**2015**

**TRIENNIAL SAFETY REVIEW OF THE**

**NORTH COUNTY TRANSIT DISTRICT (NCTD)**

CALIFORNIA PUBLIC UTILITIES COMMISSION

SAFETY AND ENFORCEMENT DIVISION

RAIL TRANSIT SAFETY BRANCH

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102



Final Report

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Safety and Enforcement Division

2015 TRIENNIAL SAFETY REVIEW OF

THE NORTH COUNTY TRANSIT DISTRICT (NCTD)

ACKNOWLEDGEMENT

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1. **EXECUTIVE SUMMARY**

The Rail Transit Safety Branch (Staff) of the Safety and Enforcement Division (SED) of the California Public Utilities Commission (Commission) conducted an on-site safety review of the North County Transit District (NCTD) system safety program in August 2015.

Staff performed records reviews of NCTD safety programs and inspected tracks & switches, grade crossings, and light rail vehicles from August 18-27, 2015. An entrance meeting held on August 18, 2015, which included executive level management and representatives from CPUC, NCTD, and the San Diego Association of Governments (SANDAG) preceded the records reviews. Staff provided preliminary review findings and recommendations to NCTD and SANDAG management and representatives at the end of each records review and also at the formal exit meeting held at NCTD Offices on September 10, 2015.

The review results indicate NCTD has a comprehensive system safety program and has effectively implemented its System Safety Program Plan (SSPP). However, staff noted exceptions during the review which are described in the Findings and Recommendations checklist section. Staff issued 25 recommendations for corrective action from the 35 checklists.

The Report Introduction is presented in Section 2. The Background, in Section 3, contains a description of the NCTD rail system. Section 4 describes the review procedure, and Section 5 provides the review findings and recommendations. The 2015 NCTD Safety Review Abbreviations List is found in Appendix A, Checklist Index and Recommendations List are included in Appendices B and C, respectively. The Safety Review Checklists are presented in Appendix D.

1. **INTRODUCTION**

The Commission’s General Order (GO) 164-D, *Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems*, and the Federal Transit Administration’s (FTA) Rule, Title 49 Code of Federal Regulations (CFR) Part 659, *Rail Fixed Guideway Systems: State Safety Oversight*, require the designated State Safety Oversight Agencies to perform a review of each rail transit agency’s system safety program plan a minimum once every three years. The purpose of the triennial review is to verify compliance and evaluate the effectiveness of each rail transit agency’s System Safety Program Plan (SSPP) and to assess the level of compliance with GO 164-D as well as other Commission and regulatory safety requirements. This is the third triennial safety review of NCTD and the previous review occurred May 2012.

On July 17, 2015, Staff e-mailed a letter to the North County Transit District (NCTD) Executive Director advising that the Commission’s safety review had been scheduled for August 18-27, 2015. The letter included 35 checklists that served as the basis for the review. 5 checklists outlined inspections of track, switches, interlockings, signals, grade crossings, and light rail vehicles. 4 checklists focused on observing Train Operations for compliance to NCTD’s Operating Rules. The remaining 26 checklists focused on assessing the effective implementation of the NCTD SSPP and verifying compliance. Two of these checklists reviewed SANDAG’s policies and procedures. SANDAG is the independent agency responsible for the design, construction, safety certification, and implementation of North County Transit District (NCTD) capital projects.

The 2015 NCTD triennial safety review consisted of on-site physical inspections of the system, observations of train operations, and records reviews to verify compliance of SSPP elements, NCTD standard operating procedures (SOP), and other NCTD rules. At the conclusion of each review activity, staff provided NCTD and SANDAG representatives with a summary of the preliminary findings and discussed any recommendations for corrective action. An exit meeting with NCTD was held on September 10, 2015, that summarized all the recommendations.

1. **NORTH COUNTY TRANSIT DISTRICT BACKGROUND**

The San Diego North County Transit District (NCTD) was created by passage of Senate Bill 802 in 1975 and started operations as North County Transit District on July 1, 1976. The agency's responsibility is to plan, develop, and implement a fixed route system throughout North County. The region is described as the San Diego County-Orange County border at the northern end, City of La Jolla at the southern end, and from the western coast of the City of Oceanside to the City of Ramona at the eastern end. In June 1994, NCTD created San Diego Northern Railroad (SDNR) to operate the “Coaster” commuter rail which provides service from the City of Oceanside to downtown San Diego. SDNR is responsible for maintaining the San Diego rail subdivision, purchased in 1994, which extends from the San Diego County-Orange County border south to downtown San Diego for commuter rail service and extends from City of Oceanside to City of Escondido for Sprinter light rail service.

NCTD’s jurisdiction is 1100 square miles serving a population of over 1.0 million. The Coaster and Sprinter combined railroad right of way is 82 miles.

The San Diego Regional Transportation Consolidation Act (Senate Bill 1703 effective January 1, 2003) directed consolidation of the San Diego Association of Governments (SANDAG) with the capital projects functions of the Metropolitan Transit Development Board (MTDB) and NCTD. The planning, programming, project development, and construction functions of MTDB and NCTD were shifted to SANDAG to create a consolidated regional transportation planning and development agency. Operations and maintenance functions of the NCTD system remained with NCTD.

NCTD has contracted out maintenance and operations of the Sprinter system. At the time of the Review, Herzog Transit Services, Inc. (HTSI) held the contract for dispatching on both the Escondido and the San Diego Subdivisions. Herzog Technologies, Inc. (HTI) held the contract for maintenance of signal equipment on both the Escondido and the San Diego Subdivisions. Transit America Services, Inc. (TASI) helds the contract for maintenance of track and right-of-way for both the Escondido and San Diego Subdivisions. TASI sub-contracted maintenance of track to Kabler. Transdev held the contract of operations and maintenance of Sprinter rail equipment. Transdev sub-contracted maintenance of rail equipment to Bombardier. And First Transit, Inc. held the contract for revenue facility maintenance. On July 1, 2016, NCTD enterd into a consolidated rail contract with Bombardier which will be responsible for dispatching, train operations, maintenance of signal, maintenance of track, and maintenance of rail equipment for both the Sprinter and Coaster rail systems.

NCTD is in the process of finalizing seventy-nine (79) Standard Operating Procedures (SOP). These SOPs will aid in directing the oversight functions of NCTD employees over the agency’s contractor(s) for Operations, Maintenance of Way, Maintenance of Signal, Maintenance of Equipment, Maintenance of Facilities, and Dispatching. These SOPs will also serve as a baseline for NCTD’s contractor(s) and what functions are expected of them.

**NCTD Sprinter Rail System Description**

The NCTD Sprinter light rail system consists of 22 miles and operates through the cities of Oceanside, Vista, San Marcos, and Escondido. Sprinter revenue service began on March 9, 2008, there are 15 light rail stations, and the average ridership is 4,500 – 9,500 per day. The Escondido Transit Center Station and Vista Transit Center Station are the main transfer stations for light rail/bus connections and the Oceanside Transit Center Station provides service connections to Amtrak, Coaster Commuter Train, and the NCTD Breeze bus system. Revenue service runs from 4:00 a.m. to 9:00 p.m. seven days a week with 30-minute headways and extended service until 12:00 a.m. Friday and Saturday nights. The Sprinter vehicles, manufactured by Siemens AG Germany, are classified as Diesel Multiple Unit (DMU) light rail vehicles equipped with direct-drive diesel powered engines similar to a bus. NCTD has a total of 12 trains for their Sprinter system. Portions of NCTD track are jointly used by light rail transit and freight operations under scripted temporal separation. An FRA waiver grants NCTD conditional relief from certain FRA safety regulations provided that NCTD maintains temporal separation. Freight operations by Burlington Northern Santa Fe (BNSF) operate on the Escondido Subdivision twice a week during the late night/early morning hours under the terms of the FRA waiver. Simultaneous operations of light rail transit and freight trains on the same tracks do not occur.

NCTD dispatches locally from the Sprinter Operations Facility in Escondido, California. The Sprinter system is governed by a Centralized Train Control (CTC) signal system for the safe movement of all trains operating on the system including the BNSF freight services.

**Sprinter Train Stations**

The Sprinter’s fifteen stations are as follows: Oceanside Transit Center Station, Coast Highway Station, Crouch Street Station, El Camino Real Station, Rancho Del Oro Station, College Station, Melrose Station, Vista Transit Center, Civic Center-Vista Station, Buena Creek Station, Palomar Station, San Marcos Civic Center, California State University San Marcos, Nordahl Station, and Escondido Transit Center Station. 4. **REVIEW PROCEDURE**

Staff conducted the review in accordance with the Rail Transit Safety Section Procedure RTSS-4, *Procedure for Performing Triennial On-Site Safety and Security Reviews of Rail Transit Agency*. Staff developed thirty-five (35) checklists to cover various aspects of system safety responsibilities based upon Commission and FTA requirements, the NCTD SSPP, safety related NCTD documents, and general CPUC staff knowledge of the NCTD system. The 35 checklists are included in Appendix C.

Each checklist identifies safety-related elements and characteristics reviewed or inspected by staff. The checklists reference criteria are regulatory requirements, NCTD rules and procedures, and other documents that establish the safety program requirements. The completed checklists include review findings and recommendations if the review findings indicate non-compliance. The methods used to perform the review include:

1. Discussions with NCTD management
2. Reviews of procedures and records
3. Observations of operations and maintenance activities
4. Interviews with rank and file employees
5. Inspections and measurements of equipment and infrastructure

The review checklists concentrated on requirements that affect the safety of rail operations and are known or believed to be important in reducing safety hazards and preventing accidents.

**5. FINDINGS AND RECOMMENDATIONS**

The reviewers and inspectors conclude that NCTD Sprinter system has a comprehensive SSPP and is effectively implementing the plan. Overall, the review results confirm that NCTD is in compliance with its SSPP.

However, Staff has identified areas where changes should be made to further improve NCTD’s system safety program. The review results are derived from the following staff activities; operational observations, documents reviewed, issues discussed with management, and inspections. The review identified findings which are listed below and issued 25recommendations from the 35 checklists:

1. U**Policy Statement & Authority for SSPP (Executive Management Involvement and Commitment to Safety)**

No findings of non-compliance, no recommendations.

1. U**SSPP Goals and Objectives**

No findings of non-compliance, no recommendations.

1. U**Overview of Management Structure**

No findings of non-compliance, no recommendations.

1. U**SSPP Control and Update Procedure**

No findings of non-compliance, no recommendations.

1. U**SSPP Implementation Activities and Responsibilities**

No findings of non-compliance, no recommendations.

1. U**Hazard Management Process**

No findings of non-compliance, no recommendations.

1. U**System Modification Process**

No findings of non-compliance, no recommendations.

1. U**Safety and Security Certification**

No findings of non-compliance, no recommendations.

1. U**Safety Data Collection and Analysis**

No findings of non-compliance, no recommendations.

1. U**Accident/Incident Investigations**

No findings of non-compliance, no recommendations.

1. U**Emergency Management Program**

No findings of non-compliance, no recommendations.

1. U**Internal Safety Audits**

Findings:

1. During the three year cycle 2012-2014, Staff noted that not all 21 elements of the SSPP were being audited by NCTD as required by CPUC GO 164-D requirements. NCTD did not audit the following elements during 2012 to 2014:
2. First 5 elements of their SSPP (#1, #2, #3, #4, and #5)
3. Safety and Security Certification (#8)
4. Internal Safety Audits/Reviews (#12)
5. Procurement Process (#21).
6. NCTD did not submit all draft checklist(s) in advance prior to the scheduled audit(s).

Recommendations:

1. NCTD should audit all 21 elements of the SSPP as required by GO 164-D.
2. NCTD should follow GO 164-D, section 5.4 requirements and submit draft checklist(s) prior to the audit.

13-A**.** U**Operating Rules Compliance**

No findings of non-compliance, no recommendations.

13-B. U**Operations Safety Compliance Program Inspection – CPUC Operating Inspector**

Findings:

1. NCTD MOW contractor EIC’s did not know the safety rule of the week when giving their job briefings.
2. NCTD and its contractors have different definitions of where the “foul zone” is or when a worker is clear of the “foul zone”.

Recommendations:

1. NCTD should ensure a process exists that ensures EIC’s are in complete understanding of all aspects of their Job Briefing forms before assuming duties.(49 CFR 214.353)
2. NCTD should develop one definition for a foul zone for ALL people accessing the right-of-way.(GO172, section 3.1)

13-C. **Rules Compliance: Operator, Controller, and Maintenance Personnel Hours of Service**

No findings of non-compliance, no recommendations.

13-D. **Rules Compliance: Contractor Safety Program**

 No findings of non-compliance, no recommendations.

13-E. **Rules Compliance: Operating Rules and Maintenance Procedures Manual and Special Instruction Revisions**

 Findings:

1. Staff determined that when revisions are necessary to SOPs and TTSI, there is no documentation in a memorandum to file, which provides a summary of results and appropriate manager determination regarding revisions needed.
2. There is no sign-in procedure to ensure all Train Operators and Dispatchers received a copy of new and/or revised issues.
3. When CPUC Staff is issued operating rules or General Orders, the issuance and communication is not tracked to ensure CPUC Staff has the latest revisions.

 Recommendations:

 5. NCTD should create a formal process for operations procedures review. (SSPP, Section 13.0)

 6. NCTD should initiate a sign-in procedure to ensure all appropriate personnel receive new and/or revised issues. (GO 143-B, Section 13.01)

13-F. **Rules Compliance: Operations Control Center**

 Findings:

1. HTI does not have a written Preventative Maintenance Plan or Disaster Recovery Plan for NCTD’s CTC system.
2. HTI does not have a list of critical assets for NCTD’s CTC system.
3. HTI could not show that NCTD’s CTC system was monitored on a daily basis other than a verbal statement that NCTD’s system is being monitored.
4. HTI could not show how a software failure would be addressed on NCTD’s CTC system other than the CTC system has active mirrored servers, which only prevent system failure due to hardware failures. Mirrored systems do not address software failures such as computer viruses and software corruption.
5. HTI could not show that NCTD’s CTC system is backed up on a regular basis.
6. HTI does not have a scheduled window of time for NCTD’s CTC system maintenance.
7. Per RFP 10054, Section 05.02.1-1a - System Availability, it states that NCTD’s CTC system will be up 24 hours a day, 7 days a week and 365 days per year. Staff was given records of NCTD’s CTC system to review, which shows the CTC system was out of service during revenue hours for a total of 71 times, though the time of outage was not always documented.

 Recommendations:

1. NCTD should require HTI to create and follow a detailed written Preventive Maintenance and Disaster Recovery Plan for NCTD’s CTC system per HTI’s Rail CTC Dispatch Configuration, System Recover and Maintenance Plan for NCTD, and 49 CFR 236, Section 18.
2. NCTD should require HTI to create a critical assets list for NCTD’s CTC system to show which machines are critical to NCTD’s train movement functions. NCTD should require HTI to have specific monitoring and maintenance schedules for the critical machines per HTI’s Rail CTC Dispatch Configuration, System Recover and Maintenance Plan for NCTD, and 49 CFR 236, Section 18.
3. NCTD should require HTI to create a detailed plan to address software issues such as viruses, data corruption, etc. per HTI’s Rail CTC Dispatch Configuration, System Recover and Maintenance Plan for NCTD, and 49 CFR 236, Section 18.
4. NCTD should require HTI to back up NCTD’s CTC system, (TDMS, Databases, etc.) on a regular basis per 49 CFR 236, Section 18.
5. NCTD should require HTI to create a plan to reduce the amount of outages of NCTD’s CTC system to comply with the requirements of RFP 10054, Section 05.02.1-1a.

14-A. U**Facilities and Equipment Inspections: Non-Revenue Facilities**

 Findings:

1. NCTD contractors (TASI) did not fully fill out Daily Inspection reports; “Initials” field was left blank for all inspections.
2. NCTD contractors (TASI) were unable to produce original daily and monthly facility inspection documents. Documents seem to be repeating photocopies due to recurring hand-check marks.

 Recommendations:

1. NCTD should review inspection documents of their contractors for completeness and accuracy.

14-B. **Facilities and Equipment Inspections: Stations and Emergency Equipment**

No findings of non-compliance, no recommendations.

14-C. **Facilities and Equipment Inspections: Bridges, Tunnels, and Aerial Structures**

No findings of non-compliance, no recommendations.

14-D.  **Facilities and Equipment Inspections: Signal Communication, Train Control, Grade Crossing**

Findings:

1. Plans not correct. (At hale Ave Highway-rail grade crossing)
	1. Cantilevers 1RA, 2RA, 3RA show 2 pair of flashing lights per cantilever. Only one pair of flashing lights per cantilever is installed in the field.
2. Plans not correct. (As-built drawings are needed for Buena Creek Rd Highway-rail Grade Crossing.)

 Recommendations:

1. NCTD should maintain a copy of crossing as-built drawings on-site.(49 CFR 234)
2. NCTD should maintain crossing configurations to appropriate as-built standards.(49 CFR 234)

14-E**. Facilities and Equipment Inspections: Signal Communication, Train Control, Grade Crossing**

No findings of non-compliance, no recommendations.

14-F. **Equipment Maintenance Program: Measuring and Testing Instrumentation**

No findings of non-compliance, no recommendations.

15-A. U**Maintenance Audits and Inspections – Light Rail Vehicles**

 Findings:

1. Staff reviewed daily inspection reports that are being completed by Hi-rail operators. Staff found documentation provided to be incomplete and errors in the following areas:
	1. Inaccurate odometer reading
	2. Signatures
	3. Dates
	4. Defects found
	5. Forms not being properly reviewed by management.
2. Staff inspected Hi-rail Vehicle #20 and found the following;
	1. Passenger side boom indicator broken and welding rod used as repair. Boom indicator should be repaired or replaced as intended.
	2. The 5/16 cable on truck was tested annually. Records show 5/16 cable on the boom has a maximum rating of 9,700 lbs. The cable block and truck shows maximum 10,000 lbs. fully retracted. Also, records show there is 5,000 ft. of cable tested and another record showing 311 ft. cable tested.
3. Staff noted invalid records and ratings provided for review

 Recommendations:

1. NCTD should provide Hi-rail operators training so that they have a clear understanding of how to properly complete an accurate daily inspection report.
2. NCTD management should follow up and review each daily inspection report.
3. NCTD should maintain Hi-rail vehicle #20 to applicable standards.

15-B. **Maintenance Audits and Inspections – Train Control and Signal Systems Maintenance**

 Findings:

1. Crossing flashers not properly aligned at Hale Ave and San Marcos Blvd crossings.
2. Gate arms and lights not properly maintained at Hale Ave crossing.
3. Faded pavement markings at Hale Ave crossing.

 Recommendations:

1. NCTD should maintain flashers to be appropriately aligned for traffic.(49 CFR 234)
2. NCTD should maintain crossing gate arms and arm lights to appropriate standards.(49 CFR 234)
3. NCTD should contact City to maintain pavement markings per MUTCD 8B.27.

15-C. U**Maintenance Audits and Inspections –Tracks and Turnouts**

Findings:

1. Inconsistent date transfers from “Switch and Frog Inspection and Test Report” to Raildocs
2. Dates on “Switch and Frog Inspection and Test Report” are in Month/Year format.

 Recommendations:

1. NCTD should develop a process to ensure inspection dates are properly entered into Raildocs.(49 CFR 213.241)
2. NCTD should update " Switch and Frog Inspection and Test Report” to have a correct Date format of Month/Day/Year. (49 CFR, 213.241 (b))

16-A. U**Training and Certification Program: Train Operatos, Controllers, and Line Supervisors**

No findings of non-compliance, no recommendations

16-B. **Training and Certification Program: LRV Maintenance Employees**

No findings of non-compliance, no recommendations

16-C. **Training and Certification Program: Wayside Maintenance Employees**

No findings of non-compliance, no recommendations.

17.U**Configuration Management**

No findings of non-compliance, no recommendations.

18. U**Local, State, and Federal Requirements**

No findings of non-compliance, no recommendations.

19.U**Hazardous Materials Program**

No findings of non-compliance, no recommendations.

20.U**Drug and Alcohol Program**

No findings of non-compliance, no recommendations.

21. U**Procurement**

Findings:

1. NCTD organization chart needs to be updated to reflect current practices and positons accurately. The current SSPP shows Organization Chart has not yet been updated to reflect that Procurement is not under the General Counsel.
2. NCTD could not produce any past compliance officer inspection reports or Safety inspection reports related to oversight of procurement process as per Procurement and Contracts Administration Department Policies and Procedures Procurement Manual and NCTD SSPP.

 Recommendations:

1. NCTD should revise its SSPP organization chart to reflect current reporting structure.
2. NCTD should provide documentation for all QC testing as per their Procurement and Contracts Administration Department Policies and Procedures Procurement manual and provide documentation to CPUC upon request as per GO 143-B requirements.

22.UP**Personal Electronic Device Use / In-Cab Cameras**

 Findings:

1. NCTD and all of its contractors do not have a policy that includes discipline up to and including discharge. With the exception of Bombardier (which has a progressive discipline policy) and Kabler, the policy is absolute zero tolerance with no appeals process.

 Recommendations:

1. NCTD should create ONE PED policy to govern its self and its contractors, that covers all aspects of GO 172; a policy to include discipline up to and including discharge and an appeals process. (GO172, Section 5)

**APPENDICES**

A. Abbreviations List

B. NCTD 2015 Safety Review Checklist Index

C. NCTD 2015 Safety Review Recommendations List

D. NCTD 2015 Safety Review Checklists

APPENDIX A

ABBREVIATIONS LIST

|  |  |
| --- | --- |
| **Acronym** | 263B**Definition** |
| CAP | Corrective Action Plan |
| CEO | Chief Executive Officer |
| CFR | Code of Federal Regulations |
| CPUC | California Public Utilities Commission |
| DMU | Diesel Multiple Unit |
| FTA | Federal Transit Administration |
| GO | General Order |
| HTI | Herzog Technologies, Inc. |
| HTSI | Herzog Transit Services, Inc. |
| ISA | Internal Safety Audit |
| LRV | Light Rail Vehicle |
| MOU | Memorandum Of Understanding |
| MTS | Metropolitan Transit System |
| NCTD | North County Transit District |
| SANDAG | San Diego Association of Governments |
| SED | Safety and Enforcement Division |
| SOP | Standard Operating Procedure |
| SSPP | System Safety Program Plan |
| T/O | Train Operator |
| TASI | Transit America Services, Inc. |

**APPENDIX B**

**2015 NCTD SAFETY REVIEW CHECKLIST INDEX**

|  |  |  |  |
| --- | --- | --- | --- |
| 19BNo. | 197BElement / Characteristic | 198BNo. | 199BElement / Characteristic |
| 200B1 | Policy Statement & Authority for SSPP  | 11314-A | 256BFacilities Inspections: Non-Revenue Facilities |
| 203B2 | 204BSSPP Goals and Objectives | 11314-B | 256BFacilities and Equipment Inspections: Stations and Emergency Equipment |
| 207B3 | 208BSSPPSSSSPP Overview of Management Structure | 11314-C | VV256BFacilities and Equipment Inspections: Tunnels, Bridges, and Aerial Structures |
| 211B4 | 212BSSPP Control and Update Procedure | 11314-D | 256BFacilities and Equipment Inspections: Signal Communication, Train Control, Grade Crossing |
| 215B5 | 216BSSPP Implementation Activities & Responsibilities | 11314-E | 256BEquipment Maintenance Program: Measuring and Testing Instrumentation  |
| 219B6 | 220BHazard Management Process | 259B15-A | 260BMaintenance Audits and Inspections – Rail Vehicle Inspection |
| 223B7 | 224BSystem Modification Review and Approval Process | 205B15-B | 206BMaintenance Audits and Inspections – Grade Crossing Safety Inspection - Signal |
| 227B8 | 228BSafety and Security Certification | 209B15-C | 210BMaintenance Audits and Inspections – Switch and Turnout Inspection |
| 231B9 | 232BSafety Data Collection and Analysis | 16-A | Training Certification Programs: Train Operators, Controllers, and Line Supervisors |
| 235B10 | 236BAccident/Incident Reporting & Investigation | 16-B | Training Certification Programs: LRV Maintenance Employees |
| 239B11 | 240BEmergency Management Program | 16-C | Training Certification Programs: Wayside Maintenance Employees |
| 243B12 | 244BInternal Safety Audits | 237B17 | 238BConfiguration Management  |
| 247B13-A | 248BRules Compliance: Observation and Enforcement | 241B18 | 242BLocal, State, and Federal Requirements: Employee Safety Program |
| 251B13-B | 252BRules Compliance and Operations Safety Compliance | 245B19 | 246BHazardous Materials Program |
| 11313-C | Hours of Service | 249B20 | 250BDrug and Alcohol Program |
| 11313-D | Rules Compliance: Contractor Safety Program | 253B21 | 254BProcurement |
| 11313-E | Rules Compliance: Operating Rules and Maintenance Manuals | 257B22 | CPUC GO 172 – Personal Electronic Device Prohibitions/In-cab Cameras |
| 11313-F | Operations Control Center |  |  |

**APPENDIX C**

**2015 NCTD SAFETY AND REVIEW RECOMMENDATIONS LIST**

|  |  |  |
| --- | --- | --- |
| No. | Recommendation | Checklist No. |
| 1 | NCTD should audit all 21 elements of the SSPP as required by GO 164-D. | 12 |
| 2 | NCTD should follow GO 164-D, section 5.4 requirements and submit draft checklist(s) prior to the audit. | 12 |
| 3 | NCTD should ensure a process exists that ensures EIC’s are in complete understanding of all aspects of their Job Briefing forms before assuming duties.(49 CFR 214.353) | 13-B |
| 4 | NCTD should develop one definition for a foul zone for ALL people accessing the right-of-way.(GO172, section 3.1) | 13-B |
| 5 | NCTD should create a formal process for operations procedures review. (SSPP, Section 13.0) | 13-E |
| 6 | NCTD should initiate a sign-in procedure to ensure all appropriate personnel receive new and/or revised issues. (GO 143-B, Section 13.01) | 13-E |
| 7 | NCTD should require HTI to create and follow a detailed written Prevent Maintenance and Disaster Recovery Plan for NCTD’s CTC system per HTI’s Rail CTC Dispatch Configuration, System Recover and Maintenance Plan for NCTD, and 49 CFR 236, Section 18. | 13-F |
| 8 | NCTD should require HTI to create a critical assets list for NCTD’s CTC system to show which machines are critical to NCTD’s train movement functions. NCTD should require HTI to have specific monitoring and maintenance schedules for the critical machines per HTI’s Rail CTC Dispatch Configuration, System Recover and Maintenance Plan for NCTD, and 49 CFR 236, Section 18. | 13-F |
| 9 | NCTD should require HTI to create a detailed plan to address software issues such as viruses, data corruption, etc. per HTI’s Rail CTC Dispatch Configuration, System Recover and Maintenance Plan for NCTD, and 49 CFR 236, Section 18. | 13-F |
| 10 | NCTD should require HTI to regularly back up NCTD’s CTC system, (TDMS, Databases, etc.) on a regular basis per 49 CFR 236, Section 18. | 13-F |
| 11 | NCTD should require HTI to create a plan to reduce the amount of outages of NCTD’s CTC system to comply with the requirements of RFP 10054, Section 05.02.1-1a. | 13-F |
| 12 | NCTD should review inspection documents of their contractors for completeness and accuracy. | 14-A |
| 13 | NCTD should maintain a copy of crossing as-built drawings on-site.(49 CFR 234) | 14-D |
| 14 | NCTD should maintain crossing configurations to appropriate as-built standards.(49 CFR 234) | 14-D |
| 15 | NCTD should provide Hi-rail operators training so that they have a clear understanding of how to properly complete an accurate daily inspection report.  | 15-A |
| 16 | NCTD should follow up and review of each daily inspection report by management. | 15-A |
| 17 | NCTD should maintain Hi-rail vehicle #20 to applicable standards. | 15-A |
| 18 | NCTD should maintain flashers to be appropriately aligned for traffic.(49 CFR 234) | 15-B |
| 19 | NCTD should maintain crossing gate arms and arm lights to appropriate standards.(49 CFR 234) | 15-B |
| 20 | NCTD should contact City to maintain pavement markings per MUTCD  | 15-B |
| 21 | NCTD should develop a process to ensure inspection dates are properly entered into Raildocs.(49 CFR, 213.241) | 15-C |
| 22 | NCTD should update " Switch and Frog Inspection and Test Report” to have a correct Date format of Month/Day/Year. (49 CFR, 213.241 (b)) | 15-C |
| 23 | NCTD should revise its SSPP organization chart to reflect current reporting structure. | 21 |
| 24 | NCTD should provide documentation for all QC testing as per their Procurement and Contracts Administration Department Policies and Procedures Procurement manual and provide documentation to CPUC upon request as per GO 143-B requirements. | 21 |
| 25 | NCTD should create ONE PED policy to govern its self and its contractors, that cover all aspects of GO 172; a policy to include discipline up to and including discharge and an appeals process. (GO172, Section 5) | 22 |

**APPENDIX D**

**2015 NCTD SAFETY REVIEW CHECKLISTS**

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD)BAY |
| Checklist No. | 1 | Element | Policy Statement and Authority forSystem Safety Program Plan:Management Involvement andCommitment to Safety |
| Date of Audit | August 18, 201511:30-13:00 | Department(s) | NCTD Senior ManagementNCTD Safety |
| Auditors/ Inspectors | Daren GilbertStephen ArtusNoel TakaharaMike BorerMichael Lange (FRA Observer) | Persons Contacted | Matt TuckerDon FilippiSusan LuceroBryant AbelAdam Renteria |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Policy Statement and Authority for System Safety Program Plan:NCTD Senior Management Involvement and Commitment to Safety**Interview NCTD’s Executive Director to discuss:1. Source, frequency, and depth of safety information provided to Senior Management, whether safety is included as a regular topic at NCTD Senior Management meetings, and how safety information is communicated.
2. Methods and incentives included in the management performance system to facilitate a system safety culture within the organization.
3. Formal meetings held and attended by NCTD Senior Management to discuss safety performance, such as ongoing evaluation of goals and targets.
4. The Executive Director’s awareness of high priority safety issues related to operations and capital projects.
5. The Executive Director’s awareness of the status of all corrective actions generated by the Safety Department through internal safety and security audits, the hazard management process, accident/incident investigations, or other channels.
6. The Safety Department’s reporting relationship to NCTD’s executive and senior management, and management’s participation in safety activities.
7. Which individuals and departments are involved in making safety decisions and to what degree senior management is involved?
8. Scope of senior management involvement, coordination, and communication in developing SSPP revisions.
9. Is Safety included as a regular topic at NCTD Board Meetings and whether NCTD’s Executive Director provides updates and concerns?
10. The process for the periodic review of the resources devoted to safety by NCTD Executive Director and NCTD Executive Management Team.
11. The inclusion of safety responsibilities in job evaluations for managers, supervisors, and employees.
12. Does the Executive Director visit the Operations Control Center / Sprinter Operations Facility (SOF), Facilities Maintenance, and Wayside Maintenance and speak to rank and file employees to discuss their safety concerns?
 |
| Findings and Recommendations |
| Activities:1. The NCTD Executive Director described the Monthly Risk Register meeting and the quarterly General Managers meeting as examples where safety issues are addressed and communicated. The Monthly Risk Register meeting is broken up into separate meetings between NCTD management and each of its current major contractors. The quarterly General Managers meeting includes NCTD and all contractor management personnel together in one meeting in order to promote inter-departmental communication.
2. NCTD Executive Director informed that performance reviews and evaluations are based on the overall district goals of safety, cost containment, ridership, and revenue.
3. See 1 above.
4. NTCD Executive Director discussed an existing MOU that outlines SANDAG responsibilities in implementing NCTD major capital projects.
5. NCTD Executive Director (ED) stated that he generally gets updated on safety related issues during the risk register meetings. NCTD ED has access to the IndustrySafe software application / file management system. NCTD utilizes IndustrySafe for many of their processes including tracking of CAPs, open items, internal safety/security audits, etc.
6. The NCTD Chief of Safety reports directly to the NCTD ED.
7. NCTD ED noted that establishing the framework / philosophy is his responsibility and that team collaboration is expected.
8. NCTD ED informed that CH2M Hill was hired to perform a gap analysis between the current NCTD SSPP and the planned FTA transition to SMS processes. NCTD plans to develop a single SSPP to meet all regulatory safety oversight expectations/requirements for all modes that they operate (Bus, Rail Transit, and Commuter Rail). NCTD ED discussed development of over 100 standard operating procedures and requiring contractor conformance to the documents.
9. NCTD ED stated that the Public Information Office (PIO) will report to the board immediately whenever there is any major issue. NCTD Chief of Safety has given presentations during board meetings, last one being November 2014. In general, NCTD divisions take turns every quarter in a rotational manner making presentations to the board.
10. NCTD ED noted that NCTD safety-team members have increased from a total of 2 several years ago to 5 at the current level.
11. See 2 above.
12. NCTD ED stated that any employee of the system (NCTD or Contractor) can inform NCTD management of safety concerns via the whistle blower program. NCTD ED notes that in general his communication with contractors is directed towards their management rather than their rank and file employees as a matter of protocol.

Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 2 | Element | System Safety Program Plan:Goals and Objectives |
| Date of Audit | August 18, 201511:30-13:00 | Department(s) | NCTD Senior ManagementNCTD Safety |
| Auditors/ Inspectors | Daren GilbertStephen ArtusNoel TakaharaMike BorerMichael Lange (FRA Observer) | Persons Contacted | Matt TuckerDon FilippiMike WygantSusan LuceroBryant AbelAdam Renteria |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **System Safety Program Plan: Goals and Objectives**Interview NCTD Senior Management and review appropriate records to:1. Determine whether NCTD is making progress towards the ongoing goals and objectives identified in SSPP.
2. Obtain examples of how goals are evaluated (metrics and measures) and review documentation used to track NCTD activities to meet the goals and objectives. For example, if NCTD set a goal of reducing incidents by 10%, has this been achieved? How is this metric tracked and reported?
3. Determine how safety performance is reported to the Executive Director or other senior management (i.e., monthly or annual safety reports, quarterly viewgraph presentations, etc.).
4. Make a determination regarding the adequacy of the safety information provided to the Executive Director. Is the Executive Director receiving sufficient information to ensure NCTD is meeting its safety goals and objectives? Are rule violations and other key safety metrics being tracked and reported to the Executive Director?
5. Determine whether the stated goals and objectives should be revised.
6. Determine whether management responsibilities are adequately identified for the goals and objectives.
 |
| Findings and Recommendations |
| Activities:1. Based on discussion and document reviews it is apparent that NCTD as an organization is making an effort to implement IndustrySafe as a central tool for data collection / trending purposes, etc.
2. Reviewers were provided with reports such as near miss reports and incident reports. NCTD provided incident reports generated by IndustrySafe. According to one of the reports there were 15 crossing malfunctions and 60 signal malfunctions in the given time period of 1/1/15 – 8/31/15. In the same time period there were 64 pedestrian near misses and 44 vehicular near misses reported indicating that the NCTD near miss reporting program produces metrics that can be tracked and monitored.
3. The NCTD ED has access to IndustrySafe, attends the monthly Risk Register Meeting, the quarterly GM meeting, and regularly communicates with the NCTD Chief of Safety as necessary.
4. NCTD ED notes that he receives quarterly reports, risk register reports, and various IndustrySafe reports. Rules violations are tracked via IndustrySafe
5. The NCTD SSPP is in the process of major revision.

Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 3 | Element | Overview of Management Structure |
| Date of Audit | August 18, 201511:30-13:00 | Department(s) | NCTD Senior ManagementNCTD Safety |
| Auditors/ Inspectors | Daren GilbertStephen ArtusNoel TakaharaMike BorerMichael Lange (FRA Observer) | Persons Contacted | Don FilippiMike WygantSusan LuceroBryant AbelAdam Renteria |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Overview of Senior Management Structure**Interview NCTD Senior Management and review appropriate records to:1. Discuss NCTD’s process for integrating safety into NCTD operations and maintenance activities.
2. Identify any specific deficiencies in the safety program due to limitations in personnel or resources such as difficulties in maintaining schedules for SSPP updates, completing Internal Safety and Security Audits, or performing Accident/Incident Investigations.
3. Review Risk Roundtable Meeting minutes from the past twelve months to verify meetings were held according to the requirements in SSPP Element 6.2.4 (Risk Roundtable).
4. Does the Safety Department have personnel resources allocated to support interdepartmental coordination on safety issues and concerns?
5. Have NCTD’s Safety Department’s personnel and resources been cut or increased disproportionately with NCTD’s overall budget over the last three (3) years?
 |
| Findings and Recommendations |
| Activities:1. NCTD Management discussed a big organizational push to implement the IndustrySafe software application. NCTD personnel stated that the Safety department was directed to do robust investigations and push to improve the safety culture within the organization.
2. NCTD management informed the reviewers that the current agreements with their major contractors will expire soon and that they are exploring new contractor business models.
3. CPUC staff, when available, participate as observers in the Monthly Risk Roundtable meetings. NCTD provided the reviewers with meeting documentation used for the August TASI/HTI meeting. The documentation contained several incident (near miss, signal, track, etc.) related statistics along with a tracking sheet to monitor issues identified as ongoing operational/maintenance/safety issues. The tracking sheet listed several Coaster issues and did not appear to contain any SPRINTER issues.
4. The NCTD Safety department has been increased in recent years to bring in personnel experienced in disciplines including vehicles, operators, and projects.

Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 4 | Element | System Safety Program Plan:Control and Update Procedure |
| Date of Audit | August 18, 201511:30-13:00 | Department(s) | NCTD Senior ManagementNCTD Safety |
| Auditors/ Inspectors | Daren GilbertStephen ArtusNoel TakaharaMike BorerMichael Lange (FRA Observer) | Persons Contacted | Don FilippiMike WygantSusan LuceroBryant AbelAdam Renteria |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January2014
 |
| Element/Characteristics and Method of Verification |
| **System Safety Program Plan: Control and Update Procedure**Interview NCTD Safety Department and review appropriate records to:1. Verify the required annual SSPP review process is being implemented according to SSPP, Element 4.0 for the last 3 years.
2. Review responsibility for SSPP reviews and comments, and verify SSPP reviews and changes are comprehensive in scope, within required timeframes, and are approved by the designated staff.
 |
| Findings and Recommendations |
| Activities:1. CH2M Hill was hired to perform a gap analysis between the current NCTD SSPP and the planned FTA transition to SMS processes. NCTD plans to develop a single SSPP to meet all regulatory safety oversight expectations/requirements for all modes that they operate (Bus, Rail Transit, and Commuter Rail). A new draft SSPP is expected to be completed sometime in late 2015. NCTD personnel informed the reviewers that the new SSPP would include a crew resource management process and require managers/contractors to submit satisfactory ride check schedules in order to conduct more fatigue and complacency observations until the implementation of PTC on the commuter line. NCTD management also briefly discussed their recent inquiries into the utilization of FRA-compliant passenger vehicles on the Sprinter system.

Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 5 | Element | System Safety Program Plan:Implementation Activities and Responsibilities |
| Date of Audit | August 18, 201511:30-13:00 | Department(s) | NCTD Senior ManagementNCTD Safety |
| Auditors/ Inspectors | Daren GilbertStephen ArtusNoel TakaharaMike BorerMichael Lange (FRA Observer) | Persons Contacted | Don FilippiMike WygantSusan LuceroBryant AbelAdam Renteria |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **System Safety Program Plan: Implementation Activities and Responsibilities**Interview NCTD Safety Department and review appropriate records to:1. Verify each manager, department, and contractor is charged with responsibility and accountability for SSPP implementation, enforcement, and effectiveness.
2. Identify any challenges each manager, department, and contractor has in performing tasks relating to the SSPP or general safety.
3. Verify management accountability for the performance of safety-related activities, and, if serious or potentially serious deficiencies are found, expand the review to include additional and/or related activities.
 |
| Findings and Recommendations |
| Activities:1. NCTD management described an organizational oversight structure in which NCTD divisions provide oversight over contractors, and NCTD safety provides oversight over NCTD divisions and its contractors as well. Additional oversight is provided by the Human Resources Department and the Internal Compliance Department (under the umbrella of the General Counsel). NCTD personnel informed the reviewers that their contractor Veolia/Transdev hired an internal auditor for Bombardier and that TASI also started an internal audit program for their operations. These audits are done in addition to the regular Safety division audits. NCTD did not require HTSI to initiate an internal audit program since concerns were not present. NCTD personnel discussed their utilization of the IndustrySafe software application to coordinate and track activity related to accident CAPs and other records. Contractors have access and are encouraged to utilize IndustrySafe as well. NCTD personnel and Contractors have access to update records. Deletion of info from the IndustrySafe records is generally administered by Safety.
2. NCTD personnel discussed near miss issues at Rancheros Drive due to geometry / track issues. NCTD stated that the issues at this crossing are somewhat mitigated due to the proximity of Nordahl station that requires LRVs to operate at reduced speed due to station stops. NCTD stated requesting Law enforcement action at the crossing and providing specific training/warning for their operators to be on alert. NCTD discussed near miss issues on College Blvd when construction work was being done (road-widening). NCTD personnel informed the reviewers that they have initiated a Bulletin process to dispense information. NCTD pointed out that they are one of the only agencies in CA to define specific reportable hazards in their SSPP.
3. See above.

Findings:None.Comments:None.Recommendations:None |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 6 | Element | Hazard Management Process |
| Date of Audit | August 18, 201514:30-16:00 | Department(s) | Safety DepartmentOperations Department |
| Auditors/ Inspectors | Claudia LamDaniel Kwok | Persons Contacted | NCTD Safety, NCTD contractors |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Hazard Management Process**Interview NCTD representatives and review records from the past 3-years to determine whether:1. NCTD is identifying hazards according to the SSPP. Sources may include, but are not limited to:
* Daily tasks and routine activities
* Inspections and observations
* Internal audits and records reviews
* External audits
* Design reviews where representatives of Safety, Transit Enforcement, and Operations
* divisions participate
* Hazard analyses and special reports prepared by consultants, NCTD personnel, contractors,
* and suppliers
* Hazards that develop as a result of accidents /incidents
* Information from other transit systems
* Rules Compliance Program, including results from efficiency testing;
* Results from CPUC Triennial Reviews;
1. The Safety Department maintains a mechanism to capture and track identified hazards through analysis and resolution.
2. The Chief Safety Officer/Chief Operations Officer is reviewing operational hazards to assess severity, and reporting unacceptable hazards to CPUC as specified by the SSPP.
3. NCTD has a specified process for reporting hazard resolution activities to CPUC as required by General Order 164-D, Sections 6e and 6f.
4. Identified hazards are being evaluated according to the methods established in the SSPP.
5. Corrective actions address hazards and identify the department responsible for implementation, and a schedule for completion.
6. The Safety Department follows up on outstanding corrective actions to mitigate or resolve hazards.
 |
| Findings and Recommendations |
| Activities:Staff interviewed NCTD’s Safety Department representative, and reviewed relevant Hazard Management Process documentation, and determine the following: 1. NCTD is identifying hazards through the sources described in the SSPP. Five contractors all work together under NCTD. It depends on the hazard; they all use different forms to report. All hazards will be entered into IndustrySafe.
2. Every Wednesday, there is a weekly operation meeting for the five contractors to meet and discuss the hazards, safety, productivity, and topics.
3. In general, lower level hazards will be addressed and taken care of immediately. Only those that need more analysis and attention, such as high priority hazards, will be entered into IndustrySafe.
4. NCTD utilizes IndustrySafe to capture and track identified hazards. In addition, Monthly registry meeting are held to discuss the identified hazards and resolution.
5. Staff followed up with a recommendation issued during 2012 Triennial review for Hazard Management Process and it showed that NCTD has defined minimum thresholds for the notification and reporting of hazard(s) to the CPUC in its SSPP.
6. NCTD does not use Mil Std-882D to evaluate identified hazards; however, NCTD utilizes a similar matrix with three level approach: short-term, mid-term, and long-term. NCTD is in the progress of revising its SSPP to reflect current process. Corrective Action Plans (CAP) are developed as necessary to address identified hazards with the responsible personnel for implementation and schedule for completion.
7. See Activities #4.
8. Safety department is the QA to follow up on the outstanding CAPs. Every month, Safety personnel run the reports to follow up on the outstanding CAPs.
9. See Activities #7.

Findings:None.Comments:None.Recommendations:None.  |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 6 | Element | Hazard Management Process |
| Date of Audit | August 18, 201514:30-16:00 | Department(s) | Safety DepartmentOperations Department |
| Auditors/ Inspectors | Claudia LamDaniel Kwok | Persons Contacted | NCTD Safety, NCTD contractors |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Hazard Management Process**Interview NCTD representatives and review records from the past 3-years to determine whether:1. NCTD is identifying hazards according to the SSPP. Sources may include, but are not limited to:
* Daily tasks and routine activities
* Inspections and observations
* Internal audits and records reviews
* External audits
* Design reviews where representatives of Safety, Transit Enforcement, and Operations
* divisions participate
* Hazard analyses and special reports prepared by consultants, NCTD personnel, contractors,
* and suppliers
* Hazards that develop as a result of accidents /incidents
* Information from other transit systems
* Rules Compliance Program, including results from efficiency testing;
* Results from CPUC Triennial Reviews;
1. The Safety Department maintains a mechanism to capture and track identified hazards through analysis and resolution.
2. The Chief Safety Officer/Chief Operations Officer is reviewing operational hazards to assess severity, and reporting unacceptable hazards to CPUC as specified by the SSPP.
3. NCTD has a specified process for reporting hazard resolution activities to CPUC as required by General Order 164-D, Sections 6e and 6f.
4. Identified hazards are being evaluated according to the methods established in the SSPP.
5. Corrective actions address hazards and identify the department responsible for implementation, and a schedule for completion.
6. The Safety Department follows up on outstanding corrective actions to mitigate or resolve hazards.
 |
| Findings and Recommendations |
| Activities:Staff interviewed NCTD’s Safety Department representative, and reviewed relevant Hazard Management Process documentation, and determine the following: 1. NCTD is identifying hazards through the sources described in the SSPP. Five contractors all work together under NCTD. It depends on the hazard; they all use different forms to report. All hazards will be entered into IndustrySafe.
2. Every Wednesday, there is a weekly operation meeting for the five contractors to meet and discuss the hazards, safety, productivity, and topics.
3. In general, lower level hazards will be addressed and taken care of immediately. Only those that need more analysis and attention, such as high priority hazards, will be entered into IndustrySafe.
4. NCTD utilizes IndustrySafe to capture and track identified hazards. In addition, Monthly registry meeting are held to discuss the identified hazards and resolution.
5. Staff followed up with a recommendation issued during 2012 Triennial review for Hazard Management Process and it showed that NCTD has defined minimum thresholds for the notification and reporting of hazard(s) to the CPUC in its SSPP.
6. NCTD does not use Mil Std-882D to evaluate identified hazards; however, NCTD utilizes a similar matrix with three level approach: short-term, mid-term, and long-term. NCTD is in the progress of revising its SSPP to reflect current process. Corrective Action Plans (CAP) are developed as necessary to address identified hazards with the responsible personnelfor implementation and schedule for completion.
7. See Activities #4.
8. Safety department is the QA to follow up on the outstanding CAPs. Every month, Safety personnelruns the reports to follow up on the outstanding CAPs.
9. See Activities #7.

Findings:None.Comments:None.Recommendations:None.  |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 7 | Element | System Modification |
| Date of Audit | August 19, 201510:30-13:00 | Department(s) | Operations DepartmentSafety DepartmentEngineering Department |
| Auditors/ Inspectors | Daren GilbertStephen ArtusNoel TakaharaMike BorerMichael Lange (FRA Observer) | Persons Contacted | Bryant Abel – NCTDJennifer Ryan – NCTDTracey Foster – NCTDDon Filippi – NCTD |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **System Modification**Interview NCTD representatives and review appropriate records to determine whether:1. The SSPP and referenced or supporting procedures ensure a process exists for addressing safety issues and concerns in system modifications.
2. The Safety Department is involved in assessing/ensuring safety concerns are addressed in system modifications by identifying their specific activities in the process such as documentation participation in testing and inspections and observations performed at work sites.
3. Review three system modification projects implemented and determine if
4. The System Modification followed SSPP requirements and included an evaluation of potential hazards to the system and no unauthorized modifications were implemented.
5. The hazards were addressed and included an evaluation of potential hazards arising from the proposed modification. (i.e., emails, meeting minutes, sign-offs, inspection checklists, etc.).
6. Verify any system modification changes are shown in final as-built drawings for the facility, vehicle and/or equipment specifications.
 |
| Findings and Recommendations |
| Activities:1. NCTD SSPP section 7 outlines the general review process for system modification review and approval. NCTD Safety notes that they review all projects in design and also work plans/permit submittals prior to construction. NCTD safety provided the NCTD Real Property access procedure (Document DEV-4004) and an example of a Work Plan. Document DEV-4004 specifies procedures for projects and the process to obtain permits for access to the NCTD ROW. Requests for ROW access require a Property Access Request Submittal Form and a Work Plan. The example Work Plan provided (for the Rancho Del Oro Detention Basin Flood Control Improvement Project) describes project scope, purpose, means and methods, equipment, schedule, traffic control, hazards, etc. The Real Estate Department is responsible to process access requests with input from a Review Committee comprised of several NCTD departments including Safety.
2. NCTD Safety informed that they perform monthly safety inspections on job-sites and document the inspections in IndustrySafe. Safety notes that the System Modification Review and approval process (Work plans / Engineering Project Review) is also documented in IndustrySafe.
3. NCTD Safety informed that before any project on NCTD property begins, the contractor must submit a Job Hazard Analysis (JHA). NCTD discussed their role in reviewing and evaluating all JHAs prior to construction and also during design review. NCTD provided examples of JHAs for the EMDT CP Rose universal Crossover project and the Bridge 243 Riprap Installation project.

Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 8 | Element | Safety and Security Certification |
| Date of Audit | August 19, 201510:30-13:00 | Department(s) | SANDAGEngineering DepartmentSafety Department |
| Auditors/ Inspectors | Daren GilbertStephen ArtusNoel TakaharaMike BorerMichael Lange (FRA Observer) | Persons Contacted | Jennifer Ryan - NCTDBruce Smith – SANDAGBryant Abel – NCTDTracey Foster – NCTDDon Filippi – NCTDDale Neuzil - SANDAG |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Safety and Security Certification**Interview the NCTD/SANDAG representative(s) involved in the Safety Certification Program (SCP) and review the records of all minor/major projects to determine whether:1. A formal SCP has been submitted by NCTD/SANDAG and approved by the Commission.
2. Each submitted SCP was consistent with General Order 164-D, the SSPP, and applicable reference documents.
3. There has been effective communication with CPUC staff throughout each phase of current and planned projects, including the Preliminary Engineering Design Phase.
4. All design and construction changes were properly documented and addressed in the Safety Certification process.
5. All identified hazards have been eliminated or controlled as required under the SCPs.
6. All certifiable elements for Safety Certified projects during the past three years were identified for the Safety Certification Verification Report and submitted to CPUC in a timely manner, according to the requirements of General Order 164-D.
7. Review documentation to determine if New Starts and major projects undertaken by NCTD/SANDAG:
8. Address safety certification management, including organizational authority, responsibilities, and the level of interaction with the Safety Department.
9. Identify the process used to verify and document conformance with safety and security requirements during design, construction, testing, and operational readiness.
10. Are overseen and approved by FTA and its Project Management Oversight Consultants (PMOCs).
11. Is the certification program being administered by the transit agency or a contractor?
12. Has a certification committee been created?
13. Has a certifiable items list been created?
14. Have all designs been reviewed, stamped and sealed by a licensed Professional Engineer?
15. Are design changes and conformance exceptions analyzed for safety impacts and documented?
16. Have employees been trained if necessary?
17. Has a testing program been developed and administered?
18. Is the Executive Director required to formally sign and certify the project complete and safe for operations?
 |
| Findings and Recommendations |
| Activities:Through interview the reviewers have confirmed that there are no NCTD/SANDAG Sprinter transit projects that have required CPUC involvement as part of the GO-164D Major Project Safety Certification Process. NCTD mentioned a minor project on the Las Posas Road/trail, and a brief discussion was made with regard to the platform gap filler replacement project in which delineators were installed on select platforms to guide patrons into the LRV doorway width in lieu of the retractable gap fillers which were prone to malfunctioning. Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 9 | Element | Safety Data Collection and Analysis |
| Date of Audit | August 19, 201509:00-11:00 | Department(s) | Safety DepartmentOperations Department (Operations, Wayside, LRV) |
| Auditors/ Inspectors | Claudia LamDaniel Kwok | Persons Contacted | Susan LuceroByll Shelton |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Safety Data Collection and Analysis**Interview the NCTD representative(s) responsible for safety data acquisition and analysis, and review the safety data acquisition and analysis program requirements to determine whether:1. The data collected includes, at minimum: information concerning NCTD accident and incidents, employee performance failures, equipment failures, procedural deficiencies, derailments and rules violations in NCTD’s Yard.
2. The safety data is supplied by, and collected from, all departments, including Operations, Risk Management, and Maintenance, as appropriate.
3. The safety data collected is analyzed and incorporated into NCTD’s Hazard Identification and Resolution Process as necessary.
4. The safety data and analyses are made available to NCTD departments for use in planning their safety-related activities.
5. Periodic reporting regarding the results of the safety data analysis is provided to the NCTD Senior Management as appropriate and how this is reported to the FTA’s National Transportation Database (NTD).
6. Verify that the quality and integrity of safety data sources identified in the SSPP are being used, and data analysis and distribution are being implemented as described in the SSPP.
 |
| Findings and Recommendations |
| Activities:Staff interviewed NCTD Safety Department representatives, reviewed documentation relevant to the Safety Data Collection and Analysis program prepared during the three years, and determined the following:1. IndustrySafe is the primary database to keep track of the data from all relevant sources; EXCEPT Procedural deficiencies (kept in Laserfiche records management system) and Employee failures for Coaster, TASI (kept in Raildocs).
2. Safety department participates in biweekly operation meetings, monthly risk registry meetings, monthly TASI Safety Committee, monthly Sprinter Safety meeting, and share the information and discuss safety related topics.
3. Safety department has designated staff to review ALL projects and perform hazard analysis. He provides hazard analysis potential issues, put them back as comments or rejected if it is not adequately safe. NCTD provides several reports as examples of how hazard analysis was performed.
4. Safety personnel prepare monthly usage report using IndustrySafe and statistics include data from inspections, compliance ratings, etc.. Safety personnel distribute the report to all the IndustrySafe users and contractors. In addition, other reports include quarterly reports and near miss monthly reports and these reports are helpful for everyone to make appropriate actions to reduce the trend based on the statistics of the reports. Security department has weekly meeting with Sheriff Deputy and make plans for the areas they will focus their efforts.
5. Risk management personnel gather information from all contractors and determines what to report to NTD safety and security 40 & 50 reporting – 40 is for major incidents and 50 is for minor incidents. Safety quarterly report is generated for senior management and provided to the board of directors.
6. Safety does the QA for safety data. About 98% of data is routed to IndustrySafe and safety is reviewing the incidents for accuracy of data. Prior to IndustrySafe, TransitSafe (older version) exists for many years but was not being used. In the last few years, NCTD started encouraging personnelto use IndustrySafe. System Safety and Compliance Officer do quality control on safety data.

Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 10 | Element | Accident/Incident Investigations |
| Date of Audit | August 24 201509:00-11:00 | Department(s) | Operations DepartmentSafety Department |
| Auditors/ Inspectors | Howard HuieDaniel Kwok | Persons Contacted |  Don FilippiJason DixonSusan LuceroLoretta RainsByll Shelton |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 172
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. Sprinter Accident Investigation Plan (AIP) dated December 2011
 |
| Element/Characteristics and Method of Verification |
| **Accident/Incident Investigations**Interview the NCTD representative(s) responsible, and randomly select at least four CPUC-reportable accidents and/or incidents involving an injury or fatality to determine whether:1. All accidents and incidents were reported to CPUC according to General Order 164-D requirements.
2. All accidents and incidents were reported within two hours of occurrence, as required by General Order 164-D, Sections 7.1 and 7.2.
3. All immediately reportable accident or incident notifications to CPUC contained all the information required by General Order 164-D, Section 7.3.
4. All accidents and incidents were investigated in compliance with the requirements of General Order 164-D, Section 8, and the AIP.
5. Video recordings from inward-facing in-cab cameras are reviewed under the required conditions listed in General Order 172, Section 4.3.
6. Verify if FRA (on joint corridor), National Transportation Safety Board, and National Transportation Database notifications are made as applicable depending on the incident reporting threshold.
7. A final report was submitted for each accident or incident according to the requirements in General Order 164-D.
8. Each final report includes identification of:
	1. All evidence processed during the investigation;
	2. Findings of the most probable cause(s);
	3. Findings of contributory cause(s);
	4. Corrective Action Plans to address the identified causes with the goal of minimizing the probability of recurrence;
	5. A schedule for implementing the CAPs, including completion date or plan for monitoring progress on an on-going basis.
 |
| Findings and Recommendations |
| Activities:1. NCTD’s State Safety Oversight Representative, CPUC’s designated Staff, is on NCTD’s Call List for all operational notifications for Sprinter, whether the incident is reportable or not. NCTD’s Dispatch Center makes notifications to the regulatory agencies, Transdev will make follow up calls. Sprinter’s OCC Service Disruption report lists all agencies notified. All incidents, from the initial notification, are kept and tracked in IndustrySafe with a single tracking number. All documentation such as police reports, coroner’s reports, etc., is located in IndustrySafe with the exception of the video. The video is referenced by a tracking number in IndustrySafe to unique disk/DVD number, which is kept by the Safety Department.
2. All Sprinter accidents in the last three years were reported within the 2 hour window as CPUC staff was put on the OCC notification list, which are sent directly from NCTD’s OCC upon receiving the information from the field. NCTD’s OCC notifications are in the form of emails and texts.
3. Staff reviewed all Sprinter initial notifications from January 1, 2013 to August 14, 2015, and found that six of the seven notifications met CPUC’s reporting criteria stated in GO 164-D, Section 7.3. One of the seven notifications was missing the entry for the emergency response agency that responded to the incident scene. Refer to NCTD Memo of August 4, 2014, of requirements of accident investigation reporting. See OCC Service Disruption report for notification items. Dispatch goes through checklist of OCC Service Disruption report as to what is sent out in a notification.
4. Incidents on October 4, 2013, February 20, July 28, and August 11, 2014, and February 5 and August 14, 2015, had the necessary documentation as specified in GO 164-D, Section 8 and are consistent with Sprinter’s Accident Investigation procedure.
5. NCTD Sprinter incident dated February 4, 2015, shows that the in-cab camera, forward facing camera, and event recorder was reviewed by NCTD Safety and CPUC Staff. Prior NCTD Sprinter incidents were not available for in-cab viewing as Sprinter was not GO 172 compliant yet. Staff is invited to review all incident video with NCTD’s Safety Personnel.
6. Staff reviewed NCTD’s Sprinter incident of Service Disruption Reports from the OCC, for 2013 – 2015, to show which agencies were notified. There were no Sprinter incident notifications to NTSB as none of the incidents met the threshold. NTD requires reporting of minor and major incidents and therefore all incidents were reported to the NTD. NCTD’s Insurance and Risk Management Specialist is responsible for reporting to NTD. As a checks and balances process the Safety Department goes through IndustrySafe to double check what’s been reported and what hasn’t. The Safety Department then updates the notification as needed. The Insurance and Risk Management Specialist will notify Safety when IndustrySafe has been reconciled. Safety keeps a NTD tracking spreadsheet, which is used to reconcile Sprinter incidents with Insurance and Risk Management.
7. Sprinter incidents from October 2013 to August 2015 all have final incident reports submitted by NCTD in accordance with GO 164-D, Section 8. NCTD’s Safety Department sent a memo dated August 4, 2014, which updates NCTD’s AIP as well as final reporting requirements.
8. See answer to question 7.

Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 11 | Element | Emergency Management Program |
| Date of Audit | August 24, 201513:00-15:00 | Department(s) | Transit Enforcement DepartmentSafety Department |
| Auditors/ Inspectors | Howard HuieDaniel KwokRupa ShitoleMichael Warren | Persons Contacted | Jaime BecerraDon FilippiJason DixonSusan LuceroRobert KeetchTim Cutler |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
3. NCTD System Security and Emergency Preparedness Program Plan (SSEPP) dated February 2014
 |
| Element/Characteristics and Method of Verification |
| **Emergency Management Program**Conduct the necessary interviews regarding NCTD’s emergency planning, training, and drill/exercise program and review appropriate records prepared during the last three years to: 1. Solicit an overview of the process for NCTD’s emergency planning, training, and drill/exercise program and specific examples of coordination with emergency response agencies on emergency planning and drill/exercises
2. Determine the biggest challenges NCTD Safety/Transit Enforcement Department face in coordinating or supporting NCTD’s emergency planning process.
3. Verify the process through which emergency responders and other outside agencies are involved in the NCTD emergency planning
4. Verify that a drill/exercise schedule has been created and followed. Determine when the last drill/exercise was performed, if an after action report developed, and if changes to NCTD’s Emergency Familiarization Response and/or procedures were necessary. If changes were necessary, how are these changes communicated to NCTD personnel?
5. Determine if NCTD has held periodic Fire Life Safety meetings, emergency response agency familiarization activities have occurred as scheduled and corrective actions have been implemented.
6. NCTD emergency response training:
	1. Review training programs to verify they contain training curriculums for emergency response procedures and activities appropriate for each job classification.
	2. Review training programs to verify frequency of employee emergency response training.
	3. Randomly select two (2) employees from each safety sensitive job classifications and review their emergency response training records to verify training is documented:
7. Train Operators
8. Operations Supervisors
9. Controllers
 |
| Findings and Recommendations |
| Activities:1. NCTD’s SSPP, SSEPP, and Emergency Response Plan are currently being updated. Currently NCTD has two Emergency Response Plan, one for Sprinter and one for the Coaster. There is no ERP for Breeze but NCTD will be incorporating the three into one ERP and having separate appendixes or attachments that will specifically what each line/Operations needs to do in the event of an emergency. NCTD’s new SOP outlines the contents of the revised ERP. The new SOP requires the revised ERP define the types of drills, provide vital contact personnel and their respective information, emergency procedures, etc. The revised ERP will not be a Security Sensitive Information (SSI) document; therefore everyone will have access to this information. The new ERP procedure will require NCTD’s Security to outreach to first responders, such as fire and local law enforcement, on a daily basis. NCTD does not have any documentation to show that there is contact with outside agencies. This was a finding to be corrected in NCTD’s annual ISA.
2. NCTD is lacking personnel to help with planning to create the substructure to support the training. NCTD does not have a person who is solely assigned to emergency planning duties. NCTD has a person that is assigned to emergency planning amongst other duties and with limited resources dedicated to emergency planning and exercises. NCTD is at a point where they’re establishing internal SOPs so the next person who takes over as Emergency Planner/Coordinator can take the SOPs and coordinate the emergency plans and drills with outside agencies. Currently NCTD has relied heavily on the contractor’s SOPs and policies. Most of the contractor’s current SOP and policies are not written but word of mouth. Other problems NCTD faces are jurisdictional issues for first responders. NCTD invites all local emergency response agencies to participate and/or observe. However some first responders are not interested when the emergency plan or drill is not coordinated within their jurisdiction as they feel that it would not benefit their agency. This results in various agencies not attending Sprinter’s emergency drills though the same scenario can happen in their jurisdiction.
3. NCTD does not have any formal documentation at the current time. NCTD’s Transit Security Subcommittee is currently addressing this issue. First meeting was August 17, 2015. Items discussed at the meeting consisted of Planning for Event, Objectives/Goals of Exercise, Sprinter ERP, SSPP, First Transit ERP, Date Selection, Time Constraints, Location of Exercises, Scenario, Players – Internal, External, Roles/Responsibilities/Assignments, Outreach to External Agencies, Media Outreach, Logistics, Post-Event Evaluation and Critique, and Corrective Action Plan and ERP Plane Revisions/Updates.
4. NCTD annually alternates emergency drills between Coaster and Sprinter. The last Sprinter drill was performed March 27, 2014. Six corrective actions were identified as part of the After Action Report. Four of the six corrective actions have been closed from April 2014 to July 2014. The remaining two corrective action items to be closed is scheduled to be re-evaluated and closed by October 30, 2015. All Corrective Actions Plans (CAPs) which resulted in SOP updates were updated and sent to the relevant Sprinter personnel. All CAPs are tracked in IndustrySafe.
5. Safety and Security attends all of their contractor’s safety meetings and discusses all Sprinter related safety and security issues and concerns. If the issues cannot be resolved, it is elevated to NCTD’s Risk Roundtable. The Risk Roundtable is held monthly and is attended by NCTD’s CEO, General Council, Division Chiefs, the contractor’s General Managers and Employee Representatives. NCTD also has Quarterly Safety Meeting with CEO, General Council, General Mangers Contractors, and Security where a high level meeting for open dialog of safety concerns. NCTD’s Monthly Security meeting includes the following departs: Safety, Security, Code Enforcement Manager, Sheriff’s Patrol Station Captain, CEO and General Council. This meeting is to address security issues and concerns only. However, Trespassing is a safety and security issue that is brought up in both Safety and Security meetings. Corrective Actions which are brought up in the meetings are recorded in the meeting minutes and tracked in IndustrySafe. NCTD’s Internal Safety Audits also shows that Corrective Actions from the various NCTD and contractor meetings are tracked in IndustrySafe until completion.
6. NCTD relies on their contractors for training. Transdev’s Initial Training focuses on territory for Sprinter Controllers. Items covered in the Initial Training are listed below. The program consists of familiarization of the Sprinter operations and Emergency Procedures training. The classroom training is from 4 – 6 weeks. Controllers are taken on “Road Trips” with quick mile post locator which shows areas of concern of possible incident along the alignment, areas of concern where travel to incident may be a problem, and areas of concern with access problems.

Items covered in Initial Training related to Emergency Response * Dispatcher Training Plan
* Emergency Procedures Manual
* Coaster/Sprinter 239 Emergency Response ppt.
* Territory Familiarization Test
* Sprinter ERP
* GCOR/SCOR-Train Dispatcher Manual
* Road Trips
* Quick MP locator Sprinter

After the Initial Training on Territory, the Dispatcher goes though the Qualification Period, which takes 2 - 4 months. Controllers are subjected to Annual Training. The items listed in the Annual Training are listed below. In addition to the Annual Training, Dispatchers are taken on a “Road Trip” annually to familiarize themselves with the Sprinter alignment and system. Testing and observation program for managers require two (2) Emergency Events test per month where different scenarios are given and controllers must react to answer questions such as where the incident occurred, what was the nature of the emergency, milepost, etc. Controllers are subjected to weekly quizzes as well called “Quiz of the Week.” Annual and ongoing training: * Annual GCOR/SCOR, TDM, Emergency Preparedness refresher training and exam.
* 505 Emergency Event Tests
* Roadtrips
* Quiz of the week.

Herzog provided three years of training records to Staff from two randomly selected Train Operators, Operations Supervisors, and Controllers to review for compliance against Herzog’s training procedures and requirements. Staff did not find any issues of noncompliance.Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 12 | Element | Internal Safety and Security Audits/Reviews |
| Date of Audit | August 24, 201515:00-16:00 | Department(s) | Safety DepartmentTransit Enforcement Department |
| Auditors/ Inspectors | Rupa ShitoleHoward Huie  | Persons Contacted | Don Filippi – Chief of Safety Jason Dixson – Rail System Safety Specialist Susan Lucero – System Safety & Compliance Inspector Bryant Abel – Project Safety Review Officer Robert Threatt – Internal Auditing and Reporting  |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Internal Safety Audits (ISAs)/Reviews**Interview the NCTD representatives involved in ISAs, and review appropriate records to:1. Determine if a three-year internal audit schedule was developed and submitted to CPUC.
2. Verify that all 21-SSPP elements were evaluated within a three year period.
3. Verify CPUC was notified 30 days in advance of the scheduled audit via a letter and or an email and a draft checklist was submitted along with it.
4. Verify each audit lists the involved appropriate NCTD departments/contractors, the safety-related activities addressed, and the reference criteria for the audit.
5. Determine whether the ISAs adequately address interdepartmental and interagency communication issues, and whether or not NCTD has a process for addressing departments’/contractors’ non-responsiveness and failures to implement audit recommendations.
6. Determine how expertise for auditing specific functions is evaluated, and how personnel are assigned per the SSPP to ensure ISA quality. An example of a function is signal inspection.
7. Verify audits have been properly documented, included references for documents, activities reviewed, criteria for evaluation, and notes to support findings and recommendations.
8. Verify Annual Reports are accompanied by letters from the Executive Director stating NCTD’s compliance status with its SSPP and Corrective Action Plans for non-compliant elements
9. Verify Corrective Actions from the internal safety audit process were scheduled, tracked, and implemented.
 |
| Findings and Recommendations |
| Activities: Staff interviewed the NCTD representative(s) responsible for the Internal Safety Audits and noted the following during the review:1. NCTD’s current three year cycle (2015-2017) schedule submitted to CPUC Staff with the February 2015 Annual Report was reviewed by Staff. The previous three year cycle (2012-2014) schedule was also reviewed. The CY 2013 and CY 2014 schedule was also submitted to CPUC Staff via NCTD letter dated July 25, 2013.
2. NCTD conducts internal safety audits for all of their modes of transportation (bus, Coaster, and Sprinter). Staff reviewed the three year cycle (2012-2014) and found not all 21 SSPP elements were audited by NCTD as required by CPUC GO 164-D requirements. NCTD did not audit the following SSPP elements during 2012 to 2014 (3 year cycle):
* First 5 elements of the SSPP (#1, #2, #3, #4, and #5)
* Safety and Security Certification (#8)
* Internal Safety Audits/Reviews (#12)
* Procurement Process (#21).
1. NCTD provided 30 days advance notice to CPUC Staff via a letter sent through email however the draft checklist(s) was not submitted in advance as per GO 164-D requirements.
2. Staff reviewed the Internal Safety Audit Annual Reports dated 2012-2014) and found all completed checklists contained appropriate NCTD departments/contractors, the safety-related activities addressed, and the reference criteria for the audit.
3. All corrective action plans (CAPs) were entered into IndustrySafe database which is NCTD’s database for tracking the status of CAPs to closure. Staff selected random CAPs and verified that audit recommendations were closed out in a timely manner.
4. Safety Department is responsible for preparing the Internal Safety Audit checklists. Individuals outside of the Safety Department with a specific expertise are required to attend the ISA. The Safety Department is responsible for writing the checklists findings and issuing recommendations.
5. The Internal Safety Audit Annual Reports dated 2012-2014 included completed checklists as per the schedule provided. The checklists consisted of reference criteria, elements and method of verification, activities, findings, and recommendations.
6. All 2012-2014 Annual Reports were accompanied by the letters from the Executive Director stating NCTD’s compliance status with its SSPP and Corrective Action Plans for non-compliant elements.
7. Reviewed CAPs log for 2014 open items for Internals Safety Audits. Refer to bullet number 5.

Findings:1. During the three year cycle 2012-2014, Staff noted that not all 21 elements of the SSPP were being audited by NCTD as required by CPUC GO 164-D requirements. NCTD did not audit the following elements during 2012 to 2014:
* First 5 elements of their SSPP (#1, #2, #3, #4, and #5)
* Safety and Security Certification (#8)
* Internal Safety Audits/Reviews (#12)
* Procurement Process (#21).
1. NCTD did not submit draft checklist(s) in advance prior to the scheduled audit(s).

Comments:1. NCTD was in shut down mode during the period of March 2013 to June 2013 and therefore no documents for this time frame were available.

Recommendations:1. NCTD should audit all 21 SSPP elements as required by GO 164-D.
2. NCTD should follow GO 164-D Section 5.4 requirements and submit draft checklist(s) along with a 30 days advance notice to the CPUC.
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 13-A | Element | Rules Compliance:Observation and Enforcement |
| Date of Audit | August 19, 20150900 - 1030 | Department(s) | Operations Department |
| Auditors/ Inspectors | Debbie Dziadzio | Persons Contacted | Loretta Rains, Craig Bowerman, James Unger, Jason Dixon |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 172
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. Sprinter Safety Handbook, Revised: June 2014
5. Sprinter Code of Operating Rules (SCOR) dated May 2010
6. Escondido Subdivision Timetable and Special Instructions #6 dated June 2014
7. Transdev Operations Testing Requirements dated January 2015
 |
| Element/Characteristics and Method of Verification |
| **Rules Compliance: Observation and Enforcement**Interview the appropriate NCTD representatives and review appropriate records to:1. Verify that NCTD/Contractor performs formal observations of Controllers and Train Operators as specified the SSPP and/or supporting procedures. Accompany a Supervisor during compliance checks, assess how compliance checks are conducted, and ensure that final report matches field findings
2. Verify that NCTD/Contractor performs observation of Maintenance Employees as specified in the SSPP and/or supporting procedures. Interview operations and maintenance supervisory staff to determine their familiarity with rules and procedures and how they monitor employee compliance with rules and procedures.
3. Review documentation to verify Supervisors are citing operating and maintenance personnel for rule violations. Conduct a random sample inspection of transit operators to determine if they are carrying their rulebook, if they have the proper safety equipment in their cabs, and if their radios are functioning
4. Verify operations and maintenance employees are evaluated based on their performance during unannounced observations to assess their compliance with safety rules, procedures, and/or practices. Conduct random interviews of operators and mechanics to verify how often they receive training on rules and procedures and how the transit agency monitors their compliance with rules and procedures
5. Determine whether any accidents/incidents were determined to have resulted from inadequate operations procedures and verify appropriate Corrective Action Plans (CAPs) were implemented in response.

a. If accidents/incidents required a CAP, verify what steps were implemented (i.e., employee retraining, suspension, dismissal, etc.).1. Determine how NCTD performs efficiency testing of operating and maintenance personnel and verify CAPs are implemented when appropriate
2. Verify the NCTD Safety Department receives reports from Operations Department/Contractor regarding rules compliance assessment and testing. Are hazards identified from the rules compliance process, reported to Safety, and tracked through the Hazard Management Process?
3. Select standard operating procedures (4 or 5) and ride the NCTD system to verify rules are followed (such as horn signaling, any speed restrictions, end of line vehicle inspections, etc.).
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| Findings and Recommendations |
| Activities:1. Staff interviewed Loretta Rains, Manager Safety & Environmental and Craig Bowerman, Senior Transportation Manager, Transdev employees, the contractor that represents all Train Operators and Herzog employees, the contractor that represents dispatchers. Staff learned that monthly, the (3) Managers must each conduct 27 tests and observations which will include at least one weekend. Also, at least one test per month per manager should be conducted between 2000 – 0500. All eligible Train Operators must have at least one test. Quarterly testing requirements include each Train Operator will have a speed test (by radar), and PED test. Semi-annually, all Train Operators must have a check ride. Also during these tests, the Train Operators will be tested on restricted speed, STOP (banner) test, event recorder evaluation, radio procedures, proper job briefing and PED tests. Staff reviewed Transdev Operations Testing Reference Guide (eff date 5/3/15). All tests and observations are entered into the test system. Staff reviewed a spreadsheet from Jan’15 – Jul’15 listing all Train Operators, various tests and time-frame to confirm Transdev Operations Testing Requirements. There were 6 test failures with 1 major rule violation. Staff interviewed James Unger, NCTD Rail Operations Officer who advised part of his inspection responsibilities is to inspect Transdev testing requirements. Staff accompanied Transdev and NCTD Officer(s) for speed check testing. Staff confirmed that the final report matched the actual compliance checks and findings.
2. Staff reviewed spreadsheet (mentioned above) and Rail Efficiency Test Report – Employees Test Detail from 1/1/14 – 12/31/14 that details all testing performed during that time period and the results of each test. Staff then reviewed individual Train Operators’ files to confirm findings to be in correspondence to Test Report.

Staff rode NCTD system for approximately 2 weeks and interviewed 6 different Train Operators. All were found to have in their possession: Safety Rules, Sprinter Code of Operating Rules (SCOR), Brake System rule books, current Time Table/Special Instructions (TTSI), a current qualification card, a working watch, working radio and working flashlight. When asked where their personal cell phones were, all Train Operators advised their phones were left behind, locked up in their vehicles.1. Staff reviewed all testing procedures and reports to verify Operations personnel are evaluated on their performance during unannounced observations.

Staff interviewed 12 personnel (Train Operators and Dispatchers) who were all knowledgeable of the requirements for compliance checks and video monitoring by the agency. All were knowledgeable regarding recertification requirements and all other training necessary for their continued safe operations.1. Staff reviewed 2 years of accidents/incidents. It was determined that no accidents/incidents occurred due to inadequate operational procedures.
2. See Activities #1, #3
3. Staff interviewed Jason Dixon and Don Filippi, NCTD Safety Department, and was advised that all testing results are input into a data base system called IndustrySafe where all results are tracked for trends and hazards are easily identified.
4. Staff rode the system for approximately 2 weeks observing for horn signaling (approaching and thru at-grade crossings, before departing stations), speed restrictions, station announcements, cab spotting at stations.

Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 13-B | Element | Rules Compliance:Operations Safety Compliance |
| Date of Audit | August 19, 20151030 - 1630 | Department(s) | Operations DepartmentMOW |
| Auditors/ Inspectors | Debbie DziadzioJoey Bigornia | Persons Contacted | Loretta Rains, TransDev ManagerJames Unger, NCTD Rail Ops OfficerJason Dixon, NCTD Safety ManagerGil Rodriques, KablerDanny Bailey, TASY MOW MngrCJ Gagner, HTSI Mngr – SignalsMatt Ahumad – TASY TrackmanTim Moorehead, NCTD ROW Officer |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 172
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. Sprinter Safety Handbook, Revised: June 2014
5. Sprinter Code of Operating Rules (SCOR) dated May 2010
6. Escondido Subdivision Timetable and Special Instructions #6 dated June 2014
7. NCTD Roadway Worker Protection (RWP) Safety Manual dated May 2014
 |
| Element/Characteristics and Method of Verification |
| **Rules Compliance: Operations Safety Compliance**Interview NCTD representatives responsible for Operations, perform random observations and operations inspections, and review appropriate records to determine whether:1. Maintenance Workers:
	1. Know and understand applicable wayside safety rules;
	2. Comply with the PED Rules when performing any duties on or near railways;
	3. Know and understand the rules and procedures for mainline operations.
2. Train Operators:
	1. Are in compliance with the applicable rules and procedures ;
	2. Comply with PED Rules while inside operator cabins;
	3. Are properly trained and knowledgeable in handling accident/incidents and emergency response situations, and coordinating with Operations Control Center during an incident
3. Controllers:
	1. Are properly preparing and maintaining records, reports, and logs;
	2. Perform duties in accordance with standard operating procedures, rule books, and bulletins;
	3. Are trained and knowledgeable in dealing with accidents/incidents and emergency response situations, and coordinating with NCTD personnel and other agencies during the same.

Randomly select 10% Wayside personnel, 10% Controllers, 10% train operators, and 10% Operation Supervisors, and perform ride-along or on-site inspections to verify their compliance with applicable rules, that they have the proper safety equipment, radios are functioning, and they comply with the personal electronic device policy. |
| Findings and Recommendations |
| Activities: Staff interviewed NCTD, Transdev and Herzog personnel and found that NCTD’s IndustrySafe database is used for tracking all Sprinter operations, maintenance, and wayside issues. Staff reviewed Rail Operations Center Morning Reports (ROCMR) – Trouble ticket uploaded for a signal issue (an issue recorded is also closed out on IndustrySafe by reference to a trouble ticket). Staff randomly picked June 25, July 16, July 31, 2015 ROCMR – the process was explained that a Unusual Occurrence Report (UOR) allows for rapid notification, Dispatchers do a ‘page out’ and then information is entered into IndustrySafe for tracking all issues. There is a daily 0730 Job Briefing conference call to discuss potential slow orders, quiet zones, etc., as a reminder to all roadway workers.* 1. Staff interviewed MOW Management personnel and learned that Sprinter employees and contractors are trained per 49 CFR 214 requirements (not GO 175). Annual certification class is 3 hours long and provided in both English and Spanish with an identification card and RWP sticker (must be visible on hardhat) issued upon completion of class (including a passing grade on the final test).
	2. Staff reviewed an Operations Testing (Quarterly) Checklist that included observation compliance for GCOR Rule 121 regarding PED. However, Staff was provided with copies of PED policies for HERZOG, TASI, Kabler, GCOR, SCOR, NCTD. A Herzog memorandum dated 2008 to Employees and Subcontractors identifies SCOR Rule #2.21 Electronic Devices, Zero Tolerance Policy. It states company phones are issued to all employees and usage must be 25 feet away from railroad tracks. Kabler Construction Employee Handbook dated November 2013, page 16: Computer, Cell Phone and Electronic Devices in Use Guidelines identify company phone usage is 4 feet away from railroad tracks. NCTD RWP Training Manual instructs to stand clear of the foul zone in order to utilize cell phones (it doesn’t identify where clear of the foul zone is).
	3. Staff approached two groups of Roadway workers and received a job briefing from both EIC’s. Staff reviewed the Job Briefing & Statement for On Track Safety form(s) and found it to be filled out correct and complete. Staff was advised that the Safety Rule of the Week was 6.5. When Staff asked both EIC’s for the definition of Safety Rule of the Week 6.5, neither knew the definition and had to refer to their rule book. Both occurrences happened on a Wednesday, the 4th day of their workweek.
1. 1. Refer to Checklist #13-A
	2. Refer to Checklist #22
	3. Staff reviewed the Safety Training Overview which instructs annual training regarding accident/incident, emergency response situations including the coordination with OCC during any incident.
	4. Staff reviewed Service Disruption Report (dated 3-5-15, 3-16-15), Amtrak Injury/Fatality (dated 5-9-15, 8-12-15), daily Unusual Occurrence Report, Page Out, IndustrySafe, Train Movement log.
	5. Staff reviewed compliance and efficiency test results performed on Train Dispatchers from Jan 2015 – July 31, 1015.
	6. Each Disruption Report identifies Notification Reports as follows: Station O (Oceanside), Maintenance of Way, Maintenance of Equipment, Maintenance of Signal, HTSI Director, Transdev Operations, Bus, Digital Communications, and Emergency Responders. The Close-Out section identifies when the incident is clear, bus/train released from scene, transport details, late train summary and a final close out page. A Summary Report provides details for location of the incident, emergency responders at scene, investigation agency, investigating deputy/officer, case number, and drug & alcohol test administered.

Findings:1. NCTD MOW contractor EIC’s did not know the safety rule of the week when giving job briefings.
2. NCTD and its contractors have different definitions of where the foul zone is or when a worker is clear of the foul zone.

Comments:None.Recommendations:1. The contractor EIC’s should know the definition of the Safety Rule of the Week on their Job Briefing forms.
2. Clear, concise definitions for foul zones and being in the clear of foul zones need to be instituted. One definition for NCTD and all of its contractors.
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 13-C | Element | Rules Compliance:Operator, Controller, and MaintenancePersonnel Hours of Service |
| Date of Audit | August 18, 20151130 - 1300 | Department(s) | Operations Department (Operating, Dispatching, LRV, Wayside) |
| Auditors/ Inspectors | Debbie Dziadzio | Persons Contacted | Damon Blythe, NCTD Deputy Chief Rail Ops, James Unger, NCTD Rail Ops Officer, Tim Cutler, TransDev Director Train Dispatchers |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. General Order 143-B, Rule 12.04 Hours of Service-Safety Sensitive Employees
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
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| Element/Characteristics and Method of Verification |
| **Rules Compliance: Operator, Controller, and Maintenance Personnel Hours of Service**Select at least 10% safety-sensitive employees at random from each of the following classifications:* Dispatcher
* Train Operator
* Track Inspector/Maintainer
* Signals Inspector/Maintainer
* LRV Maintainer
* Flag person/Look-out
* Supervisors

Inspect the employees’ time cards for a three-month period during the past 18 months to determine whether:1. Shifts were in compliance with the requirements for safety-sensitive employees not remain on duty for more than 12 consecutive hours, or for more than 12 hours in any 16 hour period.
2. Each initial on-duty status was preceded by eight consecutive hours of off-duty status.
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| Findings and Recommendations |
| Activities:Operations:1. Staff reviewed HTSI (NCTD) Train Dispatcher Manual 2014-2015 (rev 6) Hours of Service Rule 1.17, Sprinter Code of Operating Rules (SCOR) Hours of Service Rule 1.17, Sprinter Electronic Timekeeping procedures, and NCTD Detail of Service matrix for each employee.

Staff reviewed timekeeping records for 19 Train Operators for the month of April, 2014 and December 24, 2014 thru January 2, 2015.Staff reviewed timekeeping records for 8 Dispatchers for the month of April, 2014 and December 24, 2014 thru January 2, 2015.1. Staff confirmed all Train Operators and Dispatchers had at least 8 consecutive hours of off-duty status prior to on-duty status.

Track:Staff randomly selected three track maintainers and two flaggers and inspected time cards for a three-month period during the past 18 months to determine if shifts were in compliance with the requirements for employees not to remain on duty for more than 12 consecutive hours, or more than 12 hours in any 16 hour period.Signal:Staff reviewed hours of service records for signal employees on the Escondido Subdivision for a three-month period during the past 18 months to determine if shifts were in compliance with requirements.LRV:Staff interviewed manager of LRV maintenance and NCTD rail system safety to determine the following:Staff reviewed timesheets for Bombardier maintenance employees at random which included safety sensitive employees on each shift. Staff ensured employees were in compliance with the requirements of General Order 143-B, Rule 12.04 hours of service. Timesheets reviewed by staff provided proper documentation, ensuring maintenance employees receive at least eight consecutive hours of off duty status between each day worked. Each day worked did not exceed 12 consecutive hours.Timesheets reviewed by staff showed proper recording of start time, stop time, lunch break, total hours worked and overtime. Sick or vacation time was also properly recorded. No violations or inaccuracies were reported by CPUC staff.Findings:None.Comments:Bombardier LRV management/supervisor personnelensure that each employee is responsible for demonstrating the ability to properly record hours of service worked and/or time off such as rest day, sick or vacation. Timesheets are readily accessible to CPUC staff upon request.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 13-D | Element | Rules Compliance:Contractor Safety Program |
| Date of Audit | August 19, 201514:30-16:00 | Department(s) | Operations DepartmentSafety Department  |
| Auditors/ Inspectors | Daniel Kwok | Persons Contacted |  Ziad Malhas Tracey Foster Bryant AbelAdan Renteria Eric Contreras Ernesto BulliKaren TucholskiRose Jean-Paul |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
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| Element/Characteristics and Method of Verification |
| **Rules Compliance: Contractor Safety Program**Interview the NCTD representative responsible for the Contractor Safety Program and review documentation to determine whether:1. NCTD has a contractor safety program establishing responsibilities and requirements including:
	1. Training and certification for contractors and their employees.
	2. The rules, regulations, and procedures applicable to contractors and their employees.
2. NCTD’s procedures and practices clearly identify NCTD is ultimately in charge on its system, and that contractors and their employees must comply with all established safety rules and procedures.
3. NCTD standard operating procedures establish the range of activities for monitoring Contractors and their employees, and enforcing compliance with safety requirements through regular unscheduled and unannounced compliance checks, and scheduled periodic audits and inspections of construction sites to monitor compliance with its safety requirements.
4. The Safety Department, and SANDAG Engineering and interagency coordination resulted in construction plan reviews, site inspections performed, reviewed and approved contractor safety plans, and ensured contractors operate in compliance with NCTD Operating Rules and Procedures Manual.
5. NCTD’s monitoring and enforcement activities are properly recorded, distributed, and filed.
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| Findings and Recommendations |
| Activities:All NCTD Property:1. NCTD states all contractors and employees are trained in Roadway Worker Protection (RWP). Training for RWP is given by TASI and tracked through IndustrySafe. RWP is the basic training all persons accessing the Right-Of-Way (ROW) must go through. All persons who have completed and passed RWP training are given a hardhat sticker and a photo ID badge. NCTD provides flaggers for the contractors.If external contractors, such as those hired by a city, need to do work on NCTD ROW, they must submit a work plan and scope of work to NCTD for approval. If approved, the contractors must schedule and take the RWP training, and then issued a permit to work.This procedure is outlined in Administrative Policy and Procedure DEV – 4004 (8/14/2015). Staff noted the recent date of the document. NCTD’s Director of Real Estate states the procedure has been informally been in effect since 2012, and was formally documented in 2015. Staff reviewed three Engineering Project Reviews: #13438 (12/27/2013)  #29631 (11/20/2014) #41245 (7/17/2015)Staff noted that the review checklist looked over the basic requirements of DEV – 4004, and issued Right-of-Entry permits if all requirements are met.
2. NCTD states that Section 1.3 and 2.1 of their SSPP establishes that the SSPP applies to all SPRINTER systems and facilities, and all NCTD personnel and contractor personnel. NCTD states that their RWP establishes the Employee-in-Charge (EIC) as the on-site NCTD representative, and has absolute authority over the work area.
3. NCTD SSPP Section 13.5.2 states the Safety department performs field inspections and annual safety audit. The Safety department performs RWP inspections and Construction Site Safety Inspections. Staff reviewed two RWP Inspections: #42262 (8/31/2015) #11359 (10/22/2013)No discrepancies found.Staff reviewed three Construction Site Safety Inspections:  #39020 (6/5/2015) #25258 (8/28/2014) #13598 (12/31/2013)No discrepancies found.
4. NCTD states all departments are involved in reviewing and commenting during the design process for any projects to be built on or near NCTD property. NCTD states they are involved with SANDAG and various city governments during the design process. NCTD states RWP is given to everyone who is to work on NCTD property, and contractors would be trained prior to starting construction. There have been no projects along the SPRINTER line within the past 3 years.

Sprinter Operations Facility Access:Staff interviewed Bombardier Manager of LRV Maintenance, Transdev Manager and NCTD Rail System Safety to verify if contractor safety programs and procedures are being administered to all employees/contractors.Staff reviewed handbooks and documentation that is presented to all visitors, including employees/contractors. The documentation clearly identifies requirements and responsibilities of yard and shop safety which include the following;* General safety/Introduction
* Blue Flag Protection
* Emergency Evacuation Plan, Earthquake, Fire Alarms
* First Aid & Reporting Injuries
* Personal Protection Equipment (PPE)
* Job Safety Briefings
* Train Movement/Fouling Tracks
* Switches
* Cell Phones
* Hazmat/Spills
* Fall Protection

Staff reviewed safety acknowledgment forms, training matrix and test results that pertain to employee/contractor safety programs. Forms are properly reviewed and filed and made readily available for review by both management and employees. The rules, regulations and procedure that apply to employees/contractors are clearly identified through training programs. Maintenance supervisors follow up with efficiency tests that are performed monthly. The results of each test are then followed up by management to ensure compliance.NCTD Safety ensures compliance through periodic and random unannounced compliance audits. Interviews with NCTD safety specialists demonstrated the ability to properly monitor and enforce all contractors training methods and procedures, ensuring complete rules compliance.Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 13-E | Element | Rules Compliance:Operating Rules and Maintenance Procedures Manual and Special Instruction Revisions |
| Date of Audit | August 20, 20150900 - 1000 | Department(s) | System Safety DepartmentTransportation DepartmentLRV Maintenance Department Wayside Department  |
| Auditors/ Inspectors | Debbie Dziadzio | Persons Contacted | Don Filippi, NCTD Chief Safety OfficerJames Unger, NCTD Rail Ops OfficerLoretta Rains, Transdev Manager Safety & Environmental |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
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| Element/Characteristics and Method of Verification |
| **Rules Compliance:****Operating Rules and Maintenance Procedures Manual and Special Instruction Revisions**Interview NCTD representative responsible for operations rules and procedures, maintenance procedures, and review necessary documentation to determine whether:1. The Standard Operating Procedures, the Maintenance Procedures and all active Special Instructions are reviewed, revised systematically and distributed to the relevant personnel. Discuss the process used to review and update rules and procedures.
2. The results of each review of the Standard Operating Procedures, the Maintenance Procedures and Special Instructions are documented in a memorandum to file, providing a summary of the results and the appropriate manager’s determination whether revisions are needed.
3. All General Orders were approved by the Operations General Manager with concurrence of affected departments if applicable.
4. General Orders were issued to personnel in a timely manner.
5. An employee record of all General Orders issued, and received.
6. Active General Orders are posted in specified locations, and inactive General Orders are removed in a timely manner.
7. CPUC Staff received all new operating rules and General Orders during the past 12 months, and issuance was tracked.
8. Does NCTD Safety Department conduct assessments to evaluate safety-related impacts to rules changes and bulletins?
9. Interview NCTD Safety Department representatives to determine when rules and procedures were last reviewed (certain rules and procedures should be reviewed after accidents) and revised.
10. Conduct interviews with NCTD Safety Department representatives to discuss their role in ensuring that safety concerns are addressed in NCTD’s rules compliance program.
11. Does the Safety Department representative support any rules compliance activities?
12. Does the Safety Department representative receive reports from the NCTD’s operations and maintenance departments regarding the performance of rules checks, assessments, and testing?
13. Are hazards identified from the rules compliance process and reported to NCTD Safety Department and managed through the hazard management process?
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| Findings and Recommendations |
| Activities:Operations:1. Staff interviewed Transdev representative and learned that the Time Table/Special Instructions (TTSI) is a living document and is revised for a number of reasons, i.e. changes in GCOR/SCOR or speed restrictions. Any change in railroad operations will affect TTSI. During the rules committee meeting, changes to TTSI will be addressed and open for comment. NCTD Safety Department is included in this process. When change is implemented, a copy of the TTSI goes into all Train Operators mail slot located at both the SOF and Oceanside Crew Start locations, put up on the bulletin boards and clip boards at each location. NCTD Safety and Operations Departments receive soft copies.
2. Staff interviewed Transdev and NCTD personnel and could not find a paper trail where documentation included a memorandum to file, a summary of results and appropriate manager’s determination whether revisions are needed.
3. For Transdev, same procedure as Activities #1. Transdev utilizes a computer database, Laserfiche that enables everyone to have access (depending on security clearance). NCTD Safety and Operations is included in the review process.
4. Staff learned that new SOPs, TTSIs, etc. are issued to personnel via “Fit for Duty” face-to-face meets, where the new procedure will be discussed. Also the new procedures will be put into the TO’s mail slots. NCTD Safety and Operations receive a soft copy.
5. Staff learned there is no employee record for personnel receiving General Orders issued.
6. Staff observed General Orders in mail slots, bulletin boards, clipboards.
7. Personnel are issued new operating rules and General orders.
8. NCTD Safety Department advised Staff that assessments to evaluate safety-related impacts to rule and bulletin changes goes through Document Management System (DMS) process and tracked.
9. Currently, NCTD new SOP’s are in DRAFT form and under review for approval. At present, performing accident investigations, for example, during which video, horn usage, crossing gate interconnection and timing rules are reviewed and if necessary, go through the process (see Activities #1).
10. All accident/incidents, safety monitoring, rules compliance checks, etc. are sent to NCTD Safety Department where information is tracked in IndustrySafe. NCTD Safety Department has a strong hand ensuring safety concerns are addressed regarding compliance.
11. Refer to Activities #10.
12. All rules checks, assessments, and testing is input into IndustrySafe for NCTD Safety Department to utilize to track trends.
13. IndustrySafe has a Hazards Module that NCTD Safety Department utilizes including an internal process.

Track:Staff examined TASI and NCTD track inspection and maintenance of way manuals, standards and general orders and special instructions. Primary documents to be evaluated were 49 CFR, parts 213 and 214, GCOR (SCOR), RWP contractor manual, TMEI and CWR manuals. Staff verified that NCTD is reviewing and systematically revising these documents.Staff confirmed that TASI and NCTD are reviewing and revising pertinent manuals, track safety standards, RWP rules and regulations, operating rules, engineering rules and CWR manuals. New daily rules and regulations and bulletins are posted conspicuously in a commonly trafficked area. NCTD is meeting system safety program requirements for track maintenance procedures rules compliance.LRV:CPUC staff conducted interviews with the appropriate individuals from NCTD and Bombardier maintenance department. Information in regards to NCTD’s maintenance procedures, operating rules and procedures and special instructions were discussed. CPUC staff reviewed NCTD’s operating rules and maintenance procedures to verify if there was a structured program and culture in place for training on new information, special procedures, safety related issued, and maintenance procedures. Staff review of NCTD’s maintenance policies and operating procedures found them to be in good order and issued to relevant personnel upon initial employment and also reviewed annually and systematically within Bombardier’s daily job briefings. Revisions to any maintenance procedures or special instructions are documented, reviewed, and trained upon. New maintenance procedures are brought to the attention of relevant employees and then they are trained and tested on the new procedures. New procedures in relation to safety rules or programs are applied within their safety training matrix. General orders are issued and canceled by the designated manager and employees whose duties apply must review those that apply to their duties. NCTD’s safety program spends documented time and review on special conditions and when accidents occur. For example, rule application in relation to any specific accidents or rule violations. These safety issues are brought up in discussions and in their daily job briefings. All employees are issued copies of current safety rules and also a code of operating rules for their immediate review. Safety concerns, hazard analysis, and risk analysis are all part of NCTD’s safety program which is discussed in detail by managers and supervisors ensuring their role in effective safety communication. Supervisors and managers were found to be in support of all rules compliance activities as well as compliance checks and testing with their employees.Findings:Operations:1. Staff determined that when revisions are necessary to SOPs and TTSI, there is no documentation in a memorandum to file, which provides a summary of results and appropriate manager determination regarding revisions needed.
2. There is no sign-in procedure to ensure all Train Operators and Dispatchers received a copy of new and/or revised issues.
3. When CPUC Staff is issued operating rules or General Orders, the issuance and communication is not tracked to ensure CPUC Staff has the latest revisions.

Comments:LRV:Daily job briefings to any new changes to effected personnel in regards to operating rules, maintenance procedures, safety rules, and hazard analysis demonstrates to be an effective way for NCTD to communicate and enforce rule compliance.Recommendations:Operations:1. NCTD should create a formal process for operations procedures review. (SSPP, Section 13.0)
2. NCTD should initiate a sign-in procedure to ensure all appropriate personnel receive new and/or revised issues. (GO 143-B, Section 13.01)
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 13-F | Element | Rules Compliance:Operations Control Center |
| Date of Audit | August 27, 201509:00-11:00 | Department(s) | Safety DepartmentOperations Department |
| Auditors/ Inspectors | Debbie DzaidzioHoward HuieJoey Bigornia | Persons Contacted | Fred Sandoval – NCTD Signal EngineerRobert Lawrence – Communications Technician HTIMarK Richroth – Director of Communication Systems HTIDustin Barton – Systems Manager HTI |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. Escondido Subdivision Gangway Operation, dated November 2014
5. Herzog Temporal Separation Checklist, dated June 2012
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| Element/Characteristics and Method of Verification |
| **Rules Compliance: Operations Central Control**Interview NCTD representatives responsible for operations rules and procedures and review necessary documentation to determine whether:1. The OCC Manual is reviewed and revised, as necessary, on an as needed basis.
2. Revisions to the OCC Manual are made either through Operating Bulletins, or other written documents signed by the appropriate Department Managers.
3. Review Unusual Occurrence Logs and verify if properly maintained.
4. Herzog Dispatchers perform the “temporal separation” duties for freight train service in accordance with GCOR.
5. Perform review records to determine whether SCADA has been maintained as required, and that all preventative and corrective maintenance practices comply with the applicable reference criteria.
6. Review SCADA reports/logs related to intrusion alarms, false presence, and others associated with SCADA monitoring.
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| Findings and Recommendations |
| Activities:1. NCTD’s OCC Manual is reviewed and revised on an as needed basis.
2. OCC Manual revisions receive concurrence from appropriate Department Managers and distributed to affected personnel.
3. Staff reviewed Unusual Occurrence Logs, Track Bulletins, Temporary Separation logs and found them to be properly maintained.
4. Staff reviewed log for temporal separation which included switches and derails lined and locked to protect yard, switches at the west end of yard lead and Escondido Pocket Track are lined and locked for Main Track movement, and switches and derails at CP Railyard are lined and locked to protect Oceanside Transit Center.
5. NCTD’s CTC system is maintained by HTI, Herzog Transit Services, Inc. Staff interviewed HTI’s Communications Technician, Director of Communication Systems, and System’s Manager along with NCTD’s Deputy Chief Operation Officer –Rail Systems, and Signal’s Engineer to review NCTD’s CTC System Maintenance Plan and Disaster Recovery Plan to determine if HTI was following its procedures as required by HTI’s Rail CTC Dispatch Configuration, System Recovery and Maintenance Plan for NCTD and per requirement of 49 CRF 236, Section 18, Software Management Control. During this meeting, HTI was not able to produce any documentation for the requirements for system maintenance or disaster recovery. HTI could not produce any data or logs showing that they done any system maintenance, updates, or backups. HTI stated that they did not have a written System Maintenance Plan or a Disaster Recovery Plan for NCTD’s CTC system. However, HTI provides NCTD with Tier 1 and 2 support for their CTC system while Wabtec provides Tier 3 support. HTI stated the following, “Tier 1 is defined as when NCTD encounters a problem with the CTC system and starts troubleshooting. Tier 2 is defined as when the Tier 1 support cannot solve the issue and HTI’s Texas office takes over and provides support. When HTI’s Texas office cannot solve the issue or if the issue is a software bug within NCTD’s CTC system, Wabtec provides Tier 3 support to resolve the issue.” HTI says that Wabtec holds a copy of the latest and previous Train Management Dispatching System (TDMS) and database on their servers. However during the time of the review and to date, Staff has not seen any documentation or logs showing Wabtec has the latest database or TDMS files. HTI stated that they monitor all computers on NCTD’s CTC system that has an IP address. Items that are monitored are UPS, alarm checks, memory level, heat – temperature of systems, CPU heat, fan speed, etc. on a daily basis. However, no documentation or logs can be produced to show which computers and items are monitored or for what reason.

NCTD’s SCADA system is monitored and maintained by Datel. The main function of Sprinter’s SCADA system is that it monitors NCTD’s Communications Interface Cabinets (CIC) and Gangway Control Cabinets (GCC), per Datel Systems Inc. memo to NCTD dated 11/30/2014. SCADA records its activities on a softcopy log and is overwritten every 48 hours. Staff was also given SCADA Points from August 24 -25, 2015 to show SCADA system was functioning without problems. Staff was given Work Order records from June 3, 2015 to August 21, 2015 to show preventative maintenance and maintenance that was being performed. 1. NCTD’s Sprinter system does not have end gates for emergency egress as the platforms are at track level and does not monitor train traffic. Therefore there are no false occupancy or intrusion detection records from SCADA, as SCADA does not monitor these items. NCTD’s CTC system tracks train movement but HTI did not have any data for staff to review.

Findings :1. HTI does not have a written Preventative Maintenance Plan or Disaster Recovery Plan for NCTD’s CTC system.
2. HTI does not have a list of critical assets for NCTD’s CTC system.
3. HTI could not show that NCTD’s CTC system was monitored on a daily basis other than a verbal statement that NCTD’s system is being monitored.
4. HTI could not show how a software failure would be addressed on NCTD’s CTC system other than the CTC system has active mirrored servers, which only prevent system failure due to hardware failures. Mirrored systems do not address software failures such as computer viruses and software corruption.
5. HTI could not show that NCTD’s CTC system is backed up on a regular basis.
6. HTI does not have a scheduled window of time for NCTD’s CTC system maintenance.
7. Per RFP 10054, Section 05.02.1-1a - System Availability, it states that NCTD’s CTC system will be up 24 hours a day, 7 days a week and 365 days per year. Staff was given records of NCTD’s CTC system to review, which shows the CTC system was out of service during revenue hours for a total of 71 times, though the time of outage was not always documented.

Comments:None.Recommendations:1. NCTD should require HTI to create and follow a detailed written Prevent Maintenance and Disaster Recovery Plan for NCTD’s CTC system per HTI’s Rail CTC Dispatch Configuration, System Recover and Maintenance Plan for NCTD, and 49 CFR 236, Section 18.
2. NCTD should require HTI to create a critical assets list for NCTD’s CTC system to show which machines are critical to NCTD’s train movement functions. NCTD should require HTI to have specific monitoring and maintenance schedules for the critical machines per HTI’s Rail CTC Dispatch Configuration, System Recover and Maintenance Plan for NCTD, and 49 CFR 236, Section 18.
3. NCTD should require HTI to create a detailed plan to address software issues such as viruses, data corruption, etc. per HTI’s Rail CTC Dispatch Configuration, System Recover and Maintenance Plan for NCTD, and 49 CFR 236, Section 18.
4. NCTD should require HTI to regularly back up NCTD’s CTC system, (TDMS, Databases, etc.) on a regular basis per 49 CFR 236, Section 18.
5. NCTD should require HTI to create a plan to reduce the amount of outages of NCTD’s CTC system to comply with the requirements of RFP 10054, Section 05.02.1-1a.
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANIST DISTRICT (NCTD) |
| Checklist No. | 14-A | Element | Facilities and Equipment Inspections: Non-Revenue Facilities and Wayside |
| Date of Audit | August 20, 201509:00-11:00 | Department(s) | Facilities Department |
| Auditors/ Inspectors | Daniel Kwok | Persons Contacted | Adan RenteriaStacey CoppessErnesto BulliTony CollasoJennise McCain  |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. First Transit Facility Maintenance Plan dated January 2010
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| Element/Characteristics and Method of Verification |
| **Facilities and Equipment Inspections: Non-Revenue Facilities and Wayside**Interview NCTD representatives and review appropriate records for past 3 years to determine whether:1. Required inspections were performed per supporting references.
2. Inspections were properly documented and noted, and discrepancies were corrected in a timely manner.
3. Potential hazards found during inspections are immediately reported, documented, and tracked through resolution, Corrective Action Plans developed, and implemented in a timely manner.
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| Findings and Recommendations |
| Activities:1. TASI, contractor for NCTD, states they perform daily and monthly inspections of non-revenue facilities (SOF and MOW). If any deficiencies are found, TASI states they would be fixed immediately, if possible, or the facilities manager would log the issue into the OPRA work order system for corrective action if the issue needs follow-up. Staff inspected the Daily and Monthly facilities inspection records for SOF from 2015 to 2013. The Daily inspection form is a one month checklist, allowing 4 columns for each day of the week (4 columns for Monday, 4 columns for Tuesday, etc…). The form seemed inadequate to provide enough fields for the month (some months have 5 Mondays, etc.). Each facility item to be checked has one row, and one row for the initials of the employee doing the inspection for that day. Staff noted the “Initials” fields on the Daily Inspections was not filled in for any day. Staff also noted in the copies of the records provided, that each hand checked marking in the specific cell for the corresponding column and row of the daily logs were identical from one month to the next. The forms seemed to be duplicate copies with the “Month/Year” field being hand written for each Daily Inspection form. A similar observation was noted in the Monthly Inspection forms, with exception to the hand written “Signature” and “Date” fields. Staff asked for the original Daily and Monthly inspections for review, but TASI was not able to provide the forms.MOW facility inspection forms were not available during the day of the audit. Staff received MOW monthly inspection forms on 8/26/2015. NCTD mentioned to staff that the MOW facility was acquired in mid-2014, and did not have any inspections performed during that year. Staff reviewed the monthly inspection forms for June, July, and August of 2015. No discrepancies were found.NCTD states they perform random inspections of the SOF and MOW facilities. NCTD reviews items listed on their checklist and looks for any general hazards, which are documented in IndustrySafe. Any CAPs generated are also documented, assigned, and tracked in IndustrySafe. If a hazard is being tracked in IndustrySafe, then TASI would not log it in OPRA. However there may be duplicates of the hazard CAP in OPRA if TASI was already aware of the hazard. Staff reviewed the following NCTD Inspections for SOF and MOW facilities and associated CAPs:SOF Inspection:#11557 (10/24/2013) No CAPs from inspection#25261 (8/28/2014) CAPs: #14041  Start: 8/29/2014 Complete: 8/29/2014 #14042  Start: 8/29/2014 Complete: 9/5/2014#29666 (11/26/2014) No CAPs from inspection#35809 (3/27/2015) No CAPs from inspection#40581 (7/2/2015) CAPs: #24922  Start: 7/7/2015 Complete: 7/7/2015 #24923  Start: 7/7/2015 Complete: 7/8/2015MOW inspection:#21170 (6/6/2014) No CAPs from inspection#30980 (12/29/2014) No CAPs from inspection#32619 (1/29/2015) CAPs: #19085  Start: 2/2/2015 Complete: 2/4/2015 #19086  Start: 2/2/2015 Complete: 2/4/2015#35807 (3/24/2015) No CAPs from inspectionNo discrepancies found
2. Staff has found NCTD inspections were properly documented from the review of the records above. CAPs were logged, assigned, and completed within a reasonable time.
3. Staff has found from the records reviewed above that hazards found during inspections documented and tracked through resolution, Corrective Action Plans developed, and were implemented in a timely manner.

Findings:1. NCTD contractors (TASI) did not fully fill out Daily Inspection reports; “Initials” field was left blank for all inspections.
2. NCTD contractors (TASI) were unable to produce original daily and monthly facility inspection documents. Documents seem to be repeating photocopies due to recurring handcheck marks.

Comments:1. None

Recommendations:1. NCTD should review inspection documents of their contractors for completeness and accuracy.
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 14-B | Element | Facilities and Equipment Inspections:Stations and Emergency Equipment |
| Date of Audit | August 20, 201512:30-14:30 | Department(s) | Facilities |
| Auditors/ Inspectors | Daniel Kwok | Persons Contacted | Ernesto BulliMatt MaraciulloToby KishAdan RenteriaJennise McCain |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. NCTD Facility Management Plan dated November 2014
 |
| Element/Characteristics and Method of Verification |
| **Facilities and Equipment Inspections: Stations and Emergency Equipment**Interview NCTD representatives and review appropriate records to determine whether:1. Required inspections were performed.
2. Inspections were properly documented and noted discrepancies were corrected in a timely manner.
3. Potential hazards found during inspections were tracked from recommendation, Corrective Action Plans, and implementation.
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| Findings and Recommendations |
| Activities:1. NCTD subcontracts to First Transit, who performs cleanings of stations and transit centers. The 16 stations of the Sprinter line are divided into two groups of 8; each alternating set is inspected and cleaned every other day according to a schedule. Supervisors currently perform monthly inspections at least 2 times per month. If any deficiencies are found and cannot be immediately fixed, a work order is then created using Infor and assigned to the appropriate department. Staff reviewed the following First Transit monthly inspection records: November 2013 December 2013 August 2014 September 2014 May 2015 June 2015 July 2015No discrepancies found.NCTD inspects stations at least once per month, as required by SSPP Section 14. They base the inspections on a checklist, as well as look for any general hazards or cleanliness concerns. Inspections are logged in IndustrySafe, and if anything is considered deficient, a CAP is created and assigned. First Transit also states they create a duplicate work order for internal purposes. The IndustrySafe CAP number is listed on the Infor work order number for ease of reference. Once the CAP has been completed by First Transit, NCTD is notified to verify the completion of the CAP before it is closed. Only NCTD personnel can close CAPs in IndustrySafe.Staff reviewed the following NCTD monthly inspection records:Inspection Records: #41344 (7/23/2015) CAPs: #25263  Complete: 8/5/2015 #29067 (11/17/2014) CAPs: #16486  Complete: 11/22/2014 #16485 Complete: 12/9/2014 #16489 Complete: 11/20/2014 #16484 Complete: 11/24/2014 #16490 Complete: 11/19/2014 #16487 Complete: 11/26/2014 #16488 Complete: 11/24/2014 #18394 (4/9/2014) CAPs: #10218 Complete: 4/14/2014 #10219 Complete: 4/14/2014 #10217 Complete: 4/7/2014 #12534 (12/2/2013) CAPs: #6963 Complete: 1/7/2013 #6964 Complete: 12/8/2013 #6962 Complete: 12/8/2013 #11550 (10/24/2013) No CAPs from inspection.No discrepancies found.
2. From the records reviewed above, Staff has found that inspections were properly documented and noted CAPs were corrected in a timely manner.
3. From the records reviewed above, Staff has found that any issues found during inspections were tracked from recommendation, corrective action, and implementation.

Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 14-C | Element | **Facilities and Equipment Inspections: Tunnels, Bridges, and Aerial Structures** |
| Date of Audit | August 25, 201509:00-10:00 | Department(s) | Facilities |
| Auditors/ Inspectors | Kevin McDonald | Persons Contacted | Tim Morehead, Gil Rodriguez, Bryant Abel,Christina Chung |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Facilities and Equipment Inspections: Tunnels, Bridges, and Aerial Structures**Interview NCTD representatives and review appropriate records to determine whether:1. Structures inspections were performed.
2. Inspections were properly documented and noted, and discrepancies were corrected in a timely manner.
3. Potential hazards found during inspections were tracked until resolution.
4. The Safety Department is aware of all safety hazards identified from Facilities and Equipment Inspection.
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| Findings and Recommendations |
| Activities:Staff interviewed TASI and NCTD personnel in regards to inspections of bridges, culverts and aerial structures. NCTD personnel stated that there are no tunnels on the Sprinter system. Staff examined inspection records for several random time periods over the last three years. Findings:None.Comments:These inspections were performed and properly documented. NCTD is meeting system safety program requirements for inspections of aerial structures, culverts and bridges.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 14-D | Element | Facilities and Equipment Inspections:Signal Communication, Train Control, Grade Crossing |
| Date of Audit | August 19-20, 201509:00-17:00 | Department(s) | Operations Department (Wayside) |
| Auditors/ Inspectors | Heidi EstradaJoe Petito (FRA Observer) | Persons Contacted | Eric RoeFred SandovalClinton Gagner |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. CPUC General Order 75-D
4. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
5. Code of Federal Regulations 49 CFR, Part 234, Grade Crossing Signal System Safety
6. Manual Uniform Traffic Control Devices (MUTCD), Signage Requirements
 |
| Element/Characteristics and Method of Verification |
| **Facilities and Equipment Inspections: Signal Communication, Grade Crossing**Interview NCTD’s representative responsible for Wayside Maintenance, and randomly select Preventative Maintenance (PM) records from the past 3 years and determine whether:1. NCTD’s Track and Turnout and Crossing Maintenance:
	1. Perform detailed inspections of the mainline switches and at-least two (2) grade crossings components to determine whether or not they are in compliance with the applicable reference criteria.
	2. All required PM activities were properly documented and corrected in a timely manner.
	3. Defects and non-compliances noted on inspection report forms were tracked from recommendation, Corrective Action Plan, and implementation.
2. Vital Relays Preventative Maintenance:
3. Review the records of preventive maintenance, scheduled and unscheduled maintenance activities for vital relays to determine if inspections were performed at the required frequencies as specified in the reference criteria.
4. All required PM activities were properly documented and corrected in a timely manner.

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| Findings and Recommendations |
| Activities:Staff reviewed Grade Crossing Inspection Records, Switch Inspection Records, and Vital Relay Record and determine the following:* CP Yard – no defects
* Switch 1207 – no defects
* Hale Ave crossing – prints don’t match
* San Marcos Blvd crossing – no defects
* Buena Creek Rd crossing – prints don’t match

Findings:1. Plans not correct. (At hale Ave Highway-rail grade crossing)
	1. Cantilevers 1RA, 2RA, 3RA show 2 pair of flashing lights per cantilever. Only one pair of flashing lights per cantilever is installed in the field.
2. Plans not correct. ( As-builts needed for Buena Creek Rd Highway-rail Grade Crossing.)

Comments:None.Recommendations:1. NCTD should maintain a copy of crossing as-built drawings on-site.(49 CFR 234)
2. NCTD should maintain crossing configurations to appropriate as-built standards.(49 CFR 234 )
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 14-E | Element | Equipment Maintenance Program:Measurement and Testing Instrumentation |
| Date of Audit | August 20, 201510:00-1:00 | Department(s) | **(SOF)** Operations Department (LRV, Wayside)  |
| Auditors/ Inspectors |  **James Matus****Adam Freeman****Heidi Estrada** | Persons Contacted | Jason DixonNeil JeanesDon CurryIvan RangelFred SandovalEric RoeClinton Gagner |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. NTSB Safety Advisory R-13-1 and R13-2, Use of Jumpers
 |
| Element/Characteristics and Method of Verification |
| **Facilities and Equipment Inspections: Measurement and Testing Instrumentation**Interview responsible NCTD representatives from each department, review appropriate records, and inspect no fewer than eight measuring or testing instruments to determine whether:1. The selected gauges, micrometers, calipers, torque wrenches, multi-meters, etc. are properly inventoried, stored, distributed for use, calibrated at prescribed intervals, and marked, tagged, or otherwise identified to show current calibration status.
2. The next scheduled testing/calibration due date is shown on each instrument.
3. Tools and instruments requiring calibration are addressed in an appropriate procedure(s)
 |
| Findings and Recommendations |
| Activities: LRV:Staff selected various tools in NCTD’s inventory which are in use for operation. Staff reviewed record keeping procedures with regard to these tools and their required calibration. Staff inspected required calibration dates and intervals as well as tool identification. Tools inspected included:* Vacuum gage
* Digital caliper
* Torque wrench 800 nm
* Multi-meter
* Force gauge
* Sound level meter
* Torque wrench 100 nm
* Micrometer

Staff reviewed NCTD’s record keeping procedures to be effective and accurate. Records indicate and identify each tool with its own individual markings. Tools are inventoried as either active or out of service. Each active tool in use is stored in a tool crib and then issued to employees. Tools that required calibration were specifically marked with the calibration date. Tools that were inspected by staff were found to be in compliance with their proper calibration dates. Calibration dates are staggered throughout the year so that there is not an absence of specific tools due to calibration testing. Tools are calibrated yearly by an outside contractor. Furthermore, tools are inventoried in a tool calibration matrix which identifies each tool by name, calibration frequency, and calibration date.Signal:Staff reviewed calibration records for Multimeters and Flukes used in operations. Staff reviewed record keeping procedures with regard to these tools and their required calibration. Staff inspected tools for valid calibration dates and that they were accurately labeled. Findings:None.  Comments: Tool crib was found to be clean with places set aside for each individual tool. Randomly selected tools were found in a timely manner with each tool being specifically marked and properly calibrated. Staggered intervals of calibration works well with always having specific tools on hand for maintenance use.Recommendations: None. |

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| **2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD)** |
| **Checklist No.** | **15-A** | **Element** | **Maintenance Audits and Inspections:Rail Vehicles (Revenue & Non-revenue)** |
| **Date of Audit** | August 20, 201516:00-19:00August 21, 201509:00-15:30 | **Department(s)** | Operations Maintenance(LRV, Wayside)  |
| **Auditors/ Inspectors** | James MatusJohn MadriagaDebbie DziadzioAdam Freeman | **Persons Contacted** | Neil Jeanes, Bombardier LRV Maintenance Manager Ivan Rangel, Bombardier LRV SupervisorJason Dixon, NCTD, Rail System Safety Specialist Don Curry, NCTD Deputy Chief Operations Officer |
| **Reference Criteria** |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. NCTD Fleet Management Plan dated July 2014
 |
| **Element/Characteristics and Method of Verification** |
| **Maintenance Audits and Inspections: Rail Vehicles**1. Perform detailed inspections of NCTD’s revenue and non-revenue rail vehicles to determine if the following components are properly and adequately maintained:
	1. Axle-mounted gearbox
	2. Truck, axle, and wheel assemblies
	3. Brake systems
	4. Door assemblies
	5. Lighting
	6. Passenger doors
	7. Passenger component and safety appliances
	8. Public address and intercom systems
2. Determine whether the cars are in compliance with the applicable references based on record review and inspections.
3. Randomly select at least 10% of the fleet and review the maintenance records for those vehicles for the past 3 years. Check to see that:
	1. The preventive maintenance (PM) performed was at the required maintenance interval;
	2. The records were properly documented with the necessary review and approval
	3. Noted defects were corrected in a timely manner
4. Randomly interview maintenance personnel, including both supervisors and mechanics, to verify that they have available the most current maintenance procedures and that they understand and have been properly instructed on using the information.
5. Determine if personnel have access to the testing and measurement equipment or devices that may be specified by inspection and testing procedures.
6. Determine if personnel know of any immediate safety concerns or hazards that are the result of poor maintenance activities.
7. Verify if NCTD has performed their major change-out/overhaul of safety critical systems and or structure integrity of the LRV(s) as per maintenance procedures.
8. Randomly select a minimum of three Hi-rail maintenance vehicles to review the completed Preventative Maintenance (PM) and unscheduled maintenance records associated with each car selected over the last three years to determine whether or not:
9. The vehicles were inspected during preventative maintenance at the required frequencies as specified in the referenced criteria.
10. The records were properly documented with the necessary review and approval.
11. Noted defects were corrected in a timely manner.
12. Any necessary adjustments or modifications to the rail system are tracked and monitored for performance and safety.
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| **Findings and Recommendations** |
| Activities:Staff performed inspections and tested components for accuracy to NCTD’s light rail vehicles which included some of the following:* Axle mounted gearboxes
* Truck, axle and wheel assemblies
* Brake systems
* Door assemblies and blocked door function
* Lighting
* Passenger side doors, safety appliances & passenger components
* Warning Devices, Horn test both normal/emergency operations using decibel meter.
* PED instruction and usage decals
* In cab cameras

Staff also reviewed maintenance records pertaining to NCTD’s light rail vehicles which included the following maintenance intervals: 6 Week, 3 Month, 6 Month, 1 Year and 2 year inspections. The scheduled maintenance intervals are being performed as required by NCTD and all findings are being repaired and documented through work orders and followed up through NCTD audits. All records are readily accessible for review by CPUC staff.Staff interviewed NCTD personnel which included, but was not limited to Supervisors, Mechanics and Maintenance personnel to ensure employees are receiving adequate training and all updated maintenance procedures and policies pertaining to their duties. Staff also verified that employees have ease of access to testing and measurement equipment pertaining to their duties. Staff reviewed safety initiatives provided to NCTD maintenance personnel which include: * Safety alerts, workplace inspection and observations
* Safety injury/accident performance update
* Daily and weekly safety focus and follow up
* Health and safety information using computer technology

Staff inspected Hi-rail vehicles and preventive maintenance records pertaining to these vehicles. The records show proper preventive maintenance at required frequencies and proper recording of findings and repairs being noted. Staff noted the following findings below.Findings:1. Staff reviewed daily inspection reports that are being completed by Hi-rail operators. Staff found documentation provided to be incomplete and errors in the following areas:
* Inaccurate odometer reading
* Signatures
* Dates
* Defects found
1. Forms not being properly reviewed by management.
2. Staff inspected Hi-rail Vehicle #20 and found the following;
* Passenger side boom indicator broken and welding rod used as repair. Boom indicator should be repaired or replaced as intended.
* The 5/16 cable on truck was tested annually. Records show 5/16 cable on the boom has a maximum rating of 9,700 lbs. The cable block and truck shows maximum 10,000 lbs. fully retracted. Also, records show there is 5,000 ft. of cable tested and another record showing 311 ft. cable tested.
1. Staff noted invalid records and ratings provided for review.

Comments:Staff recognizes that the records and procedures that were reviewed in regards to the LRV maintenance and inspections are being performed at a very effective level; ensuring employees have a clear understanding of their maintenance responsibilities and duties. Recommendations:1. NCTD should provide Hi-rail operators training so that they have a clear understanding of how to properly complete an accurate daily inspection report.
2. NCTD management should follow up and review each daily inspection report.
3. NCTD should maintain Hi-rail vehicle #20 to applicable standards.
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 15-B | Element | Maintenance Audits and Inspections:Train Control and Signal Systems Maintenance |
| Date of Audit | August 19, 201509:00-17:00 | Department(s) | Wayside Department |
| Auditors/ Inspectors | Heidi EstradaJoe Petito (FRA Observer) | Persons Contacted | Eric RoeFred SandovalClinton Gagner |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. NCTD Communication/Signal Engineering Standards dated October 2010
5. NCTD Infrastructure Maintenance Plan dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Maintenance Audits and Inspections: Signal Systems Maintenance**Perform detailed inspections of the signal system components to determine whether or not they are in compliance with applicable reference criteria. Select at least two track sections at random to inspect, including at least one at-grade section and one aerial section (review records for past 3 years and conduct field inspections). |
| Findings and Recommendations |
| Activities:Staff performed field inspections and determined the following:* CP Yard - Power Switch # 5 found to be in a state in which the internal gears were not engaged, thereby rendering the switch and non-operable by hand. This was due to the switch point pressure being excessive, which causes the gears to not properly release and engage each other. Repairs, adjustments, and lubrication were made during the inspection. Equipment was left in a condition of functioning as intended.
* Switch 1207 – no defects
* Hale Ave crossing –
	+ Flashing front lights and back lights not appropriately aligned per design standards
	+ Pavement markings faded or non-existent
	+ Gate arm light unit not maintained per design specifications.
		- 'C' lamp on 1R gate not lit.
		- 2R gate lights not flashing in the designed sequence.
* San Marcos Blvd crossing –
	+ Flashing front lights and back lights not appropriately aligned per design standards.
	+ 1R gate badly faded and no longer reflective
* Buena Creek Rd – No defects

Findings:1. Crossing flashers not properly aligned at Hale Ave and San Marcos Blvd crossings.
2. Gate arms and lights not properly maintained at Hale Ave crossing.
3. Faded pavement markings at Hale Ave crossing.

Comments:None.Recommendations:1. NCTD should maintain flashers to be appropriately aligned for traffic.( 49 CFR 234)
2. NCTD should maintain crossing gate arms and arm lights to appropriate standards.(49 CFR 234)
3. NCTD should contact City to maintain pavement markings per MUTCD 8B.27.
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 15-C | Element | Maintenance Audits and Inspections:Tracks and Turnouts |
| Date of Audit | August 24, 201509:00-12:00 | Department(s) | Wayside Department |
| Auditors/ Inspectors | Kevin McDonald | Persons Contacted | Tim Morehead Gil Rodriguez Bryant Abel |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. Code of Federal Regulations 49 CFR, Part 213, Track Safety Standards
5. NCTD Infrastructure Maintenance Plan dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Maintenance Audits and Inspections: Tracks and Turnouts**Perform detailed inspections of mainline tracks to determine whether or not they are in compliance with applicable reference criteria. Select at least two track sections to inspect, including at least one at-grade section and one aerial section.Review NCTD’s preventative maintenance records, schedule and unscheduled maintenance activities for two separate 6 month periods in the past 3 years:1. Track Inspection:
	1. Review the track inspection reports from field inspection to determine whether:
		1. Mainline tracks, yard leads, transfer tracks, and Bypass Freight Track (BFT) were inspected at the proper frequency.
		2. Inspections were properly documented and noted defects were corrected in a timely manner and tracked until completion.
		3. Potential hazards found during inspections are immediately reported, documented, and tracked through resolution, Corrective Action Plans, developed, and implemented in a timely manner.
	2. Randomly select at least two separate recorded geometry car inspection reports to determine whether:
		1. Mainline tracks, yard leads, transfer tracks, and BFT were inspected at the proper frequency.
		2. Inspections were properly documented and noted defects were corrected in a timely manner and tracked until completion.
		3. Potential hazards found during inspections are immediately reported, documented, and tracked through resolution, Corrective Action Plans, developed, and implemented in a timely manner.
	3. Review NCTD internal rail defect reports to determine whether:
		1. Mainline tracks, yard leads, transfer tracks, and BFT were inspected at the proper frequency.
		2. Inspections were properly documented and noted defects were corrected in a timely manner and tracked until completion.
2. Turnout Inspection:
	1. Review at least two separate turnout inspection reports from field inspection to determine whether:
		1. Mainline tracks, yard leads, transfer tracks, and BFT were inspected at the proper frequency.
		2. Inspections were properly documented and noted defects were corrected in a timely manner and tracked until completion.
 |
| Findings and Recommendations |
| Activities:Staff perform a field inspection by Hi-rail vehicle from MP 121.6 to MP 99.32 on Mainline, which included 10 switches,1 grade crossing,1 Bypass Freight Track, 1 aerial track and 14 Control Points to determine whether or not they are in compliance with reference criteria.Staff examined track inspection and maintenance records on the NCTD Sprinter line for several random time periods over the last three years. The records that were inspected included mainline tangent track inspections, geometry car inspection reports, internal rail defects reports and turnout inspections. Staff discovered and examined turnout inspection records that were purported to be from 2015, but because of improper documentation of inspection date, could not be verified (see below).Staff did find that proper documentation of turnout inspections (section 2) by TASI has not been consistent or done according to the standards in the reference criteria in General Order 143 b section 14.05 or 49 CFR, part 213.241 (B). Specifically, NCTD personnel described the process of turnout inspection documentation as originating with the field inspection (hand written on the “Switch and Frog Inspection and Test Report”), which is then transferred to the same document in “Raildocs”, which in turn, is delivered to NCTD for storage. The second link of the turnout inspection chain, “Switch and Frog Inspection and Test Report” compiled and saved in “Raildocs” showed inconsistent and indecipherable inspection dates at the top left, in the second box, described as “Month/Year”. NCTD and TASI personnel described this document as showing the month and the year but the information in the box on two separate reports showed “31-July” or “30-June”, for example. Staff asked if this indicated the day and the month, but NCTD and TASI personnel confirmed that it is meant to be the “Month/Year”.TASI and NCTD personnel indicated that the “Switch and Frog Inspection and Test Report” that is compiled and saved in “Raildocs” is used as a tool to determine trends in track condition from month to month and year to year. TASI and NCTD personnel also stated that the inspector who had completed the inspections and signed off on them probably did not know how to properly document the date in the “Raildocs” system.Findings:1. Dates on “Switch and Frog Inspection and Test Report” are in an incorrect format.
2. Inconsistent date transfers from “Switch and Frog Inspection and Test Report” to Raildocs.

Comments:Aside from findings (see above), staff concluded that NCTD is satisfying system safety program requirements. Staff was impressed with the level of attention to detail brought to track maintenance and repair and aside from the one exception below, record keeping.The potential effect of an incorrect or indecipherable date on a track or turnout inspection is uncertainty as to whether the inspection occurred at the proper frequency, or if a required inspection was missed and possible doubt about the current condition of the turnout or track in question. Recommendations:1. NCTD should UPDATE “Switch and Frog Inspection and Test Report” to have correct date format of Month/Day/Year per 49 CFR, part 213.241(b).
2. NCTD should develop a process to ensure inspection dates are properly entered into Raildocs per 49 CFR, part 213.41.
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 16-A | Element | Training and Certification Programs:Train Operators, Controllers, and Line Supervisors |
| Date of Audit | August 21, 201509:00-12:00 | Department(s) | Operations Department (Operations, Dispatching) |
| Auditors/ Inspectors | Joey Bigornia | Persons Contacted | Tim Cutler – Project Director, HerzogCraig Bowerman - Sprinter Transportation Manager, TransdevJames Unger – Quality Control Supervisor, NCTD  |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. Veolia Record of Training Modules
 |
| Element/Characteristics and Method of Verification |
| **Training and Certification Programs: Train Operators, Controllers, and Supervisors**1. Select between two (2) and five (5) employees at random in each of the following classifications:
* Train Operators
* Dispatchers
* Chief Dispatchers
1. Review training, certification, and recertification records of the selected employees related to Road Way Protection, Personal Equipment Device, and other specific job required training to determine whether:
	1. All employees successfully completed initial training programs, and any discrepancies were addressed and resolved.
	2. All employees have been recertified at the required frequency and are currently certified to perform their duties.
2. Verify that a process for maintaining and accessing employee training records is in place.
3. Verify categories of safety-related work requiring training and certification have been identified.
4. Verify employee and contractor job classifications requiring initial and refresher training and certification have been identified.
5. Verify NCTD has a process is in place to assess compliance with its training and certification requirements.
6. Verify corrective actions taken to discipline employees and contractors for failure to follow established procedures after training and certification are established and consistent.
7. Verify that contractor training requirements are specified in contract documents.
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| Findings and Recommendations |
| Activities:Staff met Herzog Transit Services Inc. Project Director and Transdev Transportation Manager to review training and certification records. Staff determined the following:Dispatch Services Project Train Dispatch Training Plan for NCTD dated 12/17/14 is the Train Dispatcher Training program. The Project Director maintains a training matrix database identifying all employees, required qualifications, and due dates for each program. Staff reviewed Year 2013-2015 and found the following:1. Job Classifications

**Train Operator (T/O):**Transdev’s Record of Training Modules identifies seven (7) Modules required for each train operator (T/O):* Introduction & General Safety
* Company Policies & Procedures
* Safety Rules & Standard Operating Procedures
* Sprinter Core Operating Rules
* TTSI Signals & General Orders
* Vehicle Familiarization & Yard Training
* On Job Training – Mainline Training

Train Operators (T/O) are required to complete and pass required tasks identified in each module. The training program is approximately 300 hours and T/O’s are required to pass a requalification exam administered approximately six-months after completion of modules. T/O’s are also required to pass a Signal Exam, Roadway Worker Protection (RWP) training, and Personal Electronic Devices (PED) training. Staff randomly chose four Train Operators (T/O) and reviewed employee records for the following:

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| Employee | Hire Date | Requalification | RWP | PED |
| Employee 1 | 3/24/15. Finished training on 5/29/15. | 6/5/15,12/2/14 | 6/5/15,8/27/14 (first). | 9/27/14 |
| Employee 2 | 3/24/15. Finished training on 5/29/15. | 7/2/15,12/3/14 | 6/5/15,8/27/14 (first). | 9/29/14 |
| Employee 3 | 9/2/14. Finished training on11-14-14 | 5/28/15 | 5/30/15,11/8/14 (first). | 9/27/14 |
| Employee 4 | 2007 – First T/O Class. | 12/13/14,12/24/13 | 6/2/15,8/25/14 (first) | 10/5/14 |

If there are any discrepancies found during an exam, trainer goes over the issue and ensures the T/O understands the issue. T/O signs a test to acknowledge understanding. Staff found all T/O’s received the required training and were recertified at the required frequency.**Dispatchers:**Herzog Transit Services Inc. – Dispatch Services Project Train Dispatch Training Plan for NCTD dated 12/17/14 identifies Train Dispatcher Training program. The program consists of the following:* General Code of Operating Rules (GCOR)
* Sprinter Code of Operating Rules (SCOR)
* Maintenance of Way Operating Rules and Instructions
* Train Dispatchers Manual
* Timetable Special Instructions
* U.S. Hazardous Material Instructions for Rail
* Emergency Procedures Manual
* Air Brake and Train Handling Rules
* General Orders
* General Notices/Herzog Standard Operating Procedures
* Scenario Testing, Quizzes, and Final Exam

The Project Director maintains a training matrix database identifying all employees, required qualifications, and due dates for each program. Staff reviewed Year 2013-2015 and found the following:

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| Employee | GCOR/TDM | Evacuation Procedure 78 Bridge | Coaster ERP (every 2 yrs.) | Sprinter ERP (every 2 yrs.) | ROAD Trip |
| Employee5 | Not due,11-16-14,12-22-13,  | 3-24-14 (first) | 5-7-15,12-16-13 | 1-13-15,3-15-14, | 2-22-15,3-15-14,1-9-13 |
| Employee 6 | Not due, 11-11-14, 12-28-13. | 3-25-14 | 5-10-15,12-20-13 | 1-13-15,11-11-14. | 2-27-15,2-25-14,3-25-13. |
| Employee 7 | Not due,11-15-14, 12-28-13. | 3-25-14 | 5-7-15,12-17-13 | 1-16-15,11-15-14 | 3-14-15,3-4-14,3-21-13 |

**Chief Dispatchers**:Herzog Transit Services Inc. – Dispatch Services Project Train Chief Dispatchers Training Plan for NCTD dated 12/17/14 identifies Train Chief Dispatcher Training program. The training program is the same as the Dispatcher bullets listed above. The Project Director maintains a training matrix database identifying all employees, required qualifications, and due dates for each program. Staff reviewed Year 2013-2015 and found the following:

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| --- | --- | --- | --- | --- | --- |
| Employee | GCOR/TDM | New GCOR Copy | EvacuationProcedure 78 Bridge | Coaster ERP (every 2 yr) | Sprinter ERP (every 2 yrs.) |
| Employee 8 | 11-11-14,12-26-13  | 2-6-15 | 3-25-14 | 5-6-15,12-26-13 | 1-14-15 |
| Employee 9 | 11-16-14,12-10-13 | 2-7-15 | 3-29-14 | 5-10-15,12-26-13 | 1-13-15 |

Staff found all Dispatchers and Chief Dispatchers received the required training and were recertified at the required frequency.1. PED/RWP Training – see 1 above.
2. See 1 above.
3. See 1 above.
4. Transdev uses the Safe Track database for all employees, which identifies all training received, due, and alerts Transdev Management when the employee is due for any re-certifications (eg. SCOR, Mainline, RWP, PED, etc.) Per SSPP requirements.

Herzog uses Safe Track database for all employees, which identifies all training received, due, and alerts Herzog Project Director when the employee is due for any re-certifications (eg. GCOR, Roadtrips, etc. ) per SSPP requirements.1. NCTD Safety Department performs Annual Internal Safety Audits of Herzog and Transdev to confirm Contractor compliance for training and recertification programs
2. Staff reviewed Contractor violations and found the following:

A. Transdev T/O had a SCOR 6.32.2, Crossing Warning Systems Malfunction rule violation which occurred on June 6, 2015 and train operator (T/O) was disciplined in accordance with Transdev policies. The T/O immediately reported the rule violation same day to Transdev Management. T/O was given 2-weeks off, retrained, check ride on June 20, 2015, and authorized to return to work on June 21, 2015. Transdev sent copies of disciplinary corrective action records to NCTD Safety Department. NCTD’s Safety Department closed the rule violation on IndustrySafe which is NCTD’s database for tracking all corrective actions. B. Herzog employee test failures are captured on Safe Track which identifies the infraction found and corrective action(s) implemented. Additional tests are administered if necessary and discipline is assessed per Herzog’s Project Director. As of 2015, there are no major rule violations identified and all test failures are addressed and closed. 1. Transdev and Herzog identified training requirements in their contracts.

 Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 16-B | Element | Training and Certification Programs:Maintenance Employees |
| Date of Audit | August 20, 201511:00-02:00 | Department(s) | **LRV Maintenance Department** |
| Auditors/ Inspectors | James MatusAdam Freeman  | Persons Contacted | Neil JeanesJason DixonDon Curry |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. Bombardier Training Matrix dated 2008
 |
| Element/Characteristics and Method of Verification |
| **Training and Certification Programs: Maintenance Employees**Select at least three (3) employees from the Light Rail Vehicle Maintainers classifications.1. Review the training and certification records for the last three years to determine whether or not:
	1. The employee has received the required training to perform his/her duties
	2. The employee qualifications are on file.
	3. The employee has been re-certified at the required frequency
2. Verify that NCTD has a process is in place to assess compliance with its training and certification requirements.
3. Verify corrective actions to discipline employees and contractors for failure to follow established procedures after training and certification are established and consistent.
 |
| Findings and Recommendations |
| **Activities**:  Staff reviewed the training and certification records of active NCTD and Bombardier employees. The validity of current training records was reviewed for verification on specific types of training, training personnel, and the date of training. Staff reviewed training records for the past three years on employees to verify that initial training occurred and that a re-certification process was in place. The process of re-certification training was reviewed as well as documentation of re-certifications within correct time periods. Moreover, staff also investigated the disciplinary process of employees and contractors who violate such policies which they have been trained upon.  Training and certification records that were reviewed in all shifts in the maintenance department for proper training and re-certification indicate that they are current. Records of training obtained from NCTD demonstrated their ability to document current training statuses of each employee, their active certifications they hold, and the employee’s re-certification status within the training matrix. Records also indicate employees are current in their training and are able to perform their required duties because of this fact. Staffs findings verified that there is a structured training and certification process which is ongoing and current at this facility.  Consistent aspects of training included, but were not limited to, forklift training, maintenance and inspection, personal electronic devices, yard operations, blue flag, MSDS, CPR and AED, fall protection, hazardous materials, and lock out tag out. The established training matrix not only demonstrates their ability to accurately document who has been trained, but it also identifies their ability to track the timeline of training. For instance, re-certifications on training are displayed either as annual, every two years, or three years. There is also an initial one time training involved in the training matrix. The training matrix also displays employees training, which is due within 90 days in yellow, and also in 45 days colored in red.   Staff verified that there is a disciplinary process in place and is enforced for both employees and contractors. Verification of corrective action is in place for employees who fail to follow established rules provided by training. Coaching and a process of three strikes is part of the corrective action plan in place when violations occur. Staff also verified that there is a zero tolerance policy which is enforced on certain violations.**Findings:** None. **Comments:** NCTD and Bombardier have both demonstrated their ability to accurately document and train their employees. Recommendations: None. |

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| **2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD)** |
| **Checklist No.** | **16-C** | **Element** | **Training and Certification Programs:Maintenance Employees and Contractors** |
| **Date of Audit** | August 24, 201513:00-16:00 | **Department(s)** | Wayside Maintenance Department |
| **Auditors/ Inspectors** | Kevin McDonaldHeidi Estrada | **Persons Contacted** | Tim Morehead Gil RodriquezBryant AbelFred SandovalEric RoeClinton Gagner |
| **Reference Criteria** |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| **Element/Characteristics and Method of Verification** |
| **Training and Certification Programs: Maintenance Employees**1. Select at least three (3) employees in each of the following classifications:
	1. Signal Maintainers
	2. Track Maintainers
2. Review the training and certification records for the last three years to determine whether or not:
	1. The employee has received the required training to perform his/her duties
	2. The employee qualifications are on-file
	3. The employee has been re-certified at the required frequency
3. Verify that NCTD has a process is in place to assess compliance with its training and certification requirements.
4. Verify corrective actions to discipline employees and contractors for failure to follow established procedures after training and certification are established and consistent.
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| **Findings and Recommendations** |
| Activities:Track:Staff selected three Maintenance of Way employees: one “trackman”, one “inspector” and one “Probation Foreman” and examined initial training records and dates required for re-certification on track maintenance and inspection core competencies, such as RWP, “physical characteristics”(territory familiarity), GCOR (SCOR), track safety standards and hi-rail operations.Initially, TASI and NCTD personnel could only provide a comprehensive list of core trainings for one of the three requested employees. TASI and NCTD personnel stated that they, as well as the safety department, were dissatisfied with the current training document entitled “Safe Track”, and that there were plans to use a different system. TASI and NCTD personnel on hand then contacted the current training supervisor who was not able to attend this checklist. This supervisor then provided the comprehensive historical training records for the other two requested employees as well as the first employee. This document was entitled “Assessment History” and did not appear to have been generated in “Safe Track”. NCTD is meeting system safety program requirements for training and certification.Signal:Three Signal Maintainer records were reviewed and Staff noted all records were current and in compliance with NCTD’s SSPP. The Signal Maintainers have received the required training to perform his/her duties and their qualifications are on-file.HTI Supervisor explained that after receiving their initial certifications, signal employees’ day-to-day job duties serve to keep them engaged in the operation of the equipment and no “recertification” is necessary. Annual RWP is the only recertification that Signal Maintainers receive.Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 17 | Element | Configuration Management and Control |
| Date of Audit | August 19, 201510:30-13:00 | Department(s) | Developmental Services DepartmentEngineering DepartmentOperations Department |
| Auditors/ Inspectors | Daren GilbertStephen ArtusNoel TakaharaMike BorerMichael Lange (FRA Observer) | Persons Contacted | Jennifer Ryan - NCTDBruce Smith – SANDAGBryant Abel – NCTDTracey Foster – NCTDDon Filippi – NCTDDale Neuzil - SANDAG |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Configuration Management and Control**1. Randomly select two SANDAG / NCTD system modifications or design changes during the last 3 years to ensure configuration management documentation was properly updated to include at minimum:
	1. Engineering Design Peer Review;
	2. Design and Analysis Review by the Safety Department;
	3. Safety and Security Review Committee (SSRC) Approval
	4. Design and Analysis Review by CPUC if required;
2. Randomly select two Project Concepts submitted to the Safety Department and verify that:
	1. New Projects & Configuration Change Review forms were used.
	2. Forms were circulated to the Safety and Security Review Committee (SSRC).
	3. SSRC performed a review, analysis, and approval of form by issuance of a Configuration Management Compliance Certificate for project.
	4. The change was reviewed and approved by NCTD’s Chief Operations Officer
	5. Change was circulated to the proper departments for implementation.
	6. All necessary parties or contract employees within or outside the agency were properly notified about the change.
 |
| Findings and Recommendations |
| Activities:1. NCTD/SANDAG explained an existing MOU between the two agencies specifying SANDAG responsibility to implement major capital projects on the NCTD system. NCTD is responsible for operations maintenance projects. NCTD mentioned that they have done some bridge repairs but major repairs would be implemented by SANDAG. Currently SANDAG is not managing any Sprinter transit projects for NCTD.
2. NCTD/SANDAG provided two documents. One was the “NCTD/SANDAG Configuration Management Plan for NCTD Corridor Projects” dated August 2015. This plan includes several forms that are required for use in SANDAG/NCTD major construction projects to document sign off and review to design changes, construction memorandums, change orders, deviations, etc. The 2nd document provided was the “NCTD Passenger Rail Configuration Management Plan” dated August 2015. This document/plan outlines the systems in place at NCTD that implement configuration management as defined by that document. NCTD uses the Laserfiche Document Management System (DMS) to organize all electronic materials in a central database for use by all NCTD personnel. For NCTD projects As-Built Plans, Specifications, Final Costs, and Change Orders are added to the DMS. The plan also states that NCTD will transmit configuration changes resulting from operation, maintenance, or minor capital projects to SANDAG Document Control for their library and retrieval system. The document states that the NCTD Engineering Department of Development Services Division (DSD) is responsible for configuration management activities.
3. Several references to the NCTD System Safety Review Committee (SSRC) are made in both of the configuration management documents/plans. NCTD notes that the SSRC does not currently exist in that form. NCTD Safety Division has merged SSRC meeting activities into the monthly risk register meetings. As such the reviewers note that NCTD Safety division is then responsible to ensure that SSRC responsibilities in implementing the configuration plans are also transferred to the risk register meetings or alternatively to a separate committee as necessary.

Findings:None.Comments:Several references to the NCTD System Safety Review Committee (SSRC) are made in both of the configuration management documents/plans although the SSRC does not currently exist in that form. Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 18 | Element | Local, State, and Federal Requirements:Employee Safety Program |
| Date of Audit | August 26, 201509:00-11:00 | Department(s) | Safety Department Operations Department (Operations, Wayside) |
| Auditors/ Inspectors | Rupa ShitoleHoward Huie  | Persons Contacted | Loretta Rains, Manager of Safety and Environmental (Transdev)Damon Blythe, NCTD Rail Operations OfficerNeil Jeanes, Bombardier Site General ManagerGilberto Rodriguez, Assistant Manager of Track (Transit America Services Inc.) Dennis Mustoe, General Manager (Transit America Services Inc.)Eric Contreras, Training and Field Safety Compliance Officer (Transit America Services Inc.)Jason Dixon, System Safety Specialist  |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **Local, State, and Federal Requirements: Employee Safety Program**Interview NCTD personnel and review appropriate records for last 3 years to determine whether or not:1. NCTD Operations and Wayside contractors hold monthly safety meetings.
2. The monthly safety meetings appropriately respond to employees’ complaints regarding safety problems.
3. An appropriate procedure and reporting form for work place safety hazards is implemented, and distributed to all employees.
4. Employees are aware of the safety training and certification programs and properly documented.
5. Appropriate corrective actions regarding employee safety have either been satisfactorily completed, tracked, and documented to closure.
6. Has NCTD had any problems complying with local, state, or federal requirements? Review meeting minutes to identify any problems and assess how the issue was handled and resolved.
7. Verify construction projects have specific procedures in place to ensure worker protection and public safety by fostering an awareness and concern for safety on the job site.
8. Verify procedure implementation is the responsibility of the contractor organization performing the work and NCTD.
9. Verify NCTD’s operating and maintenance safety rules and procedures are included in construction contracts to bind contractors and employees to fulfilling their roles and responsibilities safely.
 |
| Findings and Recommendations |
| Activities: Staff interviewed NCTD personnel responsible for the Employee Safety Program and noted the following: 1. Monthly Safety Committee meeting occurs every second Friday of every month. The attendees include the following: MOW TASI, CPUC, NCTD Safety, Operations, Security, Signal TASI, FRA, Dispatching HTSI, SD Sheriff’s. Meetings have between 15 – 25 attendees a month. Sprinter also conducts a monthly safety meeting with the same attendees. Additional meeting is the Sprinter Facility Safety meeting and is an open meeting to all. Public safety is a hot item that’s always reviewed.
2. Sprinter Safety and Improvement Team Meeting is held monthly. Staff randomly reviewed the following meeting minutes: July 31, 2012, September 11, 2012, December 18, 2012, January 15, 2013, March 19, 2013, November 12, 2013, February 26, 2014, May 28, 2014, September 30, 2014. Facilities Maintenance and Mechanical personnel are involved in the meeting as well.
3. Sprinter Form (Sprinter Unsafe Condition Report) is a form used to report any unsafe incidents that needs to be addressed in the meeting. All the Unsafe Condition Reports are routed as appropriate. The individual tracks the incident/complaint to closure. A copy is given back to the employee who filed the complaint/issue form when the task has been completed.

NOTE: Staff had requested a few samples of the Employee Safety Report and or the Unsafe Condition Report for review but NCTD did not provide any documents. 1. TASI new employees go through an orientation program before they are allowed on the Right of Way (ROW). ROW training is required annually and IndustrySafe will alert the manager who is in need of training before the certifications for the particular employee expires. All ROW workers have stickers on the hard hats that show they are certified on the ROW and they will have an ID that shows they are current. The sticker has an ID number that’s the same as the ID number to show they are current. All ROW workers must have the sticker and ID card with them when on the ROW. If the ROW worker is missing the ID when a spot check is done, then the Investigator can check IndustrySafe to see if the person is who he says he is. IndustrySafe has a picture of the person along with the ID number in the database. If the ROW worker is missing both forms of ID due to any reason, the person is kicked off the ROW until a replacement card and sticker is issued. All construction contractors who are to access the ROW must fill out a Real Property Access DEV-4004 Report which states the purpose, scope of work, definitions, responsibility, policy/reference, procedure, records (records of work), appendices (attachments), training requirements, and approval information (who approved the access). TASI also provides job specific training program. NCTD RWP Training Manual dated May 28, 2014 was provided along with NCTD Railroad Contractor Safety (Zero Tolerance Safety Rules-Appendix C). Every contractor has its own Injury and Illness Prevention Plan (IIPP) and they train their employees on it. NCTD have their own IIPP and they train their employees during the new hire orientation.
2. Sprinter – Depending on the issue, a Sprinter Unsafe Condition Report form will be filled out by an employee or a supervisor. It is routed as appropriate. The form will be addressed in the monthly meeting and a copy will be given back to the person who filled it out. If the issues are an immediate threat to the employees, Safety or Dispatch will get the issue entered into IndustrySafe. Safety or someone will immediately go out and investigate the issue and call out the appropriate personnel/company to address the situation and close it out in IndustrySafe. All Sprinter departments and contractors have a hand in safety procedures and issues. Everyone has a say. Habitual issues such as trespasser are brought up in the monthly Safety meetings but the one off issues that are fixed are not and only entered into IndustrySafe. Anyone can open an item into IndustrySafe, then all contractors work to resolve that particular CAP. Unsafe Condition Report is submitted and Operations, Facilities, TASI, etc. work appropriately in resolving the issues. Funding needed CAPs go through monthly meetings but the immediate fixable items is worked to completion as soon as possible. Reviewed Corrective Action Recording Form 15420 (CY2014) and 25402 (CY 2015).
3. NCTD complies and manages all permits as required by the City, County, State, and Federal requirements. There has been no CAL OSHA violation on NCTD records for the past 3 years. Since NTCD’s property is surrounded by other agencies, business, etc., possibility of contamination from outside can leak onto their property and cause problems. NCTD is constantly working with other agencies and businesses to ensure NCTD’s property is clean and not in any violation of any government regulations.
4. All construction contractors who are to access the ROW must fill out a Real Property Access DEV-4004 Report which states the purpose, scope of work, definitions, responsibility, policy/reference, procedure, records (records of work), appendices (attachments), training requirements, and approval information (who approved the access). Hazardous work plans are included. How the project is going to be flagged and ROW safety will be given and addressed. Construction Contractors need to get permit and then submit work plan, and safety plan to NCTD Construction Department for approval. The Roadway Protection (RWP) and other training are given in place to train on job safety and concerns. Bridge 243 Riprap project was reviewed. The project included work plan, health and safety plan, job hazard analysis, activity hazard analysis, etc.
5. The contractors have to revise their work plan if they need to revise the construction specifications as per needs or access, etc. The work plan is a typical 3 month process and the amendment may not take the same time but depends on the work conducted. If scope of work changes the work plan needs to change as well. If the contractor does not follow their own work plan, they must stop that portion of the work and create an amendment to the work plan that they will work. Staff reviewed the work plan for Bridge 243 Riprap project.
6. Plan sets related to construction contracts are in place. They spell out RWP requirements and other training that need to be completed (Checklist 7 & 8 covered this in depth). Construction contracts have specific wording for Safety, ROW protection, working under the flagger and EIC. NCTD Safety receives a daily flagging schedule from MOW TASI so Safety knows who’s out where, when, and why.

TASI takes care of flagging every day the schedule is sent out to Operations and Safety on a daily basis. Safety can verify if the work zone flagging are not followed. Findings:None.Comments:None. Recommendations:None.  |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 19 | Element | Hazardous Materials Program |
| Date of Audit | August 27, 201509:00-12:00 | Department(s) | Safety Department LRV Maintenance DepartmentFacilities Department |
| Auditors/ Inspectors | Joey BigorniaHoward Huie | Persons Contacted | Loretta Rains, Manager of Safety and Environmental Control, Veolia TransportationNeil James – Bombardier General ManagerCasey Klein - BombardierJanice Mcain – NCTD Quality Control SupervisorToby Kish, NCTD Facilities CoordinatorTony Collaso – NCTD Facilities CoordinatorStacey Coppess – TASI Facilities ManagerMatt Marasciullo - First Transit AGM Facilities Maintenance |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
4. Bombardier Injury and Illness Prevention Program Training Matrix
5. First Transit Hazardous Materials Handling and Storage(SOP #A016) dated April 2011
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| Element/Characteristics and Method of Verification |
| **Hazardous Materials Program**1. Verify that NCTD has developed an OSHA or state equivalent compliant Hazards Material Program (if applicable). Verify program includes a process to familiarize the employees with the hazards presented by materials used in the work place and the Employee Safety Program.
2. Verify program assigns roles and responsibilities to specific departments and personnel for reviewing and approving materials used or to be purchased and used at NCTD.
3. Verify follow-up activities are performed for use of approved materials to ensure that safe and proper use, handling, storage, and disposal methods are employed.
4. Interview NCTD Safety Department representatives to discuss NCTD’s hazardous materials program and the role of the NCTD Safety Department in enforcing this program and determine the following:
	1. The procurement process for insecticides, herbicides, chemicals, and solvents.
	2. If a MSDS for each hazardous material is on file with the Safety Department.
	3. All approved MSDS are on-file and available for all employee access
5. Select at least six NCTD/Contractor employees responsible for handling hazardous materials, and review their training records to verify they are qualified for reporting requirements, product release or spill, and spill incident response and clean-up.
6. Verify hazardous materials discharge/spill reports for incidents reported in the past 3 years have been prepared and filed properly.
 |
| Findings and Recommendations |
| Activities:Staff interviewed NCTD Safety Department, NCTD Facilities Department, Transdev Manager of Safety & Environmental Control, Bombardier General Manager, Bombardier Mechanic, Transit America Services, Inc., and First Transit representatives and determined the following:1. Transdev

Transdev’s Environmental Management System Manual (SMS) dated September 2014 identifies all required employee training programs. The Manual includes the following documents:* Emergency Preparedness Plan
* Emergency Evacuation Response Plan (May 2014)
* Emergency Response Plan (April 2013)
* Sprinter Operations Facilities Personal Protective Equipment Policy (November 1, 2013)
* Sprinter Operations Facilities Yard and Shop Safety Handbook (April 15, 2014)
* Accident Investigation Procedure (2014)
* Sprinter Injury & Illness Prevention Program (5-6-14)
* Sprinter Hazard Communication Program (5-6-14)
* Storm Water Pollution Program (2014) for clean water & storage tank programs
* Toxic Gas Alarm Notification Procedure (10-16-12).

The Transdev Sprinter Annual Training Outlines identifies the following required training:* Operating Rules
* Hazard Communication
* Stormwater Pollution Prevention
* Spill Prevention Control and Countermeasure Plan
* Spill Emergency Response and Communication
* Hazardous Materials Business Plan
* Facility PPE Policy
* Emergency Evacuation and Response Plan
* Roadway Worker Awareness

Staff reviewed 2012-2015 Transdev employee annual training records and found all employees were recertified at the required frequency.1. Bombardier

Prior to any new material purchase for use at NCTD Sprinter Operations Facilities, a verification of chemicals allowed is reviewed. If the material isn’t identified on Bombardier’s approval list, the product isn’t purchased and a substitute product is sought (See CL #21 Procurement). Material Safety Data Sheets (MSDS) are posted in the shop, which explains product use, hazards, and personal safety necessary when handling material. Work place inspections cover the check and standards are in place for waste side disposal. Only Bombardier employees are allowed to dispose of waste materials in the oil drums following vehicle maintenance tasks.The Bombardier General Manager performs inspections the minimum required once/month however it can occur twice /month. The inspection consists of the following: 1. Is the hazardous material/waste storage area clean and orderly?
2. Is there adequate secondary containment for all liquid hazardous waste containers?
3. Is there a binder with the MSDS for every Hazardous material stored in the Hazardous materials area located in the Facility aisle-way at the MSDS container?
4. Is the area free of obstructions and proper signage for clearly readable?
5. Are all open in use liquid hazardous materials drums with pumps attached, staged on spill containment?
6. Are all drums and containers in the Hazardous material area clearly and properly labeled?
7. Are all drums and containers in the Hazardous waste area clearly and properly labeled?
8. Is the weekly inspection check list of the area up to date and clearly accessible to the area?
9. Is all liquid Hazardous waste staged on spill containment?
10. Is PPE available and in good condition and used properly?
11. Is an Eye wash station in area and tested operational?

Staff reviewed the Hazardous Material / Hazard Material Waste Storage Area Inspection Checklist (Hazmat 15) weekly records dated January 7, 2009 - August 25, 2015. The inspection checklist reviews the following:1. Safety and Emergency Equipment
2. Floor Aisles and Other Areas
3. Storage
4. Ladders, Scaffolds and Elevated Places
5. Equipment and Machinery Maintenance
6. Electric Circuit Apparatus or Equipment
7. Welding Equipment
8. Hazardous Material / Waste Disposal
9. Spill control
10. Fire Prevention
11. Power Operated Equipment Inspection

Staff’s random sample of 2013-2015 Inspection records found the following:January 2015 Inspection Report – no findings.February 6, 2015 Inspection Report – waste containers scheduled for collection on 2/11/15. April 17, 2014 – cleaning and sorting.May 2014 – no findings.June 2014 – no findings.July 21, 2014 – Filters changed, drum label was missing and it was replaced.October 17, 2013 - oil drum labels were needed and they were installed.The Bombardier inspection reports identified eye wash solutions are changed out every 90 days. Only Bombardier employees are allowed to dispose of waste materials in the oil drums for any maintenance tasks.1. First Transit is responsible for NCTD bus and transit stations cleaning. All materials used are procured from Waxie. MSDS sheets are located in 2 places: at shop (dispatch) and every truck (mobile janitorial units). All materials are stored at the West Division or on the “Mobile Janitorial Units” such as cleaning supplies.

TASI is responsible for cleaning and maintenance at Sprinter Operations Facilities only and no other divisions. Cleaners such as 409 are purchased from Home Depot. There are 3-MSDS books for cleaners used and the books are located at SOF shop. Paint thinner is the strongest chemical used.NCTD Safety Department inspections at SOF consists of visual checks for missing labels, review of material storage cabinet, MSDS sheets for all materials, and waste disposal logs. Safety inspections are currently performed once/month. Approximately 3-months ago, random inspections were performed however, Safety Department combined with Operations Department for joint-inspections which are now once/month. The Operations and Safety Department jointly perform the monthly inspections of West Division, SOF (east), and Stuart Mesa where Coaster trains are maintained. All inspections are captured on IndustrySafe for any discrepancies found. a. Contractors are responsible for procurement of pesticides, herbicides, and solvents as described in 2-3 above. For Procurement process, see Checklist #21. b. Safety Department has access on-line to all MSDS sheets for materials used at NCTD. c. Staff performed a SOF shop floor inspection and reviewed the MSDS Log books. The shop floor MSDS Log book (A-K) index sheet identified an update on 8/21/15 and MSDS (L-Z) index sheet identified an update on 8/25/15. Bombardier staff also demonstrated employee access to MSDS on-line is readily available. 1. Staff reviewed Bombardier Annual records reviewed for Hazardous Waste Training dated September/October 2012, October 9-13, 2013, and October 17-22, 2014. All Bombardier employees were recertified at the required frequency.

6. Bombardier Staff and Transdev Staff both report there have been no hazardous material spills for the past 6-years.Findings:None.Comments:None.Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 20 | Element | Drug and Alcohol Program |
| Date of Audit | August 21, 201509:00-12:30August 25, 201510:00-12:00 | Department(s) | Human Resources  |
| Auditors/ Inspectors | Daniel Kwok | Persons Contacted | Susan LuceroDamon BlytheEric RoeTim MoreheadDanny BaileyClinton GagnerDennis MustoeKaren TucholskiNeil JeanesJohn LeeLoretta RainsCraig Bowerman |
| Reference Criteria |
| 1. Code of Federal Regulations, Title 49 Part 655 – Prevention of Alcohol Misuse and Prohibited Use in Transit Operations
2. CPUC General Order 164-D
3. CPUC General Order 143-B
4. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
5. NCTD Board Policy No. 24, Drug and Alcohol Policy, February 2014
6. Transdev Drug and Alcohol Policy, July 2014
7. Herzog Control of Drug and Alcohol Part 219, September 2014
 |
| Element/Characteristics and Method of Verification |
| **Drug and Alcohol Program**Interview NCTD representatives and review appropriate records prepared in the past 3 years to:1. Verify the Substance Abuse Program meets current FTA requirements.
2. Verify NCTD has a policy for managing the use of over-the-counter drugs.
3. Select at least two safety-sensitive employees who tested positive for drugs or alcohol in the past 3 years and determine whether:
	1. The employee was evaluated and released to duty by a Substance Abuse Professional (SAP);
	2. The employee was administered a return-to-duty test with verified negative results;
	3. Follow-up testing was performed as directed by the SAP according to required follow-up testing frequencies in the reference documents after the employee returned to duty.
	4. Employees who retested positive are disciplined.
4. Determine if NCTD has ever undergone a federal or state audit of its drug and alcohol program?
	1. What were the recommendations if any?
	2. Have corrective actions to recommendations been addressed?
5. Confirm that this information was accurately reported to FTA through the RTA’s annual submission to the Drug and Alcohol Management Information System (DAMIS).
 |
| Findings and Recommendations |
| Activities:Staff interviewed NCTD and its contractors and have found the following:HTSI (Herzog Transit Services Inc.): 1. Dispatchers are employed by HTSI (subsidiary of Herzog), and their Drug and Alcohol plan is compliant with 49 CFR 219 since dispatchers control both COASTER (railroad) and SPRINTER (transit) lines.
2. There is no prohibition for the use of over-the-counter drugs, but employees should consult a medical professional if they feel the drugs may affect their job duties.
3. HTSI states there have been no dispatchers that have tested positive for drug and alcohol in the past 3 years. Staff reviewed testing records for the past 3 years and found that 7 dispatchers were tested in the past 3 years. HTSI describes that 2 employees are selected every month. These employees are selected from a pool which consists of all employees covered under the 49 CFR 219 plan (all TASI (which includes KABLER employees) and HTSI employees). The selection process for employees are random, and a 3rd party performs the selection for which employee will be tested that month. If an employee were to test positive, they are decertified and given the option to go through the Substance Abuse Program (SAP). If they refuse to participate in the SAP, then they are terminated. After they complete the program, they may return to work, but are subject to additional random testing for 1-2 years (12 tests, 6 within first 6 months of returning to work). If the employee tests positive again, they are terminated.
4. Dispatchers have been audited once (10/20/2014) in the past 3 years. The audit had no recommendations, and no corrective actions.
5. HTSI states the requirement is not applicable to dispatchers. The FRA requires employees must work over 400,000 man hours before needing to submit statistics.

HTI (Herzog Technologies Inc.): Signal maintainers were employed by KABLER (subsidiary of Herzog) from 2013 to June 2014. From July 2014 to Present, the signal department of KABLER was transferred to HTI (subsidiary of Herzog). 1. Signal employees were employed by KABLER (subsidiary of Herzog) from 2013 to June 2014, and are employed by HTI (subsidiary of Herzog). Their Drug and Alcohol plan was the same as the HTSI/TASI plan, and compliant with 49 CFR 219. After the transfer, Herzog states the signal employees were automatically covered under the HTI Drug and Alcohol policy, which is also compliant with 49 CFR 219. Staff asked to review D&A training records for signal employees after the transfer. HTI was able to provide annual training records (Feb, 2015), but was unable to provide initial training records for D&A.
2. There is no prohibition for the use of over-the-counter drugs, but employees should consult a medical professional if they feel the drugs may affect their job duties.
3. The signals department while under Kabler, is randomly selected from the NCTD HTSI/TASI/Kabler combined pool. After the signals department was transferred to HTI, the random selection is chosen from the corporate HTI signal worker pool, which includes employees not working at NCTD. HTI states there have been no signal employees that have been tested positive within the past 3 years. Staff reviewed the D&A records for signal employees and have noted the following: From 2013 to June 2014, 3 signal employees were randomly selected for testing From July 2014 to July 2015, 6 signal employees were randomly selected for testingIf an employee were to test positive, the discipline process would be the same as HTSI.
4. There have not been any audits from the FRA within the last 3 years.
5. HTI states the requirement is not applicable to signal workers. The FRA requires employees must work over 400,000 man hours before needing to submit statistics.

NCTD:1. NCTD states their D&A plan is in compliance with FTA requirements.
2. NCTD states their policy for over-the-counter drugs is described in Board Policy No. 24. The use of any legal drugs which impairs the employee to do their job function is prohibited. Employees must report drugs which may impact their ability to work using a “Prescription Drug Notification Form”. Failure to report legal drug use results in discipline, and may include termination.
3. NCTD has a zero tolerance policy, if the employee tests positive for the D&A test they are terminated. Failure to take the test will be considered a positive. NCTD and its contractors are required to randomly test 10% of their employees for alcohol and 25% of their employees for drugs per year, with at least one test per month.NCTD states there have been no positives for D&A test for the past 3 years.Staff reviewed the random drug test dates for the following employees:

|  |  |
| --- | --- |
| Employee # | Date of test: |
| 7126 | 7/26/2014 | 3/9/2014 |  |  |
| 4387 | 6/20/2014 |  |  |  |
| 4292 | 8/19/2015 | 3/24/2015 | 8/2/2013 | 6/14/2013 |

  No discrepancies found1. The FTA performed a Drug and Alcohol Compliance Audit on NCTD and its contractors (Transdev, Bombardier) on 12/17/2013. The audit found 3 findings. NCTD corrected them on 3/19/2014.FTA closed out the items on 5/14/2014.
2. NCTD sends yearly DAMIS reports to the FTA. NCTD also reviews and approves of DAMIS of their contractors (Transdev & Bombardier) before they submit their forms to the FTA. The FTA considers NCTD, Transdev, and Bombardier to the separate entities, but still holds NCTD responsible for their reporting.Staff reviewed NCTD DAMIS submittals for 2012, 2013, and 2014. No discrepancies found.

Transdev: Transdev is contracted to oversee Train Operators and Train Maintenance. Maintenance is subcontracted to Bombardier.1. Transdev states their D&A plan is in compliance with FTA requirements. Program and requirements are listed in “Zero Tolerance Drug and Alcohol Policy For Employees in Safety-Sensitive Job Functions - Rev 12”
2. Transdev states if the operator were to take over-the-counter drugs, they must have a doctor/nurse/pharmacist fill out the “Prescription/No-Prescription” form. The form is turned into the D&A program administrator and the Medical Review Office will make a determination if the employee is safe to perform their duty. The employee is not allowed to work until the determination has been made.
3. Transdev states there have been no positive results from random drug tests within the past 3 years. Transdev also states they have a zero-tolerance policy; if an employee does test positive, then the employee is terminated. Transdev uses 3rd party administrators to select and perform the drug tests. Staff reviewed random drug testing records for years 2012, 2013, and 2014.

|  |  |  |
| --- | --- | --- |
| Year | Date | Employee # |
| 2012 | Aug-12 | 217 |
|  | Oct-12 | 219 |
| 2013 | Apr-13 | 247 |
|  | Aug-13 | 236 |
| 2014 | Jan-14 | 114 |
|  | Sep-14 | 240 |

1. NCTD and its contractors underwent an FTA audit in March 2014. There were no recommendations for Transdev resulting from the audit.
2. Transdev submits yearly DAMIS reports, after NCTD reviews and approves the reports. Staff reviewed Transdev DAMIS reports for 2012, 2013, and 2014.No discrepancies found.

Bombardier: 1. Bombardier states their program is in compliance with FTA requirements. Program and FTA requirements are listed in “Bombardier OP-N-11-018 Rev 12”
2. Bombardier states they have a policy for over-the-counter medication. The employee must consult obtain clearance for use of over-the-counter medication while performing safety sensitive functions from a physician/pharmacist or medical services.
3. Bombardier states no employees have tested positive for drug and alcohol in the past 3 years. If an employee were to test positive on their test, the employee would be terminated. Bombardier also uses 3rd party administrators to select and perform the drug tests.Staff reviewed random drug testing records for years 2012, 2013, and 2014.

|  |  |  |
| --- | --- | --- |
| Year | Date | Employee # |
| 2012 | Aug-12 | 164119 |
|  | Sep-12 | 166578 |
| 2013 | Jul-13 | 10200523 |
|  | Aug-13 | 163897 |
| 2014 | Feb-14 | 10200523 |
|  | May-14 | 164119 |

1. NCTD and its contractors underwent an FTA audit in March 2014. There were no recommendations for Bombardier resulting from the audit.
2. Bombardier submits yearly DAMIS reports, after NCTD reviews and approves the reports. Staff reviewed Bombardier DAMIS reports for 2012, 2013, 2014.No discrepancies found.

Findings:None.Comments:1. HTI was able to provide annual training records (Feb, 2015), but was unable to provide initial training records for D&A.

Recommendations:None. |

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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 21 | Element | Procurement Process |
| Date of Audit | August 26 & 27, 2015 | Department(s) | Procurement DepartmentOperations Department(LRV, Wayside) |
| Auditors/ Inspectors | Rupa ShitoleHoward HuieMike Warren | Persons Contacted | Karen Tucholski, NCTD Chief Administrative Officer Mike Wygant, NCTD Chief Operations Officer Damon Blythe, NCTD Deputy Chief of Operations- Rail Samuel Elmer, NCTD Chief Procurement & Contract Administration Officer Neil Jeanes, Site General Manager, Bombardier Ivan Rangel, Supervisor of Maintenance Equipment, BombardierMichael Kelsey, NCTD Quality Control Supervisor (Rail)  |
| Reference Criteria |
| 1. CPUC General Order 164-D
2. CPUC General Order 143-B
3. NCTD System Safety Program Plan (SSPP) version 10 dated January2014
4. NCTD Procurement Manual, Revision 16, January 2014
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| Element/Characteristics and Method of Verification |
| **Procurement Process**Interview NCTD representatives and review appropriate documentation for the past 3 years to:1. Verify NCTD and its contractors are following applicable Procurement Policy and Procedures, and ensure safety issues and concerns are addressed in the procurement process.
2. Determine adequate procedures and controls are in place to preclude the introduction of defective or deficient equipment into the NCTD System.
3. Verify that the SSPP contains a description of the basic procurement processes that must be followed by NCTD to assure that safety concerns and issues are addressed.
	1. Are procurements of new equipment and material first reviewed by the engineering, operations, and/or maintenance staff to verify the new equipment or materials won’t present a hazard to the existing system?
	2. Do all procurement processes for hazardous materials address all appropriate rules and regulations?
 |
| Findings and Recommendations |
| Activities: Staff interviewed NCTD and their Contractors (Bombardier/TransDev) representatives, reviewed appropriate documentation for the past 3 years and noted the following during and after the review:1. NCTD has a Contract and Procurement agreement with Veolia (Bombardier) document #05026 dated August 14, 2007 that is used as a guideline for procuring mass items such as every day consumable items, Original Equipment Manufacturer (OEM) parts, etc. The Subpart of the contract specifies the exact requirements of what is needed and the guidelines. The contract process documentation specifies NCTD and Contractor(s) responsibilities on who does what and who is responsible for what.

NCTD and its Contractor Quality Control (QC) personnel verify and test quality of each part or item procured. The detailed testing is done by QC.Sprinter has a waiver for Buy American by FTA, $480 million for a turnkey project with the cars. However, the FTA will not give waiver for Buy American for parts. Anything under $100,000, NCTD is allowed to use FTA money but it is a onetime deal only and no bid splitting is allowed. Bid splitting is defined as when a purchaser splits the order into two so the order falls below the allotted $100,000 amount. Commission Resolution ST-68 is a list for compliance if NCTD is buying something that’s not OEM. Reviewed Cosid 828 Disc Brake Pad Test Report and Analysis dated December 1, 2014.Track and Signal Procurement – NCTD has different contracts but the same basic principles apply except for some few changes must be reflected. 1. QC officer/supervisor housed at the Sprinter Operations Facilities (SOF) review maintenance activities for all fields (LRVs, Facilities, etc.). Contractors will note any defects and any inconsistencies in parts when they are being installed. QC meets monthly with Chief Operations Officer (COO) to discuss any project problems. All items are only allowed to be ordered that are on an approval list and list of approved vendors. NCTD has 4 QC personnel, out of which 2 officers/supervisors are assigned to fleet maintenance only (Both Bus and Rail – one QC is dedicated to rail activities only). NCTD has one QC Rail Operations Officer and a QC supervisor assigned to Rail Operations only.

NCTD Capital Spares are inspected before shelved and inspected every year. Bombardier has their own policy on inspection. However, before the item is installed, it is inspected by the technician and ensured that there are no defects. Parts do not need to be purchased from an approved vendor but items that are not from an approved vendor needs NCTD approval and are inspected upon delivery before being shelved. 1. Staff found the following in regards to the procurement process:
2. OEM equipment that is approved in Maximo, Bombardier’s purchasing database, the item is inspected by the technician and is randomly audited by NCTD QC personnel or Safety. If it’s a new item, it must be reviewed by NCTD and Bombardier’s engineering, regulatory, operations and maintenance staff. Shipping and receiving only inspects the package to see if the box has been damaged. The item itself would not be inspected.
3. NCTD would go through environmental review before procuring hazardous materials. NCTD does not have any hazardous material outside of oil and fuel for the trains. Bombardier has all permits for hazardous materials for purchase.

CPUC Staff follow-up meeting on 8/27/15 to discuss procurement process and review records: * Staff noted that the current SSPP version Organization Chart has not yet been updated to reflect that Procurement is not under the General Counsel.
* The Department Manager puts in the request for a new procurement with specifications and then vendors (depending on the dollar amount). Formal solicitations are requested to bid and then the purchase order is approved. NCTD QC and Bombardier conduct testing together for first article(s)/item(s) to be procured. If not approved the request of rejection or modification is sent to Contracts Department. Deputy Chief or Chief Operations Officer (COO) signs-off on the purchase order related to certain dollar amount and depending upon the funding where it is coming from. The following records were reviewed:
* Original Purchase Order (PO) #32292-000-OP (Vendor Transdev) dated 8/24/2015, NCTD General Provision for POs, Micro Purchase Checklist dated 8/21/15, and the passenger window for unit 4011 was vandalized. (COO signed copy 8/12/15), Procurement Activity Documentation (PAD) is signed off by the contracting officer dated 8/21/15, Bombardier Work Order Report #809211.
* Original Purchase Order (PO) #32246-000-OP (Vendor Bombardier Mass Transit Corp.) dated 8/7/15, General Provision for POs, Micro Purchase Checklist dated 8/7/15, Accident car unit 4011 repairs, (COO signed copy 7/23/15, PAD is signed off by the contracting officer dated 8/7/15., requisition reprint dated 7/27/15
* Original Purchase Order (PO) #32247-000-OP dated 8/7/15 (vendor Transdev), General Provision for POs, Micro Purchase Checklist dated 8/7/15, and the passenger window for unit 4008 was vandalized. (COO signed copy 8/3/15), Procurement Activity Documentation (PAD) is signed off by the contracting officer dated 8/7/15, Bombardier Work Order Report #805537, requisition reprint 8/4/15.
* Procurement and Contract Administration Department agreement for Rebuilding of the Sprinter Fleet of Transmission No.16000- OS signed by Deputy Chief, General Counsel dated 8/2015, Information for Bid (IFB) document, Requisition, Revision history, PAD, Business Case Analysis and Justification.
* Sealed Bids Checklist, IFB, and History of Procurement Form for Sprinter Brake System Float Material – Carbody (32045-OP) were reviewed. This checklist is used for all procurements where the grantee has selected the sealed bid method of procurement. If the contract is for construction, the supplemental Construction Checklist must also be used.
* Shop Order #T-2650 dated 6/9/2015 – Ecomat Failure Analysis Report, Ecomat Disassembly Report, Ecomat Failure Analysis (All) Report, Ecomat Assembly Form, and Hydraulic Control Unit Sheet. The fields “Name and Date” were left blank on the form.

CPUC Staff (Howard) follow-up meeting on 8/27/15 to discuss procurement process with Bombardier and review records:1. Bombardier has a base amount contract with Transdev. Transdev has a Preventative Maintenance (PM) contract with NCTD. Bombardier’s contract with Transdev is a PM, where materials and labor is included in the contract. Within the base contract, vandalism isn’t included in the PM, such as broken windows, worn seats, exterior vandalism, etc. and is invoiced to Transdev then invoiced to NCTD. However damaged seats, due to vandalism, are included in the base PM contract. Under Bombardier’s contract, all purchases must be approved parts and from approved vendors. There are no exceptions.
2. Upon delivery to Sprinter’s Operations Facility (SOF), the package is received by Bombardier’s Supervisor of Maintenance Equipment. The package is opened and visually inspected for defects and is checked into the system if the part number matches the order reference number, which points back the ordered part. Once the part is checked in, then it is shelved and the technician re-inspects the part before it’s installed. Approximately 20% of Bombardier’s purchases are through Bombardier’s purchasing headquarters (HQ) in Toronto, Canada, which are Capital Projects purchases and not PM purchases. HQ has procedures for purchasing and for shipping and receiving, but Bombardier Escondido Sprinter follows separate procedures. Procurements through HQ undergo the same receiving process as other procurements upon arrival at SOF. At the time of the Safety Review, Bombardier’s Site General Manager, was not aware that Bombardier Escondido Sprinter had a written procurement procedure. However, Bombardier’s Supervisor of Quality was aware that Bombardier Escondido Sprinter had and is following SOP-ESC-004 - Receiving Materials. Upon learning of the SOP, Bombardier’s Site General Manager revised SOP-ESC-004 - Receiving Materials to Revision 2. Staff randomly selected and reviewed the following purchases in Bombardier’s Maximo database for compliance:
* Fuel Filters – Ordered on May 4, 2012 – 2 batches received May 30, 2012, rest of June 11, 2012. The invoice came on the same days as they were received and shelfed.
* Engine Air Filter – February – Order date December 9, 2011, received February 15, 2012.
* Transmission Filter – Ordered October 22, 2012, received December 7, 2012.
* Fuel Filter Pre-filter – Order November 8, 2013, December 7, 2013.
* Motor Oil for the Train – Ordered March 6, 2013, received March 25, 2013.
* Wide Low Floor Window – ordered January 7, 2014, received May 6, 2014, reordered April 2, 2014, adjusted or zero out July 16, 2014.
* Front Window – Ordered December 30, 2013, received February 27, 2014.
1. Staff found the following in regards to the procurement process:
	1. Bombardier does not purchase (new equipment and material) one off parts. NCTD orders parts that are not on the PM list.
	2. Refer to the hazardous material checklist for results.

Findings:1. NCTD organization chart needs to be updated to reflect current practices and positons accurately. The current SSPP shows Organization Chart has not yet been updated to reflect that Procurement is not under the General Counsel.
2. NCTD could not produce any past compliance officer inspection reports or Safety inspection reports related to oversight of procurement process as per Procurement and Contracts Administration Department Policies and Procedures Procurement Manual and NCTD SSPP.

Comments:1. NCTD should reference their current Procurement and Contracts Administration Department Policies and Procedures Procurement Manual version 19 dated May 27, 2015 in the procurement section of the SSPP (Section #21). Staff was not able to review this binder manual before the audit since it was provided to Staff on-site during the August 27, 2015 follow up meeting with NCTD personnel.
2. NCTD needs to clearly define in their SSPP the internal and external (contractors) overall procurement process. Staff was not able to get a clear understanding of the procurement process upon reviewing the SSPP Section# 21.
3. At the time of the Safety Review, Bombardier’s Site General Manager, was not aware that Bombardier Escondido Sprinter had a written procurement procedure. However, Bombardier’s Supervisor of Quality was aware that Bombardier Escondido Sprinter had and is following SOP-ESC-004 - Receiving Materials. Upon learning of the SOP, Bombardier’s Site General Manager revised SOP-ESC-004 - Receiving Materials to Revision 2.

Recommendations:1. NCTD should revise its SSPP organization chart to reflect current reporting structure.
2. NCTD should provide documentation for all QC testing as per their Procurement and Contracts Administration Department Policies and Procedures Procurement manual and provide documentation to CPUC upon request as per GO 143-B requirements.
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| 2015 CPUC SYSTEM SAFETY REVIEW CHECKLIST FORNORTH COUNTY TRANSIT DISTRICT (NCTD) |
| Checklist No. | 22 | Element | CPUC GO 172 – Personal Electronic Device Prohibitions/In-cab Cameras |
| Date of Audit | August 27, 20150900 - 2400 | Department(s) | Operations Department (LRV, Operation)MOW |
| Auditors/ Inspectors | Debbie DziadzioJoey Bigornia | Persons Contacted | Craig Bowerman, TransDevBrian Black, BombardierJames Unger, NCTDJason Dixon, NCTDCJ Gagner, HTSIEdwin Bailey, TASYGil Rodriguez, KablerTim Moorehead, NCTDMatt Ahumad, TASY |
| Reference Criteria |
| 1. CPUC General Order 172
2. NCTD System Safety Program Plan (SSPP) version 8 dated January 2014
 |
| Element/Characteristics and Method of Verification |
| **General Order (GO) 172 Personal Electronic Device Prohibitions/In-cab Cameras Compliance**Interview NCTD System Safety Department representatives and review appropriate documentation to determine the following: Part 1: In-Cab Cameras1. Verify in-cab cameras are installed on all light rail vehicles.
2. Which types vehicles have cameras, and if any exemptions for vehicles without cameras.
3. What inspection program exists for in-cab camera systems?
4. Are the cameras capable of continuous recordings for at least eight (8) continuous operational days?
5. Verify if in-cab camera recordings are being reviewed following reportable accidents and incidents and what is in the criteria?
6. Determine if a recording footage retention policy exists and how long footage is available for potential rule violations.

Part 2: Zero-Tolerance PolicyVerify a zero-tolerance policy for personal electronic device usage is implemented and employees who violate this policy are being disciplined.1. Verify if a zero-tolerance policy for personal electronic device usage is implemented and employees who violate this policy are being disciplined
2. Review NCTD’s SSPP, Operation Rules, and other guiding documentation which references or includes a ‘zero-tolerance policy’ towards PED usage exists.
3. Verify the Zero Tolerance Policy identifies disciplinary actions, steps up to and including discharge, and an appeals process for violators.
4. Determine if NCTD has records of GO172 violations on-file for the past 3 years.
5. Determine if NCTD has a training class requirement for employees to complete on PED usage.
6. Review employee records to determine if initial and refresher training is conducted for all required employees at least once every 2 years.
7. Verify NCTD’s PED training policy is administered to Train Operators, Controllers, and Wayside employees.
8. Review at-least 3 employee records from Train Operators, Controllers, and Wayside workers to verify the RTA to provide roll-call sign-in sheet for all PED policy courses occurring in the past 3 years. Select several required staff, preferably from differing job categories, and verify that training/retraining was completed.
9. Perform a field check to verify the PED Reminder Decal is installed on light rail vehicles.

Part 3: Monitoring and Enforcement1. Verify NCTD conducts periodic random monitoring (eg. video footage, etc.) inspections for GO 172 violations and records are documented.
2. Verify NCTD performs periodic operations evaluations and inspections and records are on file for at least 3 years.
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| Findings and Recommendations |
| Activities: PART 1* + - 1. Staff interviewed NCTD personnel and determined all light rail vehicles are equipped with in-cab cameras.
1. All LRV have cameras at both ends (2 internal cameras/cab…one forward facing, one focused on the operator) and are equipped with audio.
2. The in-cab cameras have a Maintenance and Inspection maintenance plan per NCTD Sprinter Camera System Maintenance/Operations Checks (version 3) which outlines daily and six week inspections. Staff reviewed Bombardier work orders related to maintenance and inspection of the video recording system.
3. In-cab analog is capable of continuous recording for 14 operational days.
	* + 1. 2. All accident/incident, near miss, and event investigation will include video as part of the investigative package that also includes event recordings. This is downloaded from the DVR hard drive onto a disc and kept with the investigative paperwork.
			2. 3. Camera footage is available for 14 days to enable rules compliance. If footage is downloaded onto a disc, that disc will be archived after a certain period of time, but can be made available at any time.

PART 2Staff reviewed Transdev and Bombardier PED policy and found them to be in compliance to GO 172. Staff reviewed compliance checklists regarding PED usage for both contractors. Staff verified that Herzog and TASI have a zero-tolerance policy for PED usage. With Kabler’s policy, although it states ‘zero-tolerance’ it was discussed with Staff that if an employee is caught utilizing a PED, they are given 3 days suspension. After 3 days suspension, they are required to retake the RWP class and receive a passing grade. They must also answer all PED questions correctly. When they return to work, they will give a job briefing to their peers and then will be put on a 6 month probation period. After passing the probation period, they are off probation and the clock starts again regarding violation of GO172 and PED usage.Staff reviewed NCTD’s SSPP, SCOR regarding zero-tolerance towards PED usage.Only Bombardier has a progressive discipline policy regarding PED usage violation.Per NCTD and its contractors, there has not been a violation of PED policy.Staff reviewed the training policies regarding PED for NCTD and its contractors.1. Staff reviewed training records for 6 Train Operators, 3 Dispatchers, and 4 MOW workers.
2. Staff verified NCTD’s PED policy is administered in training.
3. Staff reviewed sign-in sheets for PED policy training. See (a)

6. Staff inspected the insides of 8 LRV’s for PED Reminder decals.PART 3* + - 1. Staff reviewed random compliance checks regarding GO172 requirements from Transdev.
			2. Staff reviewed compliance checklists regarding PED usage from Bombardier, Transdev and Herzog (including TASI and Kabler). Staff reviewed Jan’14 – Dec’14.

Findings:1. NCTD and some of its contractors do not have a policy that includes discipline up to and including discharge. Bombardier has a progressive discipline policy and Kabler has a policy which is absolutely zero-tolerance, with no appeals process. Comments:None.Recommendations:1. NCTD should create ONE PED policy to govern its self and its contractors, that covers all aspects of GO 172; a policy to include discipline up to and including discharge and an appeals process.  |