed closing briefs on March 28, 2017. On June 20, 2017, the Commission issued D.17-06-018 extending the statutory deadline for the proceeding to December 23, 2017.

The ALJ's September 5 Ruling directed Staff to resubmit three (3) new Exhibit SED-50's by September 18, 2017 because the video with the original submission was defective... A September 7th Ruling relieved staff of the resubmittal obligation as the Commission's IT staff was able to resolve the problem.

On October 6, 2017, ALJ Kim issued "*Presiding Officer's Decision Regarding Alleged Violations by San Francisco Bay Area Rapid Transit District Relating to the October 19, 2013 Fatal Accident*" (POD). It includes the following orders:

- Assesses a fine of \$659,000.00, and immediately stays two thirds of the total assessed fine;
- In lieu of the stayed fine places BART on probation for 3 years, during which BART must comply with certain requirements; and
- Requires SED to monitor BART's compliance with this decision; and to no later than 9 months prior to the expiration of BART's probation, prepare and submit SED's recommendation on whether BART's probation should be extended beyond three years.

In November 2017, the assigned ALJ issued a Proposed Decision (PD) that would extend the statutory deadline for resolution of the proceeding to June 23, 2018. The PD asserts that the extension is necessary in order to consider pending appeals and the record. On November 6th, the CPUC's Safety Enforcement Division and BART each filed separate appeals to the Presiding Officers Decision that was issued on October 6, 2017.

On December 18, 2017, the Commission issued a ruling extending the statutory deadline for this proceeding until June 23, 2018, to consider pending appeals filed by both BART and the Safety and Enforcement Division.

- **R.09-01-020 Rulemaking into Railroad Worker Protections (Commissioner**

Rechtschaffen/ALJ Kim): On January 29, 2009, the Commission issued an Order Instituting Rulemaking “OIR” or “rulemaking” in response to a fatal Bay Area Rapid Transit (BART) employee accident on January 12, 2001, a fatal July 24, 2008 Sacramento Regional Transit District (SRTD) maintenance employee accident, and an October 14, 2008, BART employee fatal accident. The purpose of this investigation is to determine (1) whether current protections for rail transit agency roadway workers are adequate, (2) whether the State of California should implement a Commission General Order (GO) implementing new rules for rail transit agency protection of maintenance-of-way, track, signal, operating employees, and others engaged in roadway work, and (3) if new protections are needed, a description of the protections to be required by rail transit agencies and included in the Commission General Order.

On March 17, 2017, as requested by the ALJ, staff filed a report that contained staff’s recommendations for reconciling Commission GO 172: Rules and Regulations Governing the Use of Personal Electronic Devices by Employees of Rail Transit Agencies and Rail Fixed Guideway Systems and Commission GO 175-A: Rules and Regulations Governing Roadway Worker Protection Provided by Rail Transit Agencies and Rail Fixed Guideway Systems language and the proposed Commission GO language. Staff proposed changes to Commission GO 172 only. On September 27, 2017 Commissioner Rechtschaffen and ALJ Kim issued “Assigned Commissioner’s and Administrative Law Judge’s Joint Ruling and Eighth Amendment to Scoping Memo and Ruling”, which adopted the limited proceeding scope and schedule for the remainder of the proceeding. The Ruling found the only issues left for the Commission’s consideration are the pending recommendations by SED and determination of the most prudent procedures to consider any amendments needed to GO 172 and/or GO 175-A. It also sets a projected release of the Proposed Final Decision in October 2017.

On October 30, Commissioner Rechtschaffen issued a proposed decision, finding that all issues relating to GO 175-A had been resolved and closing the rulemaking. It also stated an intention to open a new rulemaking to consider SED's proposed amendments to GO 172. On November 30th, the CPUC approved Decision D.17-11-017 that closed the rulemaking and deferred the consideration of Staff's recommended changes to GO 172 to a new prospective proceeding.

SAFETY CERTIFICATION AND OVERSIGHT OF RAIL TRANSIT AGENCY PROJECTS

- **AirTrain Extension Project:** On August 10, 2017, the AirTrain Extension Safety Certification Plan (SCP) was approved via Resolution ST-205. The project expands the existing AirTrain System to include a new Long Term Parking (LTP) Garage Station and add an additional in-line Hotel Station serving a future hotel. Additional planned changes include an upgrade to line-of-sight (LOS) train to wayside signaling and communications, field retrofits of 39 vehicles to LOS technology, an upgrade to the Central Control, a 2000 ft. guideway extension, four additional guideway crossover switches, additional traction power system, and three new Innovia APM 100 vehicles. The project will have three Safety Certification Verification Reports, as it has three phases and will start revenue services accordingly, from October 2018 to June 2019. AirTrain recently submitted draft design conformance checklists to which Staff returned comments.
- **BART New Vehicle Procurement:** BART is in the process of procuring 775 new rail vehicles. BART has already received ten of these vehicles (five D cars and five E cars) for testing, and is storing them at its Hayward Yard facility. RTSB staff has been witnessing testing and participating in Safety and Security Certification meetings to oversee the procurement process. BART I submitted its interim Safety Certification Verification Report (SCVR) for these first 10 vehicles on October 30, 2017.

On Friday, November 3, 2017, Staff participated in a test run for the new vehicles to demonstrate that the cars respond properly and vehicle systems are integrated and fully functional. During the test run, the control systems did not recognize the correct train length and instead identified the 10-car train as a three-car train. For that reason, the

train did not achieve the proper berthing location and doors would not open on the trailing 7 cars.

On November 6, 2017, Director Malashenko's denial letter was sent to BART, requiring them to provide a written explanation and make corrections so the train and cars perform as intended. In late December, BART provided the written response, answered further staff questions, and requested another test run. CPUC staff will be going on a test ride with BART staff the week of January 8, 2018.

- **East Contra Costa BART Extension:** This project, also known as eBART, will add 10 miles of track extending rail service eastward from the Pittsburg Bay Point station utilizing eight Diesel Multiple Unit (DMU) vehicles. This project is currently in the construction phase, and is being safety certified by RTSB, whose staff regularly attends safety certification meetings. Signal testing is ongoing. Trains are currently undergoing testing during the non-revenue hours. Station and Maintenance Facility construction is currently on going. Remaining construction activities are going through punch lists. The main construction activity is the escalator installation. Track work is completed. Pre-revenue period will begin after turnover of facilities to the Operations group. eBART has recently hired 30 new staff for operations. In addition, BART has hired a Safety and Training Manager for the eBART and Oakland Airport Connector (OAC) systems. The new manager, Tony Onisko will report directly to BART's Chief Safety Officer. In addition, the new eBART and OAC manager is required to notify RTSB's Designated Engineer for BART of any reportable incidents on the eBART or OAC systems. This project expects to be in revenue service by approximately May 2018. The System Safety Program Plan and draft Emergency Response Plan were submitted officially to RTSB staff. The SSPP has been approved.

On November 30, 2017, the e-BART crossing Application 17-06-003 was approved by the Commission. CPUC attended and participated in an EBART Safety and Security Certification Review Committee meeting on December 19, 2017.

- **Silicon Valley Berryessa Extension (SBVX):** Bay Area Rapid Transit (BART) and Santa Clara Valley Transportation Authority (SCVTA) are currently in the process of jointly

constructing a 10-mile BART system track extension and two new stations – the Milpitas and Berryessa stations. The project is expected to be completed toward the end of 2017 (December), and is currently in the construction and testing phase for Traction Power Substation (TPSS), Train Control, Communication, etc., and in the pre-testing phase for other elements of the system. RTSB Staff regularly attends and participates in the Safety and Security Review Committee (SSRC) and Fire Life Safety and Security Committee (FLSSC) meetings and monitors the project progress. Additionally, RTSB Staff receives weekly or monthly schedule updates via email on the testing progress. On May 1, 2017, Staff observed the Railroad Intrusion Detection System (RIDS) testing at S24 location in Milpitas and on May 12, 2017, Staff observed the Powell Phase 3 pre-testing related to SME TPSS. Staff attended and participated in the SSRC and FLSSC meetings related to the SVBX project on May 18, 2017. On May 22 and 23, 2017, RTSB Staff observed SHO TPSS functional testing from field. There were some discrepancies noted and BART engineers will have it on the punch list items. On May 24, 2017, RTSB Staff attended and participated in the FTA Quarterly meeting at the SVBX Office in Milpitas. On June 8, 2017, RTSB Staff participated and observed the Traction Power Substation Testing from the Project Test Center. On June 21-22, 2017, RTSB Staff participated in the SVBX track inspection walkthrough with BART engineers and inspectors along with the SVBX contractors. The 10 miles of tracks was inspected.

On July 13, 2017, Staff attended and participated in the SSRC and FLSSC meetings related to the SVBX project at the SVBX office in Milpitas. On July 27, 2017, Staff attended, observed and participated in the Traction Power Substation (TPSS) integration regression testing related to TPSS SWA (Warren Avenue). July 29, 2017, Staff attended and observed the TPSS integration regression testing related to TPSS from Hostetter to Maybury. On the night of Friday, September 8, 2017, Staff attended and participated in the BART Power Train Run testing. On October 26, 2017, Staff attended and participated in the SSRC meeting #46. During the November FTA quarterly meeting FTA discussed concerns regarding the agreements necessary between BART and SCVTA regarding the

- **Downtown Sacramento Streetcar Project:** On July 12, RTSB staff participated in an FTA quarterly meeting with SRTD regarding the Downtown Sacramento Streetcar project. Although a Joint Powers Authority is being established as the system owner/operator involving the City of Sacramento and City of West Sacramento, SRTD, as the only local entity with expertise on rail transit construction and operations has been requested to provide design and construction oversight of the project. Additionally, the Streetcar will operate over a portion of the existing SRTD tracks. The project is still in preliminary design. Crossing diagnostics were held in July. They have requested an interpretation on GO 143-B and FRA rules as it pertains to interlockings at rail-rail crossings. A diagnostic meeting was scheduled for January 3, 2018, for the grade-separated crossing in West Sacramento.

On November 15, 2017, the Program Manager sent an e-mail to Sacramento Streetcar reminding them that no Safety Certification Plan had been submitted yet for Commission approval for the project SCP.

- **Central Subway Project:** 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, and Chinatown. This project, due to be completed in December 2019 per the latest update, is in the construction phase and is being monitored by both Central Subway Project (CSP) and RTSB staff through regular meetings, review of documentation related to safety certifiable elements to ensure conformance with specified safety requirements and design criteria, and site visits.

On August 31, 2017, between 11 AM and 1 PM, RTSB Staff and Inspectors, and ROSB Staff participated in the construction site tour of CSP's Yerba Buena/Moscone Center (YBM) station, along with SFMTA's Chief Safety Officer. The tour was provided and facilitated by the SFMTA CSP Deputy Director. YBM is currently the most developed station of the CSP's three underground stations with the station platform and tracks nearing completion. CSP periodically provides verification documentation for any construction certification items that are completed to members of the CSP Safety and Security Certification Review Committee (SSCRC), which includes RTSB and SFMTA system safety staff. Whenever RTSB

or SFMTA Safety staff has any questions with such document submittals, they will communicate them to CSP team. CSP will continue to track the items in question by RTSB or SFMTA Safety staff in its monthly SSCRC meeting minutes until they are satisfactorily resolved. This process will continue throughout the construction phase of the project. On December 15, 2017, CSP provided verification documentation for 27 additional construction certification items to the SSCRC for review and approval. Other than these items currently undergoing review by staff, CSP has yet to address RTSB staff's inquiries sent to CSP on a number of documentation submittals sent to the SSCRC within the past year, which is being tracked on the monthly SSCRC meeting minutes through resolution. The completion of the project has been forecasted to be delayed by almost a year, mostly caused by the production rate at the Chinatown station being behind schedule. A project contractor was limited in terms of equipment, tight spaces, environmental issues, etc. CSP is trying to accelerate the construction of the project to close that gap by increasing and paying for more construction hours.

- **LA Metro (LACMTA) P3010 New Vehicle Procurement Project:** Los Angeles County Metropolitan Transportation Authority (LACMTA or LA Metro) is in the process of procuring up to 235 new rail vehicles to provide the needed capacity expansion for the recently completed projects (Expo Phase 2 and Foothill Extension Phase 2), and for the future LAX/Crenshaw line which is currently in construction. On March 4, 2016, RTSB staff approved the LACMTA request to introduce the first batch of P3010 cars into revenue service after review of the Safety Certification Verification Report; various test records, and the individual vehicle history books. As of December 31, 2017, one hundred and two (102) P3010 vehicles have been approved for revenue service by RTSB staff.
- **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 existing aging HRV fleet operating on the Red Line subway. The Safety Certification Plan was approved under Resolution ST-185; however, no vehicles have yet been delivered.

- **LACMTA Regional Connector Project:** Currently in tunnel boring and utility relocation phase. RTSB staff regularly attends LACMTA’s monthly Fire Life Safety and Security Meetings, as well as Safety and Security Certification Review Meetings, and has approved a temporary shoofly track to allow tunnel boring to commence. The tunnel boring machine has completed boring the second parallel tunnel.
- **LACMTA Purple Line (Westside) Extension Project:** LACMTA is currently expanding rail network and services, including extending the Purple Line. The Westside Purple 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, consisting of nearly nine miles of heavy rail subway and seven stations, is planned to be constructed in three sections, and is currently in the utility relocation phase.

On June 16, 2017, LACMTA has submitted an update to the original Safety and Security Certification Plan, dated November 30, 2011. Staff has reviewed and approved the revision. RTSB staff regularly attends Westside PLE’s monthly Fire Life Safety and Security Meetings, as well as Safety and Security Certification Review meetings.

On November 22, 2017, FTA and LA Metro completed a supplemental EIR to provide additional detail for section 2 of the project, particularly as it relates to seismic issues.

- **LACMTA/MGLFECA Foothill Extension Phase 2B:** LACMTA and Metro Gold Line Foothill Extension Construction Authority have submitted the project’s Safety Certification Plan (SCP), which was approved by Resolution ST-194, “Granting Approval of the Los Angeles County Metropolitan Transportation Authority and Metro Gold Line Foothill Extension Construction Authority Foothill Extension Phase 2B Safety Certification Plan”, on January 19, 2017. Phase 2B alignment is from the current terminus of LACMTA Gold Line, Azusa Station, to the City of Montclair. It will traverse through six cities with six new stations on 12.3 miles of light rail transit (LRT) at-grade track.

Foothill Authority held a kick-off meeting on June 29, 2017, for public agencies and key officials, presenting the project’s current funding status and timeline. Discussions and

crossing diagnostics review meetings have taken place, however no alignment construction has begun. Groundbreaking is scheduled for December 2, 2017. The first two years will be to relocate and protect utilities, conduct pre-construction activities and begin qualification process for the alignment project design-build team. The project funding is short an estimated amount of \$279 million.

A recent request was made by State Senators Anthony Portantino and Connie Leyva and Assemblyman Freddie Rodriguez in support of the Foothill Gold Line Extension. The three legislators requested that the state fill the estimated \$280 million funding gap for the project using revenues from the Cap-and-Trade program; a request supported by LACMTA, as a follow-up to the project Funding Agreement. If approved as requested, the Cap-and-Trade dollars will be an important part of the overall funding for the project in both Los Angeles and San Bernardino Counties.

Foothill Authority held the project's Groundbreaking Ceremony on December 2, 2017 at 9:30am at Citrus College in Glendora. The Groundbreaking Ceremony was open to the public.

- **LACMTA Crenshaw/LAX Corridor Project:** LACMTA is constructing a new light rail transit 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 LACMTA Green Line and will serve the cities of Los Angeles, Inglewood and El Segundo; and portions of unincorporated Los Angeles County. The project is currently in construction and is being monitored by RTSB through regular meetings. The project is due to be completed in 2019. On November 8, 2017, staff met with LA Metro and its contractors to discuss the green line tie in for Crenshaw. LA Metro will take the green line out of service for about 6 weeks to do the tie-in work, and wants to coordinate with CPUC Staff to assure inspections that we want to make are closely coordinated, to prevent delay in completing the work and inspection, so the line is not shut down longer than necessary. Crenshaw/LAX and Green Line Tie-in construction activities will start January 26, 2018 and continue until April 6, 2018. During

this time, the Green Line from Hawthorne Station to Redondo Beach Station will be de-energized and a bus bridge utilized to connect the line.

- **Los Angeles Streetcar:** The Los Angeles Streetcar is a project that is advancing under the Los Angeles County Measure M funding. Although it has not been identified for near term funding by LACMTA, the preliminary design is proceeding. The LA Streetcar staff is requesting RTSB staff to examine Commission GO 143-B requirements and suggests that the American Society of Mechanical Engineers (ASME) Standard RT-1 regarding vehicle crashworthiness/strength requirements should be considered a viable alternative to the 2 g. buff strength requirements of Commission GO 143-B.
- **LAWA Automatic People Mover Project:** The Los Angeles World Airports is in the Environmental Document phase for their Landside Access Modernization Project and constructing the Automatic People Mover is part of the overall project. Below is their current timeline:

Final EIR released – February 2017

Board of Airport Commissioners Certified Final EIR – March 2017

City Council approved project and entitlements – June 2017

Final Environmental Assessment approved – Dec 2017

Award of Contract for Automated People Mover – First quarter 2018

The project is fully funded but it is a Design, Build, Finance, Operate and Maintain project and LAWA is still going through the environmental phase, therefore the contract will not be awarded until early 2018. As a result, they will not have a contractor on board to do the design until later in 2018 and a Safety Certification Plan for CPUC review in 2018.

- **Orange County Transportation Authority (OCTA) OC Streetcar Project:** The OC Streetcar 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 trackway includes operations in the Pacific Electric (PE) Right-of Way and along Santa Ana Boulevard and 4th Street. The Project includes 10 stations in the eastbound direction and 10 stations in the westbound direction.

A new operations and maintenance facility will be bordered by 5th Street to the north, the PE Right-of-Way to the south, approximately 500 feet west of Raitt Street to the east, and approximately 1,000 feet west of Raitt Street to the west. Construction is planned for mid-2018 and revenue service begins late 2020.

RTSB staff is attending the System Safety Review Committee Meetings and Fire Life Safety Committee meetings for this project. The Safety and Security Certification Plan (SSCP) for the project has been reviewed, and staff prepared Resolution ST-191 accepting the SSCP for consideration. The Commission approved the Safety and Security Certification Plan (SSCP) at its meeting on April 27, 2017.

- **San Francisco Municipal Transportation Agency (SFMTA) LRV4 Procurement to Expand and Replace the Rail Fleet:** In September of 2014, SFMTA awarded the contract to Siemens to provide up to 260 new light-rail vehicles, to replace and expand the existing fleet. The first new car arrived in January of this year, with six (6) added in subsequent months, for a total of seven (7) cars received. The cars are now undergoing qualification testing on site to ensure integration with the existing and newly installed systems of Automatic Train Control System (ATCS), radio replacement, passenger information system and new fare collection system. This on-going project is expected to be completed in the next ten years in given phases of five needs. SFMTA and their contractor have met with CPUC staff to discuss the overall project and the requirements for submittal of the Safety and Security Certification Verification Report (SCVR).

The safety and security certification-related aspects of this project, scheduled for full completion in 2027, are being monitored by RTSB through regular meetings, review of records produced pursuant to the requirements of the project Safety and Security Certification Plan (SSCP) (e.g. Certificates of Conformance and associated supporting documentation for certifiable elements at pertinent project milestones), and participation in witness point activities (e.g. vehicle testing).

On October 25, 2017, SFMTA submitted the Safety and Security Certification Verification Report (SCVR) package for Siemens Car 2006, Procurement of New Light Rail Vehicles (LRV4)

Contract No. SFMTA 2013-19, which certifies completion of the activities outlined in the SSCP for the project and specifically for Car 2006. The SCVR requests Operation of Car 2006 running only as a single car, until more cars are certified and readied for service for the multi-car testing.

On November 2, 2017, staff participated in the ride check on LRV4 car #2006 in response to the SCVR for the initial LRV4 car (#2006). The ride check began and ended at MME yard. During the ride check, the test train #2006 operated along portions of the T and J Lines and the entire N Line in manual mode and portions of the Muni metro subway tunnel in ATCS mode. Staff evaluated many aspects of car 2006 during the ride check including ride quality and performance of the LRV operating in manual and ATCS modes, closing force of the LRV's doors, roll back test on a hill on the J-Line right of way north of Church St and 20th St, and clearances between the platform edges and the vehicle doorsill pursuant to GO 143-B, etc. On November 3, 2017, staff sent a letter signed by Deputy Director, Roger Clugston, to SFMTA, regarding Car 2006 of the LRV4 Project and SFMTA's SCVR submittal. This letter approves SFMTA's request to operate the LRV4 car 2006 in revenue service, operating only as a single car, after the corrections are made to three issues of concern identified in the letter.

The first day of revenue service operation of LRV4 #2006 commenced on 11/17/17. Currently, the car is running in manual mode because a revision of Thales software required for ATCS operation is needed in order for the new cars to run in ATCS mode. Per SFMTA, Car 2005 was the second car certified as it fulfilled the requirement under the SFMTA LRV4 Safety and Security Certification Program. On 1/3/2018, SFMTA submitted their Notice of Intent to operate Car 2005 on or after 1/24/2018 along with the Car 2005 safety and security certification open items list to staff. Placement of Car 2005 into single car revenue service operation is currently pending RTSB's approval of SFMTA's request for the same. The next car SFMTA plans to certify is Car 2005.

San Diego Trolley, Inc. (SDTI) Mid-Coast Corridor Project: The San Diego Metropolitan Transit System Mid-Coast Corridor Project is a 10.9-mile double-track light-rail transit line, which begins at the Old Town Transit Center in San Diego. The project provides future SDTI

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revenue service to the Linda Vista, Clairemont, University California San Diego (UCSD) campus and the University City areas. The additional stations will be: Tecolote Road, Clairemont Drive, Balboa Avenue, Nobel Drive, potential Veterans Administration (VA) Medical Hospital, UCSD West (along Voigt Drive), UCSD East (along Voigt Drive), Executive Drive, and University Town Center (UTC) Transit Center.

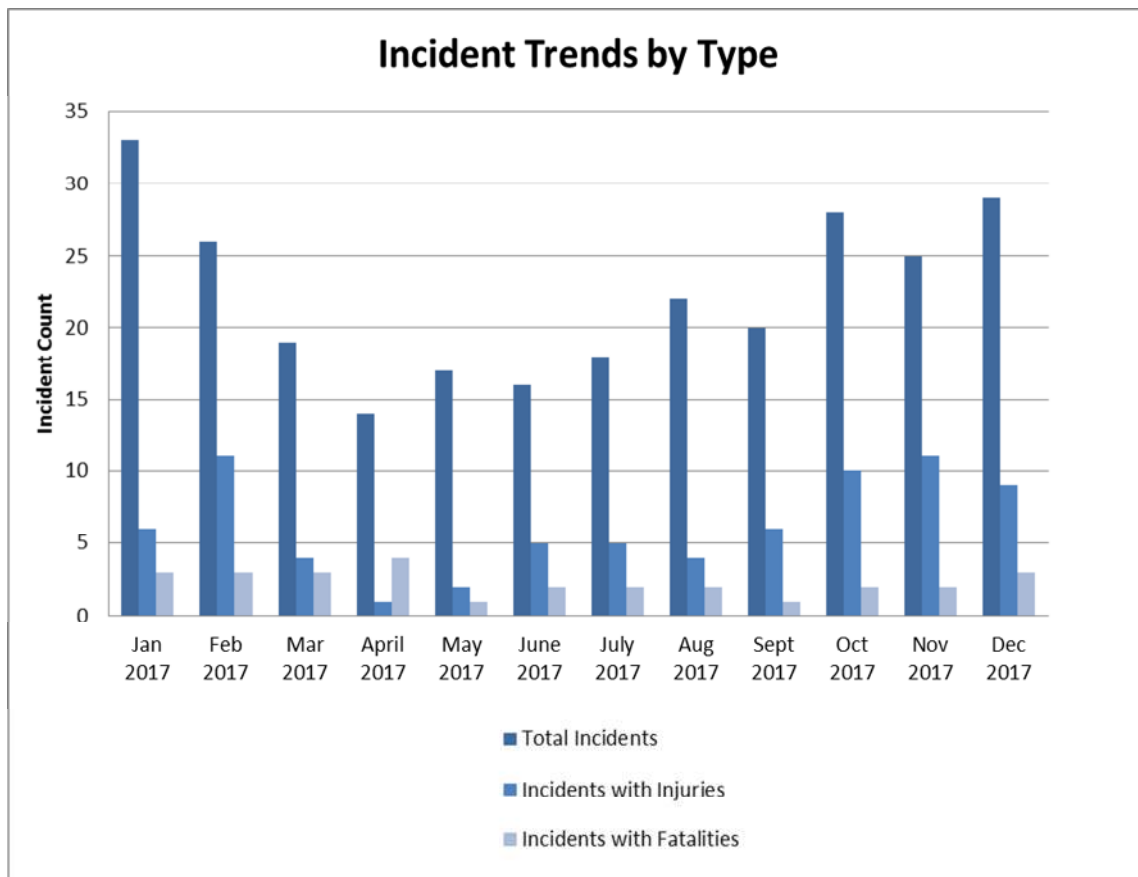
Construction started in 2016 and revenue service is planned to begin late 2021. RTSD staff is attending the System Safety Review Committee Project Meetings and Fire Life Safety Committee Project Meetings. The Commission approved Resolution ST-186, which approves the Safety and Security Certification Plan (SSCP), on its January 19, 2017 meeting.

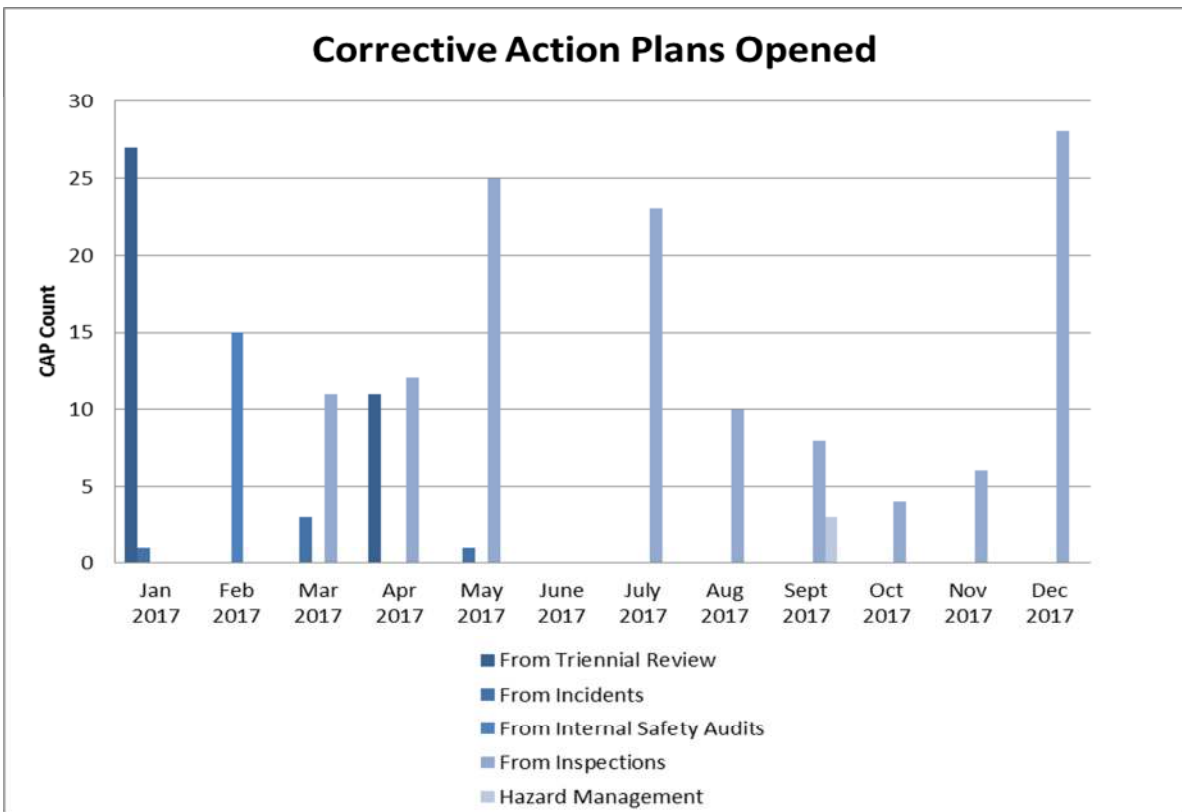
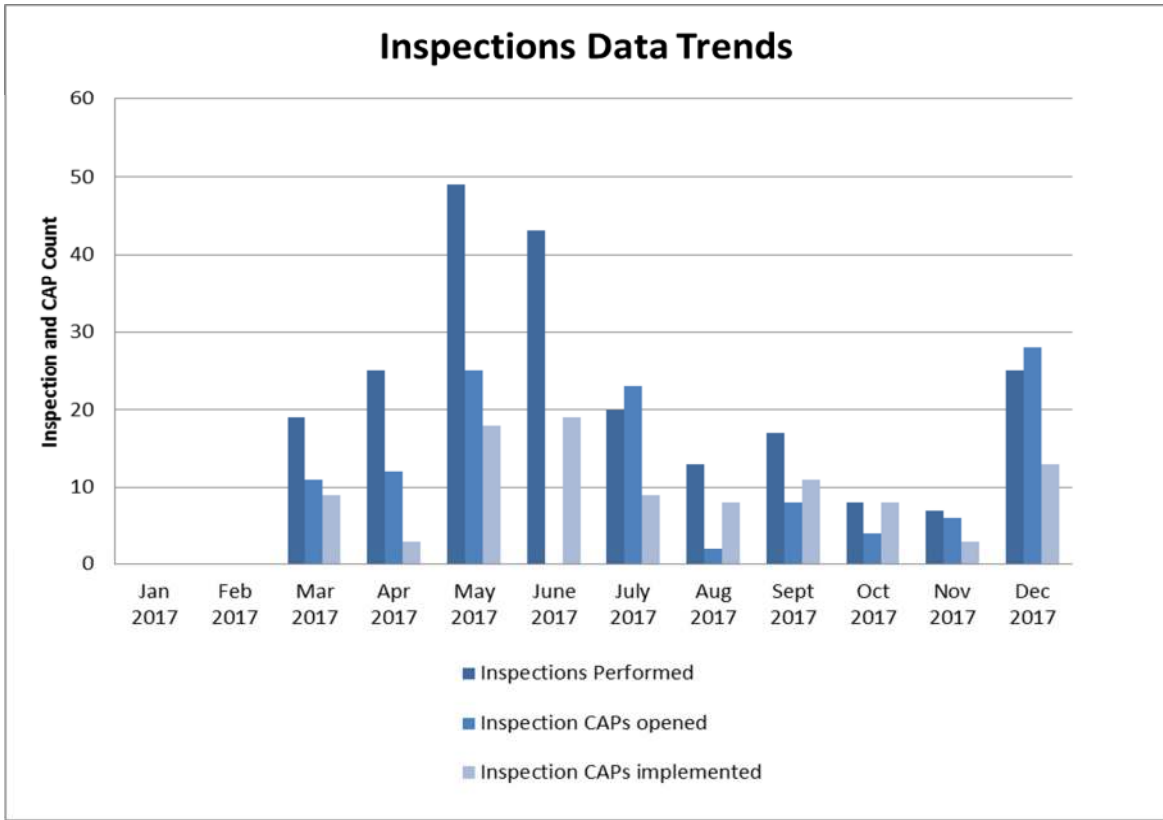
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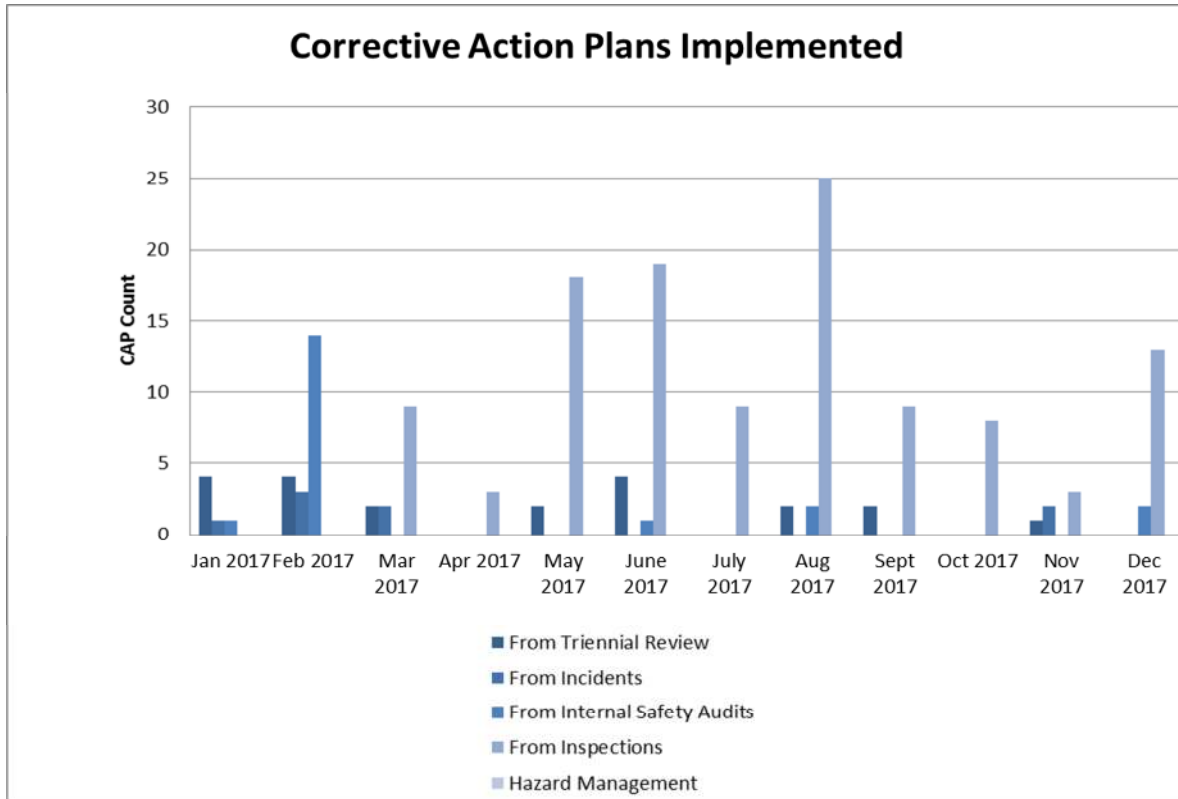
Investigations	
Incidents Reported	29
Incident Investigations Closed	2
Complaints Investigated	–
Rail Transit Inspections	25
Triennial Review	–
Corrective Action Plans	
New Corrective Action Plans	28
From Triennial Review	–
From Incidents	–
From Hazard Management	–
From Internal Safety/Security Audits	–

From Rail Transit Inspections	28
Closed Corrective Action Plans	15
From Triennial Audits	–
From Incidents	13
From Hazard Management	–
From Internal Safety/Security Audits	2
From Rail Transit Inspections	–

ONGOING DATA / TRENDS







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