
TRIENNIAL ON-SITE SAFETY AUDIT OF THE PORT OF LOS ANGELES WATERFRONT RED CAR LINE

RAIL TRANSIT SAFETY SECTION
RAIL TRANSIT AND CROSSING BRANCH
CONSUMER PROTECTION AND SAFETY DIVISION
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102

JUNE 4, 2007

FINAL REPORT



Richard W. Clark, Director
Consumer Protection and Safety Division

2007
TRIENNIAL ON-SITE SAFETY AUDIT OF
THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE
Rail Transit Safety Program

ACKNOWLEDGEMENT

The California Public Utilities Commission's Rail Transit Safety Section staff conducted this system safety program audit. Staff members directly responsible for conducting audit activities include:

Georgetta Gregory

Brian Yu

Susan Feyl, Lead Auditor

Joey E. Bigornia

Anton Garabetian

Noel Takahara

Steve Aintabli

Roger Clugston

Gerald Muffley

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1. EXECUTIVE SUMMARY

The Rail Transit Safety Section staff (Staff), assisted by the Railroad Operations Safety Branch and the Utility Safety Section staff of the California Public Utilities Commission's Consumer Protection and Safety Division conducted the second triennial, on-site, safety audit of the Port of Los Angeles Waterfront Red Car Line (POLA RCL) from February 26 to March 2, 2007. The audit was comprehensive in nature and addressed POLA RCL safety programs and practices in the design, construction, operation and maintenance of the system, as well as their security program. The Transportation Security Administration (TSA) personnel simultaneously conducted their own security program review. The on-site audit was preceded by a pre-audit conference with POLA RCL personnel, on Monday, February 26, 2007.¹ Audit activities began after the meeting. A post-audit conference, also attended by POLA RCL personnel, was held on Friday, March 2, 2007.

Staff audited four POLA RCL departments on thirteen separate subjects using specific criteria (checklists) and made eight recommendations and two suggestions. The audit results indicate that POLA RCL has been very diligent in following its own System Safety Program Plan (SSPP) to implement overall system safety. However, the audit results also identified areas where additional refinements could be made to further improve the POLA RCL safety program. The area of most concern was the improvement of documentation. The SSPP should be modified to reflect actual practice. POLA should remove the reference to amendments and 'Records of Change' page in Section 6.0 of the SSPP, since there is no 'Records of Change' page. POLA should also modify Section 10 of SSPP regarding the incident notification procedure to reflect that Port Police is notified first, then Herzog (See Checklist 1). POLA RCL should document the quarterly reviews of the Test & Observation Program (See Checklist 1). POLA RCL should also indicate the corrective action implementation plans that are carried from month to month on inspection forms (See Checklist 1). POLA RCL should conduct refresher Right of Way Safety training annually for emergency responders, or remove this requirement from the SSPP (See Checklist 10). As a suggestion, POLA RCL could add a line on the facility inspection form for the General Manager's signature and add a line to the daily inspection form indicating that a vehicle is not in service (See Checklist 4). Staff also field inspected three separate areas, track, overhead catenary system, and signal covered by checklists 11, 12, and 13 respectively. The track inspection cited tripping hazards including hoses in the toe path, a ballast pole in the toe path, a broken utility box cover, and side clearance hazards including switch No. 22 handle, which when extended is less than 3 inches from a fence post and a split point derail switch stand handle which is less than 3 inches from a chain link fence. The signal inspection found one signal out of alignment at First Street. The overhead catenary system inspection cited seven poles with loose guy wires: H1791, H1751, H1741, H1663, H1350, H1330, and H13210.

TSA's security checklist results are confidential to POLA RCL. They are not contained nor summarized in this document.

The Introduction of this report is stated in Section 2. The Background, with POLA RCL Rail System Description is in Section 3. Sections 4 and 5 respectively depict 2007 Audit Procedures and Findings, Recommendations, and Suggestions. The Acronyms are listed in Appendix A. POLA RCL 2007 Triennial Safety Audit Checklist Index, Recommendations List and the Checklists are respectively written in Appendices B, C, and D.

¹ Audit activities covering three checklists were conducted before the pre-audit conference.

2. INTRODUCTION

CPUC General Order 164-C, Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems, and the Federal Transit Administration's (FTA) Final Rule, Title 49 Code of Federal Regulations (CFR) Part 659 require Staff to perform triennial, on-site, safety audits of each transit agency. The purpose of these audits is to verify compliance with, and evaluate the effectiveness of, each rail transit agency's SSPP. POLA RCL was last audited in August 2004.

Staff informed the POLA RCL General Manager, that the on site triennial safety audit would be scheduled between February 26 and March 2, 2007. Staff provided him with ten checklists that would serve as the basis for the audit. Staff also informed him that Transportation Security Administration (TSA) personnel would be performing their own security audit on Thursday, March 1, 2007, and issuing a separate confidential report on their findings and recommendations.

A pre-audit meeting preceded the on-site audit with POLA RCL personnel on Monday, February 26, 2007. Railroad Operations and Safety Branch Staff performed signal, track and overhead catenary system inspections on February 22, 2007. On March 2, 2007, Staff held a post-audit meeting, also attended by POLA RCL personnel. At the post-audit meeting, Staff provided the POLA RCL representatives a verbal synopsis of the preliminary findings and recommendations from the thirteen checklists. Staff explained that a preliminary draft audit report would be prepared for POLA RCL to comment.

3. BACKGROUND

POLA RCL is a tourist oriented historic streetcar system. The system mimics the Pacific Electric Red Cars (PE Cars) of the 1920's era. The system utilizes one restored 1000 class PE Car and two replicated 500 class PE Cars. The POLA RCL came to life as a part of the Port of Los Angeles' San Pedro Waterfront Development Plan. The Port of Los Angeles solely funded the construction and operation cost. The system was built on existing freight track. The service between freight trains and POLA RCL is temporally separated – freight and passenger service hours do not overlap – according to Federal Railroad Administration (FRA) rules. Operations and maintenance of the system is contracted out to Herzog Transit Services (Herzog). POLA RCL began its revenue operation on July 19, 2003.

The POLA RCL General Manager has the overall management responsibility for all of the POLA RCL departments, including the authority and responsibility for System Safety. The General Manager also sets and executes the operational and maintenance budget. Herzog Transit Services (Herzog) is contracted to operate the system. The Manager of Streetcar Operations (MSO) has overall responsibility for operations. The MSO has overall system safety responsibilities. The General Manager oversees the system safety by having meetings with the MSO and reviewing/analyzing the safety critical reports that the MSO submits periodically. Herzog is contracted to maintain the vehicles and facilities. Mass Electric (ME) is contracted to maintain the OCS. Pacific Harbor Line (PHL) is contracted to maintain the signals and track. POLA RCL shares the track with PHL, a freight operator, temporally separated according to FRA rules. Herzog

and PHL have mutual agreement that, in an emergency, either of the two parties can perform track repairs. The MSO has overall responsibility on the system maintenance and contractor coordination.

POLA RCL System Description

POLA RCL rail system consists of 1.5 miles of track, three historic streetcars, four stations, and a maintenance facility. The system connects World Cruise Terminal, Downtown San Pedro, Ports O'Call Village, and a remote parking lot. Extension of this line to the nearby Cabrillo Beach is in the conceptual planning stage. Normal operating hours from Friday to Monday (weekend operation) are from 10 AM to 6 PM. The average weekend (4 days) ridership of the system is about 2,300 during the summer and 900 during the winter.

4. AUDIT PROCEDURE

Staff conducted the audit in accordance with its Rail Transit Safety Section Procedure No. 4, Procedure for Performing Triennial Safety Audits of Rail Transit Systems. In addition to the three field audit checklists, Staff developed ten checklists to evaluate the various departments with system safety and security responsibilities, using FTA and American Public Transportation Association (APTA) guidelines and the Staff's knowledge of the transit system. The list of the thirteen checklists is included in Appendix B. Staff inspection of three specialized areas including track, overhead catenary system, and signal system are covered by checklist 11, 12, and 13 respectively.

Each checklist identifies the safety-related elements and characteristics that Staff audited, POLA RCL reference documents that established the acceptance requirements, and the method that Staff used for evaluating compliance with the requirements. The methods used included:

- discussions with POLA RCL management
- reviews of procedures and records
- interviews with managers and supervisor
- observation of operations
- inspection of the system

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

5. FINDINGS, RECOMMENDATIONS, AND SUGGESTIONS

Staff audited four POLA RCL departments, management, operations, safety, and maintenance, on thirteen separate subjects using specific criteria (checklists) and made eight recommendations and two suggestions. The audit results indicate that POLA RCL has been very diligent in following its

own System Safety Program Plan (SSPP) to implement overall system safety. The results further indicate that POLA RCL has made significant progress between 2004 and 2007 in implementing the SSPP. Staff recorded the audited findings for each element/characteristic under the Results/Comments heading on each of the thirteen checklists. Appendices B, C, and D depict the POLA RCL 2007 Triennial Audit Checklist Index, Recommendation List, and Checklists respectively. Audit findings identified areas where additional changes should further improve POLA's system safety program. Those elements are addressed in 2007 checklists as follows.

Checklist 1, concerning management, has the most discrepancies. Two discrepancies involved changing the SSPP, including removing the reference to amendments and a 'Records of Change' page in Section 6.0, since there is no 'Records of Change' page and modifying section 10 of SSPP regarding the notification procedure for incidents to reflect that Port Police are notified first, then Herzog. Two discrepancies involve improving and refining the documentation for the quarterly reviews of the Test & Observation Program and clearly indicating corrective action items that are carried from month to month on inspection forms.

Checklist 4, covering vehicle maintenance, has two suggestions for improvement; adding a line on the facility inspection form for the General Manager's signature to show that the Manager of Streetcar Operation also reviewed the inspection findings and adding a line to the daily inspection form indicating that a vehicle is not in service to enhance documentation.

Checklist 10, concerning safety, has only one recommendation to make the SSPP conform to normal practice. POLA RCL should conduct refresher Right of Way Safety training annually for emergency responders, or remove this requirement from the SSPP.

Checklist 11, which explores the results of the track inspection for the entire POLA line, indicates both tripping and side clearance problems. The tripping hazards include hoses in the toe path, a ballast pole in the toe path, and a broken utility box cover. The side clearance hazards including switch No. 22 handle, which when extended is less than 3 inches from a fence post and a split point derail switch stand handle which is less than 3 inches from a chain link fence. These side clearances violate General Order 26D which requires a 3 foot clearance between a switch handle and an obstacle.

Checklist 12, which covers the results of the OCS inspection for the complete POLA line, recommends that seven guy wires of the OCS system, H1791, H1751, H1741, H1663, H1350, H1330, and H13210 should be tightened.

Checklist 13, which concerns the entire Signal system, indicates a signal alignment problem on the southwest gate of 1st Street.

Listed below, in outline form and in numerical order, are the audit checklists, including non-compliance conditions and recommendations, if any.

1. Authority and Responsibility for the System Safety Program

Staff found four deficiencies. Two discrepancies involved changing the SSPP, including removing the reference to amendments and a 'Records of Change' page in Section 6.0, since there is no 'Records of Change' page and modifying Section 10 regarding the notification procedure for incidents to reflect that Port Police are notified first, then Herzog. Other two discrepancies involved improving and refining the documentation for the quarterly reviews of the Test & Observation Program and clearly indicating corrective action items that are carried from month to month on inspection forms.

Recommendations:

POLA RCL should clearly document the quarterly reviews of the Test & Observation Program.

POLA RCL should remove the reference to amendments and a 'Records of Change' page in Section 6.0 of the SSPP, since there is no 'Records of Change' page.

POLA RCL should modify section 10 of SSPP regarding the notification procedure for incidents to reflect that Port Police are notified first, then Herzog.

POLA RCL should clearly indicate corrective action items that are carried from month to month on inspection forms.

2. Internal Safety Audit Process

Staff did not find any deficiencies and had no recommendations.

3. Accident and Safety Data Analysis

Staff did not find any deficiencies and had no recommendations.

4. Facilities and Maintenance Inspection

Staff had no recommendations.

Staff had two suggestions for improvement:

POLA RCL could add a line on the facility inspection form for the General Manager's signature to show that the Manager of Streetcar Operation also reviewed the inspection findings.

POLA RCL could add a line to the daily inspection form indicating that a vehicle is not in service.

5. Rules / Procedures, Training and Certification, Drug Review

Staff did not find any deficiencies and had no recommendations.

6. Hazard Identification and Hazardous Material Programs

Staff did not find any deficiencies and had no recommendations.

7. Configuration Management / System Modification Approval Process

Staff did not find any deficiencies and had no recommendations.

8. Employee and Contractor Safety Program

Staff did not find any deficiencies and had no recommendations.

9. Security

Staff did not find any deficiencies and had no recommendations.

10. Emergency Response Planning, Coordination, and Training

Staff found one deficiency; the SSPP does not reflect POLA RCL actual practice. The SSPP states that POLA will conduct refresher Right of Way Safety training annually for emergency responders.

Recommendation:

POLA RCL should conduct refresher Right of Way Safety training annually for emergency responders, or remove this requirement from the SSPP.

11. Track Inspection

Staff found deficiencies during track inspection for the entire POLA line including both tripping and side clearance problems.

Recommendation:

POLA RCL should correct tripping hazards including hoses in the toe path, a ballast pole in the toe path, and a broken utility box cover, and side clearance hazards including switch No. 22 handle, which when extended is less than 3 inches from a fence post and a split point derail switch stand handle which is less than 3 inches from a chain link fence. These side clearances violate General Order 26D which requires a 3 foot clearance between a switch handle and an obstacle.

12. GO 95 and GO 128 Inspections

Staff found deficiencies during the OCS inspection of the complete POLA line including seven loose guy wires.

Recommendation:

POLA RCL should tighten seven guy wires of the OCS system: H1791, H1751, H1741, H1663, H1350, H1330, and H13210.

13. Signal Inspection

Staff found one deficiency during the signal inspection of the entire POLA line, a signal alignment problem on the southwest gate of 1st Street.

Recommendation:

POLA RCL should correct the signal alignment problem on the southwest gate of 1st Street.

APPENDICES

- A. Acronyms List
- B. POLA RCL 2007 Triennial Safety Audit Checklist Index
- C. POLA RCL 2007 Triennial Safety Audit Recommendations List
- D. POLA RCL 2007 Triennial Safety Audit Checklists

Appendix A

Acronyms List

Acronym	Meaning
AIP	Accident Investigation Plan
APTA	American Public Transportation Association
CFR	Code of Federal Regulations
CPUC	California Public Utilities Commission
FRA	Federal Railroad Administration
FTA	Federal Transportation Administration
GRS	Global Rail Services
GO	General Order
HazMat	Hazardous Material
LAFD	Los Angeles Fire Department
LAPD	Los Angeles Police Department
ME	Mass Electric
MIS	Management Information System
MOW	Maintenance of Way
MSDS	Material Safety Data Sheet
MSO	Manager of Streetcar Operation
OCS	Overhead Contact System
OP	Operations
PD	Police Department
PE Cars	Pacific Electric Red Cars
PHL	Pacific Harbor Line
POLA	Port of Los Angeles
RCL	Waterfront Red Car Line
RTSS	Rail Transit Safety Section (of CPUC)
SOP	Standard Operating Procedure
SSPP	System Safety Program Plan
TSA	Transportation Security Administration

Appendix B

POLA RCL 2007 TRIENNIAL SAFETY AUDIT CHECKLIST INDEX

Checklist No.	Element/Characteristics
1	Authority and Responsibility for System Safety Program
2	Internal Safety Audit Process
3	Accident and Safety Data Analysis
4	Facilities and Maintenance Inspection
5	Rules / Procedures, Training and Certification, Drug Review
6	Hazard Identification and Hazardous Material Programs
7	Configuration Management / System Modification Approval Process
8	Employee and Contractor Safety Program
9	Security
10	Emergency Response Planning, Coordination, and Training
11	Track Inspection
12	GO 95 and 128 Inspection
13	Signal Inspection

Appendix C

POLA RCL 2007 TRIENNIAL SAFETY AUDIT RECOMMENDATION LIST

No.	Recommendations	Checklist No.
1	POLA RCL should document the quarterly reviews of the Test & Observation Program.	1
2	POLA RCL should remove the reference to amendments and a 'Records of Change' page in Section 6.0 of the SSPP.	1
3	POLA RCL should modify section 10 of SSPP regarding the notification procedure for incidents to reflect that Port Police are notified first, then Herzog.	1
4	POLA RCL should clearly document corrective action plan implementations that are carried from month to month on inspection forms.	1
5	POLA RCL should conduct refresher Right of Way Safety training annually for emergency responders, or remove this requirement from the SSPP.	10
6	POLA RCL should remove tripping and side clearance hazards.	11
7	POLA RCL should tighten seven guy wires of the OCS system.	12
8	POLA RCL should correct the signal alignment problem on the southwest gate of 1st Street	13

POLA RCL 2007 TRIENNIAL SAFETY AUDIT SUGGESTION LIST

No.	Suggestions	Checklist No.
1	POLA RCL could add a line on the facility inspection form for the General Manager's signature.	4
2	POLA RCL could add a line to the daily inspection form indicating when a vehicle is not in service.	4

Appendix D

POLA RCL 2007 TRIENNIAL SAFETY AUDIT CHECKLISTS

(1 THROUGH 13)

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	1	Persons Contacted
Date of Audit	2/26/2007	Kurt Arend - General Manager
Auditors	Georgetta Gregory Susan Feyl	Rafael Lopez-Medina – Manager of Streetcar Operation Ruben Montenegro – Manager & Facility Maintenance Peter Kane – Director, Safety & Compliance
Department	Management	

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Sections 1 through 6.

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

AUTHORITY FOR SYSTEM SAFETY PROGRAM PLAN

Interview POLA RCL General Manager to determine:

1. The source, frequency, and depth of safety and security information provided to the General Manager.
2. The method the General Manager uses to monitor the proper implementation of the SSPP.
3. If the Goals identified in the SSPP have been achieved.
4. If the Objectives identified in the SSPP have been accomplished.
5. If the Organization Chart correctly represents the current POLA RCL structure.
6. If the SSPP has been reviewed for revision during the last 1-year period.

FINDINGS AND RECOMMENDATIONS

Staff interviewed the General Manager and reviewed records.

Findings:

1. The General Manager receives all incident reports, near miss reports, and monthly reports that analyze statistical trends. POLA RCL generates an incident report when an incident occurs. POLA RCL does not have monthly security report. Every Sunday, during weekly meetings, POLA RCL personnel discuss Department of Homeland Security issues as documented on the 'Daily Order'.
2. POLA RCL contracts with Herzog to operate the trolley. Everyday POLA RCL's General Manager meets with the Manager of Streetcar Operations and Herzog personnel to discuss operations, system safety, maintenance, and expenditures.
3. POLA RCL achieved the goals identified in the SSPP by retraining an employee off work for two months and continues to operate accident free since the start of revenue service.

4. POLA RCL performs a Test & Observation Program, and reviews it quarterly. POLA RCL tests one or two train operators monthly on a rotating basis. The Test & Observation Program needs to be clearly documented.
5. POLA RCL SSPP contains an organization chart.
6. POLA RCL reviewed the SSPP last year. Staff noted discrepancies between the SSPP and normal practice. The SSPP references amendments and a 'Records of Change' page, when neither is utilized. The SSPP states that Herzog is notified first when an incident occurs, actually POLA RCL notifies the Port Police first, then Herzog.
7. POLA RCL states corrective action items on inspection forms in the month they are detected, but they are not noted again until resolved, which may be months later.

Recommendations:

1. POLA RCL should document the quarterly reviews of the Test & Observation Program.
2. POLA RCL should remove the reference to amendments and a 'Records of Change' page in Section 6.0 of the SSPP, since there is no 'Records of Change' page.
3. POLA RCL should modify section 10 of SSPP regarding the notification procedure for incidents to reflect that Port Police are notified first, then Herzog.
4. POLA RCL should clearly indicate corrective action items that are carried from month to month on inspection forms.

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	2	Persons Contacted
Date of Audit	2/28/2007	Rafael Mejia-Lopez, Manager of Streetcar Operation, Herzog Transit Services
Auditors	Noel Takahara Brian Yu	Peter Kane, Safety And Compliance Director, Herzog Transit Services
Department	Operations	Ruben Montenegro, Manager of Facility Maintenance, Herzog Transit Services

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Sections 9

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

INTERNAL SAFETY AUDIT PROCESS

Interview POLA RCL personnel to determine if during the last 3 years:

1. The Internal Safety Audit has been performed according to the SSPP.
2. The plans and schedules are in place to address the Internal Safety Audit recommendations.
3. A schedule has been developed which identifies when the 15 APTA elements will be reviewed within a 3-year process.
4. Internal Safety Audits have been properly documented and submitted to the CPUC on an annual basis prior to February 15th each year.

FINDINGS AND RECOMMENDATIONS

Staff interviewed POLA personnel and reviewed records.

Findings:

1. POLA RCL hired Global Rail Consulting Services to conduct Internal Safety Audit during the last 3 years.
2. Staff reviewed the POLA RCL Internal Safety Audit records and found the following:
 - In 2004, POLA conducted an Internal Safety Audit during 6/24 ~ 6/28/04 for the following elements: Facilities Inspection, Rules Review, Training and Certification Review, Safety Data Acquisition/Analysis, and Drug and Alcohol Abuse Program. The audit had 5 recommendations and corrective actions for all of the recommendations were implemented by 8/11/05.
 - In 2005, POLA conducted an Internal Safety Audit during 11/4 ~ 11/8/05 for the following elements: Maintenance Audits/Inspections, Emergency Response Planning, System Modification Review, Inter-departmental/Inter-agency Coordination, and Safety and

Security. The audit had 10 recommendations and corrective actions for all of the recommendations were implemented by 2/15/06.

- In 2006, POLA conducted an Internal Safety Audit during 7/27 ~ 8/1/06 for the following elements: Configuration Management, Employee Safety Program, Hazardous Materials Program, Contractor Safety Coordination, and Procurement. The audit had no recommendation.
3. POLA RCL has been using 15 Elements from American Public Transit Association's Guideline for their Internal Safety Audit criteria. Currently, POLA RCL is revising the Internal Safety Audit criteria to be consistent with the new 49 CFR Part 659 requirements of 21 Elements. POLA RCL is working in conjunction with the Global Rail Consulting Services to finalize new Internal Safety Audit Checklist for the next three years. Tentative schedule for the Internal Safety Audits will be June/July of each year.
 4. POLA RCL has properly documented and submitted their Internal Safety Audit Reports with corrective action status on an annual basis prior to 2/15 of each year.

Staff did not find any exceptions.

Recommendations:

None.

2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES WATERFRONT RED CAR LINE

Checklist No.	3	Persons Contacted
Date of Audit	March 1, 2007	Rafael Mejia-Lopez, Manager of Streetcar Operation, Herzog Transit Services
Auditors	Anton Garabetian	
Department	Safety	

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Sections 8, and 16
3. POLA RCL Accident/Incident Investigation Procedure

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

ACCIDENT AND SAFETY DATA ANALYSIS

Interview POLA RCL management to determine if since revenue service::

1. Whether monthly accident reports have been submitted to the CPUC.
2. Whether the reported accidents/Incidents, including near misses, are being investigated according to POLA RCL Accident Investigation Procedures.
3. Whether mitigation measures have been implemented to prevent a reoccurrence of an Accident/Incident in the future.
4. What type of safety data is acquired and analyzed.
5. How the results of the safety data analysis are used to prevent accidents.
6. Whether the Computerized Management Information System (MIS), specified in the SSPP, is accurate and current.

FINDINGS AND RECOMMENDATIONS

Findings:

Staff interviewed POLA RCL management and reviewed records. Since the start of revenue service, no accidents have occurred at POLA RCL.

1. Records indicate that POLA RCL submitted all the required monthly accident reports since revenue service inception.
2. No accident occurred on POLA RCL since revenue inception. POLA RCL records all near misses on Near Miss Report. Also, POLA RCL reports near misses to Los Angeles Port Police. Los Angeles Port Police, based on their authority, investigate the near misses.
3. POLA RCL, in cooperation with Los Angeles Port Police and Operation Life Saver, organized sting operation and Los Angeles Port Police issued citations to trespassers and vehicle violators. Accordingly, near misses are reduced 50% in 2004-2005 from the previous year and 25% in 2005-2006 from 2004-2005.

4. POLA RCL records all near misses on POLA RCL Near Misses Report. POLA RCL analyzes these reports and submits them to Los Angeles Port Police and Operation Life Savers.
5. POLA RCL, in cooperation with Los Angeles Port Police and Operation Life Saver, organize sting operation to cite trespassers and vehicle violators. Accordingly, near misses are reduced to 50% in 2004-2005 years from previous years and to 25% in 2005-2006 from 2004-2005 years.
6. Staff did not find Computerized Management Information System (MIS) in the SSPP. POLA RCL management stated that they omitted the MIS from SSPP because it was never utilized.

Recommendations:

None

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	4	Persons Contacted
Date of Audit	2-28-07	Rafael Lopez-Medina – Manager of Streetcar Operation
Auditors	Joey Bigornia	Ruben Montenegro – Manager & Facility Maintenance
Department	Maintenance	Peter Kane – Director, Safety & Compliance

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Sections 10 and 11.
3. POLA RCL Maintenance Schedule
4. POLA RCL Vehicle Maintenance SOP

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

FACILITIES AND MAINTENANCE INSPECTION

Review Facilities and Wayside track, signal and traction power Inspection records to determine if since revenue service:

1. POLA RCL has developed a formal facility inspection form.
2. The identified facilities and wayside equipment are routinely inspected and the resulting records are stored at POLA.
3. Future Facilities and Wayside inspections have been scheduled.

Interview the POLA RCL Maintenance Manager and review Maintenance records to determine if:

1. Vehicle maintenance inspections have been performed according to the RCL Maintenance Schedule and stored at POLA.
2. Three problems, chosen at random, identified during the vehicle maintenance inspections, have been addressed in a timely manner and properly documented.

FINDINGS AND RECOMMENDATIONS

Findings:

A. Facilities

1. POLA RCL has identified inspection tasks for station lighting and the station platform at all stations.
2. POLA RCL performs facility inspection on a monthly basis and keeps records on-file at POLA RCL offices.
3. Staff reviewed facility Inspection forms dated June 2005 to December 2006. POLA performed all inspections on a monthly inspection interval except for February 2006.
4. POLA RCL properly documented inspections and closed out corrective actions in a timely manner.

5. POLA RCL inspection forms identified the name of the inspector. However; Staff suggests the inspection form be revised with a signature line to show that the Manager of Streetcar Operation also reviewed the inspection findings.

B. Wayside

1. POLA inspects Wayside equipment: signal, switch, track, overhead contact system, and traction power substation.
2. The Pacific Harbor Line (PHL) performs signal inspections and keeps copies of the Signal Inspection records on-file at Herzog's office.
 - a. Signal inspections are required by 49CFR Part 234.
 - b. Staff reviewed records dated 2004 – 2006 for 1st Street, 5th Street and 6th Street.
 - c. PHL performed inspections at the required maintenance interval and corrective actions were made by POLA RCL in a timely manner and properly documented.
 - d. No exceptions were noted.
3. Balfour Beatty Rail, Inc. (BBR) performs switch inspections and keeps copies of the Switch Inspection records on-file at Herzog's office.
 - a. Switch Inspections are required by 49CFR Part 213.
 - b. Staff reviewed records for Switch Nos. S23, S24, and S25 dated January 2005 – December 2006.
 - c. BBR performed inspections at the required maintenance interval and corrective actions were made by POLA RCL in a timely manner and properly documented.
 - d. No exceptions were noted
4. BBR performs track inspections and keeps copies of the Track Inspection records on-file at Herzog's office
 - a. Track Inspections are required by 49CFR Part 213.
 - b. Track Inspection records are also independently reviewed by the Federal Railroad Administration. FRA Chief Inspector Alisa Paton recently reviewed POLA's track inspection records in 2006.
 - c. Staff reviewed records for the POLA Line dated November 2006 – January 2007.
 - d. BBR performed inspections at the required maintenance interval and corrective actions were made by POLA RCL in a timely manner and properly documented.
 - e. No exceptions were noted.
5. Mass Electric performs overhead Contact System (OCS) inspections and keeps copies of the OCS Inspection records are kept on-file at Herzog's office.
 - a. Mass Electric performed OCS inspections quarterly, yearly, and biennially.
 - b. Staff reviewed OCS Inspection records dated January 2006 – January 2007.
 - c. Mass Electric performed inspections at the required maintenance interval and corrective actions were made by POLA RCL in a timely manner and properly documented.

- d. No exceptions were noted.
- 6. Mass Electric performs traction power substation inspections and keeps copies of the Substation Inspection records on-file at Herzog's office.
 - a. There is only one substation on the POLA RCL line.
 - b. Mass Electric performed traction power substation inspections monthly, quarterly, semi-annually, and annually.
 - c. Staff reviewed Substation Inspection records dated January 2006 – January 2007.
 - d. Mass Electric performed inspections at the required maintenance interval and corrective actions were made by POLA RCL in a timely manner and properly documented.
 - e. No exceptions were noted.

C. Vehicle

- 1. POLA RCL fleet consists of three cars: No. 500, 501 and 1058
- 2. POLA RCL primarily uses Car Nos. 500 and 501 for revenue service on Friday to Monday.
- 3. POLA RCL uses Car No. 1058 as a spare train if either Car No 500 or 501 undergoes long-term inspection such as the annual inspection.
- 4. Staff reviewed Vehicle inspection (daily) records for Car No 501 and 1058 dated January 2006 – December 2006. POLA RCL inspected vehicles at the required maintenance interval and POLA RCL repaired any defects found in a timely manner.
- 5. Staff reviewed Vehicle Inspection (30-day, quarterly, and 6-month) records for Car No. 500, 501 and 1058 dated January 2006 – December 2006. POLA RCL inspected vehicles at the required maintenance interval and POLA RCL repaired any defects found in a timely manner.
- 6. POLA performed the Annual Inspections in a staggered fashion since two-cars are always required for revenue service.
 - a. Car no. 500 was performed on October 3 – November 3, 2006.
 - b. Car no. 501 was performed on July 1 – July 31, 2006.
 - c. Car no. 1058 was performed on June 1 – June 13, 2006.
- 7. Staff selected three problems for review to determine if the corrective action occurred within a timely manner.
 - a. Car no 501, Weekly Report dated 11-2-06: B.P. Duplex Gauge #2 and Brake Shoe #3
 - b. Car no. 501, Repair Order dated 4-11-06: Installation of roller bearing
 - c. Car no. 1058, Weekly Report dated 7-18-06: Installation of New Speedometer on Unit #2
 - d. POLA RCL noted all three problems on the inspection forms and POLA RCL repaired the problems on the same day the problem was found.
 - e. In general, POLA RCL does not have a list of open or deferred maintenance items. No exceptions were noted.

Suggestions:

Staff suggests the facility inspection form be revised with a signature line to show that the Manager of Streetcar Operation reviewed the inspection findings and that a line be added to the daily inspection form indicating when a vehicle is not in service.

Recommendation:

None.

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	5	Persons Contacted
Date of Audit	2/26/2007	Rafael Mejia-Lopez, Manager of Streetcar Operation, Herzog Transit Services
Auditors	Brian Yu	Peter Kane, Safety And Compliance Director, Herzog Transit Services
Department	Operations	Ruben Montenegro, Manager of Facility Maintenance, Herzog Transit Services

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Sections 12, 13 and 21.
3. POLA RCL Rulebook
4. Herzog Program of Operational Tests and Inspections
5. Herzog 49 CFR Part 240 Qualification and Certification of Locomotive Engineers
6. Herzog Drug and Alcohol Testing Policy

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

RULES / PROCEDURES, TRAINING AND CERTIFICATION, DRUG TEST REVIEW

Interview the POLA RCL Manager of Streetcar Operations to determine if:

1. Rules and Procedures were reviewed for revision during the past 12 months.
2. Written Exams, Field Observations, and Audits were conducted, during the past 12 months, to monitor employees' conformance to the rules and procedures.
3. Records of each employee's training and certification have been evaluated during the past 12 months and that POLA RCL management is aware of each employee's need for "refresher" training and certification renewal.
4. POLA RCL has developed a re-training, new training, and certification renewal schedules for their employees.
5. All of the Herzog employees have been trained on the Herzog's Drug and Alcohol Abuse Program.

FINDINGS AND RECOMMENDATIONS

Findings

1. The Manager of Streetcar Operations (MSO) is constantly reviewing POLA RCL Procedures and Daily Orders. MSO made most revisions to Daily Orders and General Orders. After each revision, MSO files the revised procedures to CPUC Representative. Staff did not find any exception.
2. Staff reviewed the following employee evaluation records for operators and conductors:
 - Operator Engineer Performance Evaluation

- POLA RCL Operator & Mechanic Blue Signal Procedure Evaluation
- POLA RCL Rules Testing

Staff did not find any exception.

3. Staff reviewed the following employee training and certification records for operators and conductors:

- POLA RCL Operator & Attendant Training Program – Series of Quizzes and Final Exam
- POLA RCL Engineer's Physical Characteristics Exam

POLA RCL renewed the employee's certification after each Performance Evaluation,. POLA RCL Rules Testing (Annual, 55 Questions) serves as Training Evaluation.

Staff did not find any exception.

4. POLA RCL is conducting Test and Evaluations each year per Federal Railroad Administration's requirement.

POLA RCL is currently undergoing Operating Rules revision. Once the new rules become effective, MSO will conduct a refresher training of the new rules. Subsequently, POLA RCL will bring in a consultant to conduct the Performance Evaluation to all of the employees.

Staff did not find any exception.

5. POLA RCL employees were given Herzog Transit Services' Drug and Alcohol Abuse Program and Policy. Each employee has to acknowledge the requirements and sign the policy card that goes into employee's file prior to employment.

The MSO enforces "zero tolerance" policy which even disallows the use of prescriptions drugs during operating hours.

Staff did not find any exception.

Recommendation

None

2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES WATERFRONT RED CAR LINE

Checklist No.	6	Persons Contacted
Date of Audit	2/27/07	Rafael Mejia-Lopez, Manager of Streetcar Operation, Herzog Transit Services
Auditors	Brian Yu	Peter Kane, Safety And Compliance Director, Herzog Transit Services
Department	Operations, Management	Ruben Montenegro, Manager of Facility Maintenance, Herzog Transit Services

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Sections 7, and 20
3. POLA RCL Operating SOP OP-001 Material Safety Data Sheet (MSDS)
4. POLA RCL Operating SOP OP-003 (HazMat)
5. POLA Accident./ Incident Investigation Procedure

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

HAZARD IDENTIFICATION/RESOLUTION PROCESS

Interview POLA RCA personnel to determine if since start of revenue service:

1. There are records for accidents/incidents being reported, including near misses.
2. There are measures in place to prevent accidents/incidents in the future.

HAZARDOUS MATERIAL PROGRAMS

Interview POLA RCL personnel to determine if since start of revenue service:

1. A list of hazardous materials used or stored in the system has been developed.
2. Hazardous materials are being monitored by periodic inspections and status reports.
3. A file exists which contains a complete and accurate Material Safety Data Sheet (MSDS) for each hazardous chemical used in the workplace.
4. MSDS files are in conformance with SOP OP-001 by reviewing at least 2 MSDS records.
5. There has been a Hazardous Material Incident reported during the past 12 months and verify if handling of the incident was in conformance with the SOP OP-003 by reviewing at least 1 record (if any).

FINDINGS AND RECOMMENDATIONS

Findings:

1. POLA RCL did not have any accidents in the past. Near misses are reported and filed with MSO. POLA RCL near miss reporting threshold is very stringent. It requires operators and conductors to report "anything" that is out of ordinary – trespassing, signs of trespassing, vehicles driving around gates even when trains are not in motion, etc.

Staff did not find any exception.

2. POLA RCL conducts the following to prevent future accident/incidents:

- POLA RCL rotates the duties of operators and conductors to prevent “boredom” that may contribute to an accident by “skipping” important procedures.
- MSO conducts frequent “unannounced” performance evaluations.
- POLA RCL has moved 5 mph speed limit line further upstream at 5th Street Grade Crossing to allow train operators more time to reduce the train speed.

Staff did not find any exception.

3. POLA RCL has developed a list of Hazardous Materials and is in use: POLA RCL MSDS Index.

Staff did not find any exception.

4. POLA RCL monitors Hazardous Materials by monthly inspections and keeps the inspection reports on file at MSO’s office. The inspections utilize the Port of Los Angeles Facilities Inspection Checklist, especially parts B (Fire Safety), D (Chemical Safety), E (Compressed Gases), and G (Hazardous Waste).

Staff did not find any exception.

5. POLA RCL MSDS INDEX File is in place and the file has 121 items identified. For each identified items, manufacturer’s MSDS is in file.

Staff did not find any exception.

6. Staff reviewed the following, randomly selected, MSDS from the file and did not find any exception:

- Delstar Acrylic Enamel, PPG Industries, Inc., Pages 127-135
- Lead Acid Battery, Johnson Controls, Pages 245-248
- TAP Magic Aluminum Cutting Fluid, The Steco Corporation, Pages 547-549

7. POLA RCL did not have any Hazardous Material Incidents in the past.

Recommendations:

None

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	7	Persons Contacted
Date of Audit	2-28-07	Rafael Mejia-Lopez, Manager of Streetcar Operation, Herzog Transit Services
Auditors	Joey Bigornia	
Department	Management	

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Sections 15 and 18
3. POLA RCL Operating SOP OP-002 (Configuration Management)

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

CONFIGURATION MANAGEMENT SYSTEM MODIFICATION/APPROVAL PROCESS

Interview POLA RCL personnel to determine if:

1. There have been any changes made to the system (vehicles, facilities, or property) since revenue service.
2. The changes or improvements were reviewed, approved, and filed following the process outlined in SOP OP-002.
3. Plans, As Built, and Specifications records are permanently maintained at POLA.

FINDINGS AND RECOMMENDATIONS

Findings:

1. POLA RCL only changed the vehicle roller axle bearings since revenue service began.
2. Staff reviewed the Change Proposal document for the changing of all existing Axle Bearings to Roller Axle Bearing at Herzog's offices. The Change Proposal was initiated in September 3, 2003 and completed February 15, 2005.
3. The Change Proposal document contained the necessary descriptions and followed the process required by SOP OP-002.
4. The Final Plans, as built, and specification records are permanently maintained at Herzog's offices.

Recommendation:

None.

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	8	Persons Contacted
Date of Audit	March 1, 2007	Rafael Mejia-Lopez, Manager of Streetcar Operation, Herzog Transit Services
Auditors	Anton Garabetian	
Department	Safety	

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Sections 19 and 22

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

EMPLOYEE AND CONTRACTOR SAFETY PROGRAM

Interview the POLA RCL Manager of Streetcar Operations to determine if since start of revenue service:

1. An appropriate procedure and reporting form has been developed and periodically distributed to all employees to report safety hazards in the work place.
2. There were any employee safety hazards reported during the past 12 months.
3. POLA RCL management implemented corrective actions on reported employee safety hazards.
4. The contractors were trained before working on the POLA RCL system by reviewing the Contractor Safety Training records.

FINDINGS AND RECOMMENDATIONS

Findings:

Staff interviewed the POLA RCL Manager of Streetcar Operations and reviewed records:

1. Since the start of revenue service, POLA RCL used daily orders to publish safety rules, procedures and safety hazards in the work place. POLA RCL communicated these safety rules, procedures and safety hazards at work place to employees through "Talk to All" forms. Employees, who read the rules, signed the form that they were briefed.
2. There were no employee safety hazards reported during the past 12 months.
3. POLA RCL management did not implement any corrective actions because there was no hazard that occurred to the employees.
4. All contractors were safety trained before working on the POLA RCL system. After the training, POLA RCL tested the contractors for safety rules.

Recommendations:

None

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	9	Persons Contacted
Date of Audit	3/1/07	Rafael Mejia-Lopez, Manager of Streetcar Operation, Herzog Transit Services
Auditors	S. Feyl	
Department	Security	

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Section 24
3. Los Angeles Port Police Waterfront Red Car Line System Security Plan
4. POLA RCL Emergency Responders Training Bulletin

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

SECURITY

Interview POLA RCL security personnel to determine if for last 3 years:

1. System Security assessment has been conducted to identify potential terrorist targets.
2. There are counter terrorism security measures currently in place.
3. Crime Reports have been generated, reviewed and assessed periodically.
4. The crime reports and the results of security assessment are distributed to POLA RCL management.

FINDINGS AND RECOMMENDATIONS

Staff interviewed security personnel.

Findings

1. A System Security assessment has not been performed for POLA, but it has been performed for the Port of Los Angeles, which includes POLA. The assessment was performed through the coordination of a number of agencies; the Federal Bureau of Investigation, TSA, Port Police, and the Los Angeles Police Department.
2. There are counter terrorism measures in place for the Port of Los Angeles but not directly for POLA.
3. Crime reports have been generated, reviewed and assessed by the Port Police for the port.
4. Crime reports and security assessments have been performed by the Port Police for the Port of Los Angeles, but POLA has not seen them.

Recommendations

None.

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	10	Persons Contacted
Date of Audit	03/01/07	Rafael Mejia-Lopez, Manager of Streetcar Operation, Herzog Transit Services
Auditors	Anton Garabetian	
Department	Safety	

REFERENCE CRITERIA

1. CPUC General Order 164-C
2. Port of Los Angeles (POLA) Waterfront Red Car Line (RCL) System Safety Program Plan Section 14
3. POLA RCL Emergency Responders Training Bulletin

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

EMERGENCY RESPONSE PLANNING, COORDINATION, TRAINING

Interview POLA RCL personnel to determine if since start of revenue service:

1. Emergency Drills involving external agencies have been performed.
2. The drills were evaluated and any recommendations found were incorporated into the Emergency Responders Training Bulletin.
3. Emergency responders have received the required Right of Way Safety training.
4. Plans and schedules for future Emergency Drills (full scale and table top) have been established.

FINDINGS AND RECOMMENDATIONS

Findings:

Staff interviewed POLA RCL management and reviewed records:

1. In 2005 POLA performed an Emergency Response Drill at 6th Street. Los Angeles Port Police, Los Angeles Fire Department, Federal Railroad Administration and CPUC Staff participated in this drill. POLA RCL SSPP states that the emergency drills are performed every two years. Thus, POLA RCL has scheduled a tabletop drill at the end of 2007. POLA RCL SSPP Section 14 states that Herzog will conduct refresher training at least annually with Port Police and LAFD. POLA RCL management stated that they have not been conducting the refresher course for Port Police and LAFD. They have been relying on the full scale emergency drills conducted every two years because, based on their experience, they do not feel the need to conduct refresher course.
2. After the 2005 emergency response drill, POLA RCL issued new Standard Operating Procedures.
3. Emergency responders have not been receiving the required Right of Way Safety training every year as stated in the SSPP.

4. POLA RCL plans to conduct a tabletop exercise by the end of 2007.

Recommendations:

POLA RCL should conduct refresher Right of Way Safety training annually for emergency responders, or remove this requirement from the SSPP..

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	11	Persons Contacted
Date of Audit	2/22/07	Hirsch, Pacific Railway Signal Engineer
Auditors	Roger Clugston Susan Feyl	Rick McIntosh, Herzog Transit Services Engineer Bill Sanford, Belfour Beatty
Department	Track Inspection	Jessie Marquiz, Belfour Beatty Sean Zor, MEC Port

REFERENCE CRITERIA

1. CPUC General Order 118
2. CPUC General Order 26-D
3. CFR Title 49
4. FRA, Part 213, Track Safety Standards

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Inspect the POLA RCL track by utilizing the services of a CPUC FRA certified track inspector.

FINDINGS AND RECOMMENDATIONS

Staff inspected the entire POLA line.

Findings:

1. The track is in FRA compliance. Staff did not find any FRA safety standards defects.
2. Staff identified tripping hazards including hoses in the toe path area along the main track, a ballast pole in the toe path, and a broken utility box cover and partially removed blacktop from a crossing.
3. Staff identified side clearance hazards including switch No. 22 handle, which when extended is less than 3 inches from a fence post and a split point derail switch stand handle which is less than 3 inches from a chain link fence. These side clearances violate General Order 26D which requires a 3 foot clearance between a switch handle and an obstacle.

Recommendations:

1. POLA RCL should correct tripping and side clearance hazards.

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	12	Persons Contacted
Date of Audit	2/22/07	Hirsch, Pacific Railway Signal Engineer
Auditors	Steve Aintabli Susan Feyl	Rick McIntosh, Herzog Transit Services Engineer Bill Sanford, Belfour Beatty
Department	OCS Inspection	Jessie Marquiz, Belfour Beatty Sean Zor, MEC Port

REFERENCE CRITERIA

1. CPUC General Order 95
2. CPUC General Order 128

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Inspect the entire POLA Overhead Catenary System (OCS) for General Orders 95 and 128 violations including loose guy wires.

FINDINGS AND RECOMMENDATIONS

Staff inspected the entire POLA OCS.

Findings:

Seven poles had loose guy wires including H1791, H1751, H1741, H1663, H1350, H1330, and H13210.

Recommendations:

POLA RCL should tighten seven guy wires of the OCS system

**2007 CPUC SYSTEM SAFETY AUDIT CHECKLIST FOR THE PORT OF LOS ANGELES
WATERFRONT RED CAR LINE**

Checklist No.	13	Persons Contacted
Date of Audit	2/22/07	Hirsch, Pacific Railway Signal Engineer
Auditors	Gerald Muffley Susan Feyl	Rick McIntosh, Herzog Transit Services Engineer Bill Sanford, Belfour Beatty
Department	Signal Inspection	Jessie Marquiz, Belfour Beatty, Signal Inspector Sean Zor, MEC Port

REFERENCE CRITERIA

1. CPUC General Order 118
2. CPUC General Order 26-D
3. CFR Title 49
4. FRA, Part 234, Signal Safety Standards

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Utilizing the services of a CPUC FRA certified signal inspector, perform a detailed visual inspection and operational check of the entire line, including 6th Street, 5th Street, and 1st Street and switches S24 and S23.

FINDINGS AND RECOMMENDATIONS

Staff inspected the entire POLA RCL line.

Findings:

1. Staff found no defects at 6th Street.
2. Staff found no defects at 5th Street.
3. Staff found no defects at 1st Street. One light on the South-West gate was out of alignment.
4. Staff tested Switch S24 and S23 and the switch point indicators were working.

Recommendations:

POLA RCL should correct the alignment problem on the South-West gate of 1st Street