
2016

TRIENNIAL SAFETY REVIEW OF THE J. PAUL GETTY CENTER TRAM (GETTY)

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CALIFORNIA PUBLIC UTILITIES COMMISSION
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2016 TRIENNIAL ON-SITE SAFETY REVIEW OF THE J. PAUL GETTY CENTER TRAM (GETTY)

ACKNOWLEDGEMENT

The Rail Transit Safety Branch staff of the California Public Utilities Commission conducted this system safety programs review. Staff members directly responsible for conducting safety review and inspection activities include:

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1. EXECUTIVE SUMMARY

The California Public Utilities Commission's (Commission) Rail Transit Safety Branch staff (staff) of the Safety and Enforcement Division (SED) conducted an on-site safety review of the J. Paul Getty Trust (Getty) system safety program in December 2016.

The on-site review was preceded by an opening conference with Getty personnel on December 5, 2016. Staff conducted the 2016 Getty on-site safety review from December 5 through December 8, 2016. The main purpose of the safety review is to verify compliance and evaluate the effectiveness of the Getty System Safety Program Plan (SSPP).

Staff held a post-review conference with Getty personnel on January 12, 2017 and provided Getty a synopsis of the preliminary review findings and recommendations for corrective actions.

The review results indicate that the Getty has a comprehensive System Safety Program Plan (SSPP) and is effectively carrying out that plan. However, staff noted exceptions during the review which are described in the Findings and Recommendations section of applicable checklists. Staff issued 4 recommendations for corrective action from the 25 checklists.

The Introduction and Background Sections of this report are presented in Sections 2 and 3 respectively. The Background Section contains a description of Getty's system. Section 4 describes the review procedure, and Section 5 provides the review findings and recommendations. The 2016 Getty Triennial Safety Review Acronyms List is found in Appendix A, Checklist Index in Appendix B, Recommendations List in Appendix C, and review Checklists in Appendix D.

2. INTRODUCTION

The Commission General Order (GO) 164-D, *Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems*, and the Federal Transit Administration (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 at a minimum of 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 first on-site safety review of the Getty Center Tram.

On November 04, 2016, staff mailed a letter to the Getty Trust Chief Operating Officer (COO), advising that the Commission's safety review had been scheduled for December, 2016. The letter included 25 checklists that served as the basis for the review. Three of the 25 checklists outlined inspection of guideway and vehicles. The remaining 22 checklists focused on assessing the effective implementation of the Getty SSPP and verifying compliance through records reviews and interviews.

Regarding security, due to the nature of the system the triennial review checklists were modified to incorporate those matters within an existing but applicable checklist (Checklist 18). No findings relating to security matters were identified. No separate triennial security review of Getty will be conducted.

Staff conducted the on-site safety inspections and records review during December 5, 2016 – December 8, 2016. At the conclusion of each review activity staff provided Getty personnel with a verbal summary of the preliminary findings and discussed preliminary recommendations for corrective actions.

On January 12, 2016, staff conducted a post-review exit meeting with Getty management and personnel. Staff provided the attendees a synopsis of the non-compliant findings from the 25 checklists and discussed the need for corrective actions where applicable.

3. BACKGROUND

The Getty Center Tram is an Otis Hovair automated people mover in the city of Los Angeles serving the J. Paul Getty Center. The Getty Tram was opened at the end of 1997, following the inauguration of "The Getty". It is an electric, cable-driven hovertrain, with 2 consists of 3 cars each. When both three-car trains are operating, it has the capability of transporting 1,200 passengers per hour in each direction.

The line, located north of Brentwood, in the Westside Region of Los Angeles, links a freeway-level parking garage to the Getty Center, located on a hilltop three-quarters of a mile away.

The lower station at the bottom of the hill lies beside Sepulveda Boulevard and the San Diego Freeway. The upper station at the top of the hill is located in the arrival plaza of "The Getty" and is part of the structure. The line follows the "Getty Center Drive" and has a by-pass section mid-route.

Unlike most train cars, which are wheeled vehicles, the Getty Tram is suspended by a cushion of air. When the air suspension system is deactivated, the vehicle rests on a series of skids which also serve as a part of the emergency braking system.

Although the Getty Tram started operating in 1997, it wasn't until 2013 that the Commission asserted jurisdiction for safety oversight of the system following an evaluation of unregulated rail fixed guideway systems throughout the state of CA. Currently the rail transit safety branch (RTSB) regulates Getty as a rail transit agency (RTA) operating an automated people mover system and oversees Getty safety matters in accordance with GO-164-D requirements. Staff worked with Getty personnel to develop the initial Getty SSPP and full implementation of the SSPP commenced in January 2015.

4. SAFETY REVIEW PROCEDURE

Staff conducted the review in accordance with the Rail Transit Safety Section Procedure RTSS-4, *Procedure for Performing Triennial Safety Audits of Rail Transit Systems*. Staff developed twenty-five (25) checklists to cover various aspects of system safety responsibilities based on Commission requirements, the Getty SSPP, safety related Getty documents, and general staff knowledge of the Getty Tram system. The 25 checklists are included in Appendix D.

Each checklist identifies safety-related elements and characteristics that staff reviewed or inspected. The checklist reference criteria section is comprised of regulatory requirements, Getty tram related rules and procedures, and other documents that establish the safety program requirements. The completed checklists include review findings and recommendations as well if the review findings indicate non-compliance. The completed checklists may include comments and suggestions to improve Getty's system safety program. The methods used to perform the review include:

- Discussions with Getty management
- Reviews of procedures and records
- Observations of operations and maintenance activities
- Interviews with rank and file employees
- 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 the Getty Tram system has a comprehensive SSPP and is effectively implementing the plan. Overall, the review results indicate that Getty is in general compliance with its SSPP.

However, Staff has identified areas where changes should be made to further improve system safety. Review findings identify areas where changes should be made for further improvement. The review results are derived from activities observed, documents reviewed, issues discussed with management, and inspections. The review identifies 4 recommendations from the 25 checklists outlined below:

1. Policy Statement and Authority for SSPP

No findings of non-compliance; no recommendations.

2. Goals and Objectives

No findings of non-compliance; no recommendations.

3. Overview of Management Structures

No findings of non-compliance; no recommendations.

4. SSPP Control and Update Procedures

No findings of non-compliance; no recommendations.

5. SSPP Implementation Activities and Responsibilities

No findings of non-compliance; no recommendations.

6. Hazard Management Process

No findings of non-compliance; no recommendations.

7/8. System Modification

No findings of non-compliance; no recommendations.

9. Safety Data Collection and Analysis

No findings of non-compliance; no recommendations.

10. Accident/Incident Reporting and Investigations

No findings of non-compliance; no recommendations.

11. Emergency Management Program

No findings of non-compliance; no recommendations.

12. Internal Safety Audits

No findings of non-compliance; no recommendations.

13. Rules Compliance: Operating Rules and Maintenance Procedures Manual and Operations Bulletin Revisions

No findings of non-compliance; no recommendations.

14. Facilities and Equipment Inspections

Findings:

1. Staff noted the transformer room at the North location is being used for storage of material. This material is blocking access lanes to the equipment preventing easy access in case of an emergency.
2. Staff noted the extinguisher is not properly mounted in the room.
3. Staff noted the fire extinguisher monthly inspection tags at all locations are not being signed acknowledging the extinguishers are being inspected.

Recommendations:

1. Getty should remove all stored material within the Transformer Room to eliminate any hazard that the stored material may cause during inspections and or emergencies. 29 CFR 1910.303 (g) (1).
2. Getty should perform monthly inspections of all fire extinguishers and have fire extinguishers mounted to a fixed location. 29 CFR 1910.157(e) (2) and 29 CFR 1910.157 (c) (1)

15-A. Maintenance Audits and Inspections – S8000 Vehicle Inspections

No findings of non-compliance; no recommendations.

15-B. Maintenance Audits and Inspections: S5000 Guideway Inspection

No findings of non-compliance; no recommendations.

15-C. Maintenance Audits and Inspections –S4000 Equipment in Turning Sheave, S6000 Equipment in Tension Pit

No findings of non-compliance; no recommendations.

16. Training and Certification Programs: Otis Elevator Maintenance and Operations Employees

Findings:

1. Staff noted there is no PED training for OTIS personnel (G.O. 172 Section 5.3).

Recommendations:

1. Getty should determine if PED training is a requirement on the guideway for Otis.

17. Configuration Management and Control

No findings of non-compliance; no recommendations.

18-A. Local, State, and Federal Requirements: Employee Safety Program

No findings of non-compliance; no recommendations.

18-B. Local, State, and Federal Requirements: Employee Security Program

No findings of non-compliance; no recommendations.

19. Hazardous Materials Programs

No findings of non-compliance; no recommendations.

20. Drug and Alcohol Program

No findings of non-compliance; no recommendations.

21. Procurement Process

No findings of non-compliance; no recommendations..

22. CPUC GO 172 – Personal Electronic Device Prohibitions/In-cab Cameras

No findings of non-compliance; no recommendations.

23. CPUC GO 175 – Rules and Regulations Governing Roadway Worker Protection Provided by Rail Transit Agencies and Fixed Guideway Systems

Findings:

1. Staff has found that the Getty has a Worker Guideway Protection Program and Lockout/Tag-out Procedure. Although the program may not meet the specific requirements of GO-175, the Getty program appears to provide an equivalent level of safety required by GO-175 in light of the fact that the Getty tram does not have an operator/driver on-board the vehicle.

Recommendations:

1. The Getty should submit its Worker Guideway Protection Program to the CPUC for review.

APPENDICES

- A. Acronym List
- B. Getty 2016 Triennial Safety Review Checklist Index
- C. Getty 2016 Triennial Safety Review Recommendations List
- D. Getty 2016 Triennial Safety Review Checklists

APPENDIX A Acronym List

Acronym	Definition	Acronym	Definition
APM	Automated People Mover	NBIS	NBIS National Bridge Inspection Standards
CAP	Corrective Action Plan	NFPA	National Fire Protection Association
CFR	Code of Federal Regulations	OSHA	Occupational Safety and Health Administration
Commission/ CPUC	California Public Utilities Commission	PED	Personal Electronic Device
EPA	Environmental Protection Agency	PMI	Preventive Maintenance Inspection
ETS	Emergency Trip Station	P.O.	Purchase Order
FTA	Federal Transit Administration	RWP	Roadway Worker Protection
GO	General Order	SDS	Safety Data Sheet
IIPP	Injury and Illness Prevention Program	SOP	Standard Operating Procedure
ISA	Internal Safety Audit	SSPP	System Safety Program Plan
LOTO	Lock-Out Tag-Out	Staff	Safety and Enforcement Division personnel

APPENDIX B
2016 GETTY TRIENNIAL SAFETY REVIEW CHECKLIST INDEX

Checklist No.	Department	Element/Characteristics
1	Executive Management	Policy Statement and Authority for SSPP
2	Executive Management	Goals and Objectives
3	Executive Management	Overview of Management Structures
4	Executive Management	SSPP Control and Update Procedures
5	Executive Management	SSPP Implantation Activities and Responsibilities
6	Risk Management	Hazard Management Process
7 & 8	Engineering & Otis	System Modification/ Safety Certification
9	Risk Management	Safety Data Collection and Analysis
10	Risk Management & Otis	Accident/Incident Investigation
11	Security and Visitor Services, & Emergency Planning	Emergency Management Program
12	Facilities & CH2M	Internal Safety Audits/Reviews
13	Otis, Security and Visitor Services, & Grounds	Rules Compliance
14	Otis & Facilities	Facilities and Equipment Inspections
15-A	Otis	Maintenance Audits and Inspections – S8000 Vehicle Inspections
15-B	Otis	Maintenance Audits and Inspections: S5000 Guideway Inspection
15-C	Otis	Maintenance Audits and Inspections –S4000 Equipment in Turning Sheave, S6000 Equipment in Tension Pit
16	Otis	Training and Certification Programs: Otis Elevator Maintenance and Operations Employees
17	Facilities	Configuration Management and Control
18-A	Risk Management & Otis	Local, State, and Federal Requirements: Employee Safety Program
18-B	Security and Visitor Services	Local, State, and Federal Requirements: Employee Security Program
19	Risk Management & Otis	Hazardous Materials Program
20	Human Resources	Drug and Alcohol Program
21	Facilities & Otis	Procurement
22	Facilities, Security, & Otis	CPUC GO 172 – Personal Electronic Device Prohibitions/In-cab Cameras
23	Risk Management & Otis	CPUC GO 175 – Rules and Regulations Governing Roadway Worker Protection Provided by Rail Transit Agencies and Fixed Guideway Systems

APPENDIX C

2016 GETTY TRIENNIAL SAFETY REVIEW RECOMMENDATIONS LIST

No.	Recommendation	Checklist No.
1	Getty should remove all stored material within the Transformer Room to eliminate any hazard that the stored material may cause during inspections and or emergencies. 29 CFR 1910.303 (g) (1).	14
2	Getty should perform monthly inspections of all fire extinguishers and have fire extinguishers mounted to a fixed location. 29 CFR 1910.157(e) (2) and 29 CFR 1910.157 (c) (1)	14
3	Getty should determine if PED training is a requirement on the guideway.	16
4	The Getty should submit its Worker Guideway Protection Program to the CPUC for review.	23

APPENDIX D

2016 GETTY TRIENNIAL REVIEW CHECKLISTS

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	1	Subject	Policy Statement and Authority for System Safety Program Plan: Senior Management Involvement and Commitment to Safety
Date of Review	December 5, 2016	Department(s)	Executive Management
Reviewers/ Inspectors	Steve Artus; Noel Takahara; Varouj Jinbachian; Daniel Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Bob Combs (Getty Director of Security & Visitor Services); Michael Lotito (Getty Facilities Engineering); Jeff Sanders (Otis Operations Manager); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

**Policy Statement and Authority for System Safety Program Plan:
Senior Management Involvement and Commitment to Safety**

Interview J. Paul Getty Trust's Vice President (VP), Chief Financial Officer (CFO), Chief Operating Officer (COO), Director of Security and Visitor Services, Director of Facilities, Head of Facilities Engineering and Otis Representatives to discuss:

1. Interactions of safety and security concerns and issues as it pertains to the Getty Tram between Getty Trust and Otis Elevator Company;
2. How safety and security issues and concerns are resolved as it pertains to the Getty Tram to ensure full safety of Getty's visitors and employees;
3. How Getty's Trust group has incorporated the Getty Tram's safety concerns into Getty's policies, documents and Standard Operating Procedures.

RESULTS/COMMENTS

Activities:

Staff met with Getty representatives and determined the following:

1. Getty representatives informed Staff that their previous head of the Facilities Engineering and Maintenance department recently retired and the current Facilities Engineering Manager is their main interface with Otis personnel. There are 3 designated on-site Otis mechanics (1 foreman, 2 mechanics) maintaining the Getty Center Tram and elevators. The Getty Director of Facilities discussed his involvement as well in requesting Otis to conduct an overall review of the Getty Tram safety and reliability. The inquiry resulted in the replacement of the Tram's 3 phase drive. The 3 phase drive of the relatively aging tram system was identified as a component that would be difficult to replace and could result in prolonged service downtime and possible safety issues unless proactive measures were taken. Getty is in initial discussions with Otis to develop further modernization plans of the tram. Currently the reliability of the Getty Tram does not appear to be an issue although there was a single incidence of stoppage this year that required passengers to exit and traverse the guideway on foot to the nearest platform.

2. Getty Department heads attend a Quarterly safety meeting which includes tram safety and security topics. Getty's consultant from CH2M Hill and Otis representatives also attend. Staff expressed interest in receiving the meeting invites and minutes for future quarterly safety meetings. Getty directors hold weekly meetings with the COO. Getty Directors have the ability to authorize expenditures to make safety and security improvements. Director of Facilities requisitioned platform area fall protection in response to CPUC inspection findings and provided documentation during the interview detailing specifics of the work involved for the safety improvement.
3. Getty representatives have been working with Staff since 2014 in a cooperative and constructive manner to promote the safety and security of the tram. Getty Directors developed the initial Getty Tram SSPP in late 2014 and began implementation of the plan in early 2015. Since the drafting and development of the SSPP Getty has been utilizing a CH2M Hill consultant with transit safety experience to aid in safety review activities and implementation of the SSPP. Currently Otis maintains any specific SOPs related to preventive maintenance procedures, etc. These items will be reviewed in the maintenance related checklists of this safety review report.

Findings:

None

Recommendations:

None

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	2	Subject	System Safety Program Plan: Goals and Objectives
Date of Review	December 5, 2016	Department(s)	Executive Management
Reviewers/ Inspectors	Steve Artus; Noel Takahara; Varouj Jinbachian; Daniel Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Bob Combs (Getty Director of Security & Visitor Services); Michael Lotito (Getty Facilities Engineering); Jeff Sanders (Otis Operations Manager); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. J Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

System Safety Program Plan: Goals and Objectives

Interview J. Paul Getty Trust Senior Management and Otis Elevator Company and review appropriate records to:

1. Determine if Getty and/or Otis is identifying, mitigating and controlling safety hazards by establishing requirements, lines of authority, levels of responsibility and accountability and methods of documentation
2. Determine if Getty and/or Otis is in compliance with applicable requirements regarding safety, including safety of visitors, staff, first responders, and equipment, including all applicable local standards, ordinances and regulations required by the CPUC
3. Determine if Getty and/or Otis is or has defining a hazard resolution process that includes the procedures necessary to identify and resolve or control hazards and vulnerabilities
4. Determine if Getty and/or Otis is or has established procedures to audit adherence to safety policies, procedures and requirements
5. Determine if Getty and/or Otis has established and identified operations and maintenance safety procedures for both normal and abnormal operations.

RESULTS/COMMENTS

Activities:

Staff met with Getty representatives and determined the following:

1. Hazard management activities are described in Section 6 of the Getty SSPP. This topic is discussed in greater detail in checklist 6 of this report. In addition, Getty noted in discussion that they have a visitor comment card, and that employees can anonymously report problems by using a special phone line.
2. Compliance with the Getty SSPP will be assessed throughout the body of this safety review report. Getty SSPP and Otis operating procedures compliance is discussed in detail on checklists 13 and 16 and throughout the body of this safety review report. Getty representatives informed that the facility is classified as a "high rise" and follow those applicable rules including LA Fire Dept. requirements related to smoke detectors, public address systems, fire separations, etc.
3. Hazard resolution activities are described in Section 6 of the Getty SSPP. This topic will be

discussed in detail in Checklist no. 6 of this safety review report.

4. Getty SSPP Section 13 Rules Compliance states that Otis and Getty will review Tram operation and maintenance/inspection procedures annually. SSPP Section 12 describes the Internal Safety Audit (ISA) process being implemented by Getty. Getty submitted their initial Internal Safety Audit report in February 2016 as required by General Order 164-D. The ISA was performed by the Director of Facilities and resulted in 4 recommendations for corrective action.
5. Section 14 and 15 of the Getty SSPP describe facilities and equipment inspections along with maintenance audits/inspections. Maintenance and operations related procedures will be discussed in detail in checklist 14 and 15 of this safety review report.

Findings:

None

Recommendations:

None

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	3	Subject	System Safety Program Plan: Overview of Management Structure
Date of Review	December 5, 2016	Department(s)	Executive Management
Reviewers/ Inspectors	Steve Artus; Noel Takahara; Varouj Jinbachian; Daniel Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Bob Combs (Getty Director of Security & Visitor Services); Michael Lotito (Getty Facilities Engineering); Jeff Sanders (Otis Operations Manager); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. J Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

System Safety Program Plan: Overview of Management Structure

Interview J. Paul Getty Trust Senior Management and review appropriate records if necessary to:

1. Determine if Getty Head of Facilities Engineering and Otis Elevators are meeting on a quarterly basis to discuss any safety issues and/or concerns regarding the Getty Tram and are being communicated to Getty's Director of Facilities
2. Determine if Getty's VP, CFO and COO is properly informed of any safety issues and/or concerns from Facilities Engineering and/or Otis
3. Determine if safety for the tram is part of the J. Paul Getty Trust emergency preparedness and response organizational structure per NFPA Standard 1600, SEMS, and ICS as well as per the requirements of LAFD.

RESULTS/COMMENTS

Activities:

Staff met with Getty representatives and determined the following:

1. See Checklist No. 1 Item 1.
2. Through discussion with the Getty Directors the reviewers assess that the Getty COO is properly informed of major safety issues by way of quarterly safety meeting minutes, weekly director meetings, and in informal briefings on an as needed basis. Getty directors note that the COO is interested in safety related matters.
3. Getty Security Director informed that they have adopted the Incident Command System and perform annual Tram Emergency Evacuation Drills. Getty informed that a safety manager is available on-site whenever they are open to the public. See checklist no. 18 for further details.

Findings:

None

Recommendations:

None

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	4	Subject	System Safety Program Plan: Control and Update Procedure
Date of Review	December 5, 2016	Department(s)	Executive Management
Reviewers/ Inspectors	Steve Artus; Noel Takahara; Varouj Jinbachian; Daniel Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Bob Combs (Getty Director of Security & Visitor Services); Michael Lotito (Getty Facilities Engineering); Jeff Sanders (Otis Operations Manager); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. J Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

System Safety Program Plan: Control and Update Procedure

Interview J. Paul Getty Center's Facilities Department, Safety Department, and Security and Visitor Services Department, and review appropriate records to:

1. Verify the required annual SSPP review process is being implemented according to CPUC General Order 164-D, Section 3.1;
2. Determine if Getty's VP, CFO, COO, Director of Facilities, and Director of Security and Visitor Services approved the current SSPP
3. Determine if Getty has a written process for updating and distributing its SSPP;

RESULTS/COMMENTS

Activities:

Staff met with Getty representatives and determined the following:

1. SSPP section 4 describes the SSPP annual review process. Staff has verified that the Getty Center has submitted an initial SSPP and a 2016 letter stating changes to the SSPP are pending based on the Internal Safety Audit report findings.
2. The Getty SSPP cover page includes approval signature lines from the COO, the Director of Facilities and the Director of Security and Visitor Services.
3. The Getty SSPP section 4 notes the process for SSPP updating and distribution. The most recent Internal Safety Audit (ISA) report issued recommendations to revise some portions of the SSPP that will be sent to Staff for review and approval.

Findings:

None

Recommendations:

None

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	5	Subject	System Safety Program Plan: Implementation Activities and Responsibilities
Date of Review	December 5, 2016	Department(s)	Executive Management
Reviewers/ Inspectors	Steve Artus; Noel Takahara; Varouj Jinbachtian; Daniel Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Bob Combs (Getty Director of Security & Visitor Services); Michael Lotito (Getty Facilities Engineering); Jeff Sanders (Otis Operations Manager); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. J Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

System Safety Program Plan: Implementation Activities and Responsibilities

Interview J. Paul Getty Center's Facilities Department, Safety Department, and Security and Visitor Services Department, and review appropriate records to:

1. Determine if Getty has a written process for implementing its SSPP
2. Determine if Getty's SSPP identifies the responsibilities of each department for SSPP implementation.

RESULTS/COMMENTS

Activities:

Staff met with Getty representatives and determined the following:

1. SSPP section 5 includes a matrix that summarizes SSPP implementation responsibilities and roles/interaction amongst Getty Security, Getty Facilities, Otis Elevator, Getty Risk Management, and CPUC in carrying out SSPP related tasks.

Findings:

None

Recommendations:

None

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	6	Subject	Hazard Management Process
Date of Review	December 6, 2016	Department(s)	Risk Management
Reviewers/ Inspectors	Claudia Lam Daniel Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Linda Somerville (Getty Asst. Director of Insurance & Risk Management) Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill); Charlie Hetland (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. J Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Hazard Management Process

Interview the appropriate J. Paul Getty Trust representative(s) in charge of the Hazard Management Process to determine for the past year if:

1. Safety Department maintains a mechanism to capture, track and codify hazards based on their SSPP;
2. Getty has defined minimum thresholds for the notification and reporting of hazard(s) to the CPUC and has a specified process for reporting of hazard resolution activities to the CPUC (as required by items (e) and (f) in Section 6 of GO 164-D);
3. Corrective Action Plans (CAP) are developed to address identified hazards and the CAPs identifies the individual or department responsible for implementation and a schedule for completion;
4. Getty has submitted monthly Form Vs to CPUC staff for review.

RESULTS/COMMENTS

Activities:

Staff interviewed Getty's Assistant Director of Risk Management and Otis personnel regarding the Hazard Management Process and reviewed documentation to determine the following:

- According to the Assistant Director of Getty's Risk Management Department, Getty's culture encourages employees to report any hazards whenever they see something without getting any penalty. Facilities Department, Security Department, and Risk Management Department holds quarterly meetings with CH2M and Otis to discuss any safety issues related to tram. Any Injury, illness, or security incident captured will be discussed. Staff reviewed several quarterly meeting agendas. The meeting notes have a tracking matrix with the date, reference number, and description of each hazard and incident. However, the matrix is missing the CAPs, individual/department responsible for implementation, and a target date for completion. In addition, Getty will start utilizing the analyses as stated in the SSPP for the hazards tracked and discussed during the quarterly meetings such as assigning hazard category to each hazard such as 1A, 2c...etc.)

Getty staff have responded they will correct the problem immediately by adding four columns to the matrix (“CAPS, “Responsible staff/Department”, “Target Date for Completion”, and hazard category).

- Getty has defined minimum thresholds in its SSPP. Nothing was reported to CPUC for hazard because there has been no unacceptable hazard. There was a recommendation from CPUC inspector for putting a railing on the guideway, and Getty forwarded the drawing to CPUC before executing the plan. This is a good example of joint effort of CPUC and Getty to make the system safe.
- Staff reviewed the Form Vs Getty has submitted monthly to CPUC. Starting in November 2016, Getty has been able to count tram passengers, instead of visitor counts.

Findings:

None.

Comments:

Getty tracking matrix does not include “CAPS, “Responsible staff/Department”, “Target Date for Completion”, and hazard category). Staff suggests that Getty start the analyses stated in its SSPP or update its SSPP to eliminate the analyses that don’t apply to the system.

On February 21, 2017, Staff reviewed a template to be used in the quarterly meeting which implements all the changes suggested.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	7 & 8	Subject	System Modification
Date of Review	December 7, 2016	Department(s)	Engineering & Otis
Reviewers/Inspectors	Joey Bigornia Howard Huie Varoujan Jinbachian Dan Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Michael Lotito (Getty Engineering Manager); Linda Somerville (Getty Asst. Director of Insurance & Risk Management); Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager);

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. J Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

System Modification and Safety Certification

Conduct interviews and review appropriate documents to ensure that:

1. Getty has a procedure in its SSPP that addresses system modification and safety certification of the Getty Tram in accordance with CPUC General Orders.
2. Getty will submit a Safety and Security Certification Plan and a Safety and Security Certification Verification Report on new tram projects as per required by CPUC General Order 164-D, Sections 11 & 12.

RESULTS/COMMENTS

Staff interviewed Getty, Otis, and CH2M Hill Consultants and found the following:

Activities:

1. The Getty Museum Tram has been operating for 25-years and Getty reports there has not been any major modifications to the operating system. The only change was a railing at the lower station and the lower drive unit which was a remove and replaced. CPUC staff inspectors from a previous inspection recommended a railing at the Tier (T1) level. Getty designed a railing system to prevent pedestrian access or tripping into the guideway. Shop drawings were designed and Getty Security, Risk Management, Facilities (engineering), City of Los Angeles, Los Angeles Fire Department (for permits) reviewed the proposals. Getty also reported sending the rail drawings to CPUC designated representative for review and comments. After completion, CPUC Inspectors field verified the railing installation. CPUC requested an access chain installed with signage and Getty implemented the CPUC's request. Getty plans to add railing at the upper tram station stop and will use the same process followed for the T1 level.

Getty reports the current SSPP discusses the system modification and safety certification process and the new revised SSPP Section Nos. 7 and 8 scheduled for late January 2017, will provide additional descriptions.

2. Getty reports they will prepare a SCVR for a major project completion and will include all necessary signatures/approvals.

Findings:

None.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	9	Subject	Safety Data Collection and Analysis
Date of Review	December 6, 2016	Department(s)	Risk Management
Reviewers/ Inspectors	Claudia Lam Daniel Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Linda Somerville (Getty Asst. Director of Insurance & Risk Management); Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill); Charlie Hetland (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Safety Data Collection and Analysis

Interview the J. Paul Getty Trust representative(s) responsible for safety data acquisition and analysis and review the safety data acquisition and analysis program requirements and computer database to determine if:

1. The J Paul Getty Center reviews information regarding accidents, incidents, hazardous conditions and operations obtained from reporting mechanisms including safety and inspection logs, operation reports, maintenance data and analysis is analyzed and identified.
2. Mitigating measures are identified and corrective actions are implemented.

RESULTS/COMMENTS

Activities:

Staff interviewed Getty's Assistant Director of Risk Management and Otis regarding the Safety Data Collection & Analysis program and reviewed relevant program documentation. Staff determined the following:

- Otis notifies Getty Security any issues related to the tram. There have been no reportable injuries/hazards at the Tram. Most of the incidents reported to security are wind related issues, or objects being thrown into the guideway. Security is present at the Getty 24/7, and Otis is usually present during operating hours. Whenever Otis identifies any safety issues, Otis will call security control/central monitoring station and security will notify Risk Management. The Assistant Director of Risk Management will review each incident and determine the severity, any injury to people, any property damage, and why it happened. The Assistant Director of Risk/Safety has records of all safety data.
- Mitigating measures are discussed during the Quarterly Tram Meetings. However, the tracking matrix Getty used in the quarterly meeting agenda is missing CAPs, Responsible Staff/Department, Target Date for Completion, and Hazard Category. Getty Risk Management staff will correct these items immediately by adding four columns to the matrix. (See Checklist 6 for detail).

Findings:

None.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	10	Subject	Accident/Incident Reporting and Investigations
Date of Review	December 6, 2016	Department(s)	Risk Management & Otis
Reviewers/ Inspectors	Mike Warren	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Linda Somerville (Getty Asst. Director of Insurance & Risk Management); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014
3. Code of Federal Regulations, CFR 49 Parts 659.33 Accident notification, 659.35 Investigations, and 659.37 Corrective action plans

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Accident/Incident Reporting and Investigations

Review the accident investigation procedures, reports, and corrective action plans and schedules utilized by J. Paul Getty Trust to determine if:

1. Getty has a process for reporting accidents to the CPUC by telephone, FAX and/or email within 2-hours, and by written report within 30-days from the last day of the month during which the accidents occurred.
2. Getty reported relevant accident information to the CPUC within two hours as required in the reference criteria.
3. Getty process requires accidents investigated according to its AIP (Accident Investigation Procedure), an accident investigation report is prepared within 60 days of the occurrence of the accident, that identifies:
 - a. Each item covered in the investigation.
 - b. The investigation findings.
 - c. The most probable cause.
 - d. Underlying contributing causes.
 - e. Sufficient narrative and evidentiary support to justify finding of (c) and (d).
4. The accompanying corrective action plan properly addresses the identified causes and can be expected to minimize the accident from recurring and identifies an implementation schedule.

RESULTS/COMMENTS

Activities:

Staff interviewed Getty Trust Risk Management and Facilities representatives in charge of Accident Investigation Program and reviewed the following records and documentation.

Getty Trust's Assistant Director of Risk Management is responsible for CPUC notification of accidents/incidents meeting the thresholds in General Order 164-D. The Getty Trust Director of Facilities is responsible for submitting a final investigation report to CPUC Staff. Risk, Facilities, and Otis will work jointly in investigating accidents/incidents. The Assistant Director of Risk Management has over 20 years of accident/incident investigation. Security is usually first notified of any accident/incident, and depending upon the nature will make the further notifications as advised in Getty Trust's SSPP and IIPP.

1. Getty has a process for reporting accidents to the CPUC within 2-hours and submitting a written

report within 30-days from the last day of the month during which the accidents occurred.

2. Getty has had no reportable accidents/incidents within the past 2 years.
3. Getty's Accident Investigation Procedures are described in their SSPP, Section 10 and meets the requirements of General Order 164-D.
4. Getty has had no reportable accidents/incidents within the past 2 years.

Findings:

None.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	11	Subject	Emergency Management Program
Date of Review	December 7, 2016	Department(s)	Emergency Management
Reviewers/ Inspectors	Howard Huie Joey Bigornia	Person(s) Contacted	Les Borsay (Getty Department Coordinator); Raj Kumar (Getty Security Operations Manager); Bob Combs (Getty Director of Security & Visitor Services); Michael Rogers (Getty Director of Facilities); John Simon (CH2M Hill) Charlie Hetland (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. J Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Emergency Management Program

Interview the Getty Emergency Preparedness and Operations personnel in charge of Emergency Management for the past year to determine if:

1. Emergency Response Procedures are being periodically reviewed and revised as necessary
2. Getty Trust conducts a physical tram evacuation drill on an annual basis with its Security and Visitor Services staff, its Facilities staff and Otis Elevator Company Staff, where the LAFD is invited to participate
3. Getty annually schedules staff-wide emergency drills, as well as regular tabletop drills with its Security and Visitor Services staff to address various types of emergencies stated in Section 11 of Getty's SSPP
4. Emergency drills were critiqued and evaluated by participants and any corrective actions plans that entailed Getty, were recorded, scheduled, and tracked to completion in a timely manner.

RESULTS/COMMENTS

Activities:

Staff interviewed Getty Trust representatives and determined the following:

1. The Getty uses a Wikia System to track and update their Emergency Plans and Procedures. The Wikia System identifies the employee who made the latest revisions by time/date stamp and what changes were made. All plan and procedural reviews are ongoing. For example, before upcoming training classes, the training instructors will review the material to see if there was anything relevant that should be added or removed if it's no longer applicable. All plans and procedure changes are done on as an as needed basis since there are no formal review dates scheduled. The Getty schedules start dates for new employees every 2 weeks and the New Employee Orientation (NEO) is scheduled every two weeks to coincide with the new hires. Staff reviewed the Tram Safety Training: Tram Shutdown and Evacuation, dated 11/30/2016, which was recently used in their NEO training class.
2. The Getty schedules and conducts all their drills on Mondays, which is when the system is closed to the public, unless a scheduled event is planned for that day. On September 16, 2016, the Getty conducted the Getty Tram Evacuation Drill Exercise. Getty employees, Otis employees, and other volunteers were loaded on the tram and simulated injuries after an emergency tram

stoppage. After the completion of the drill, Otis generated the Getty Tram Evacuation Drill Exercise Confidential Report, which Staff reviewed. The report included the drill scope and purpose, lessons learned, and recommendations for improvements. Los Angeles Fire Department (LAFD) was invited to observe. Otis is always on site during Getty's operating hours. In the event of a tram emergency, Otis and Getty Security personnel will arrive on scene before LAFD arrives on site. The Getty has direct live radio communication with the local fire department to inform them of the situation, status, and other critical information while they respond to an emergency at the Getty Center. The Getty uses the Incident Command System (ICS) with the same emergency response codes as the LAFD and LAPD.

3. The Getty campus buildings are considered high-rises and are LAFD REG 4 compliant. All building tops at the Getty Center are marked with a building identifier for aerial emergency responders to identify each structure. Each building has a designated person on every floor and/or building warden. The floor and/or building warden is usually a security person or a designee. The designated person, usually the building warden and/or a floor warden, is the contact person responsible for communicating with the Emergency Operations Center (EOC). The floor warden has a list of employees of who are evacuated from their floor. The employee roster list is given to the building warden, who communicates to the EOC in the event of an evacuation. Visitor Services and Security protocol is to evacuate the tram and lead the patrons to a safe area. There is no practical way of accounting for each visitor in an emergency evacuation so Getty relies on the guests to account for their respective parties. On June 22, 2015, Getty held a Train shutdown between top and bottom stations table top exercise. Staff reviewed the table top exercise documentation to confirm Getty follows their Emergency Response Procedures.
4. See question 2 above for Emergency Drill exercise. Getty's Emergency Planning Specialist has signed off on corrective action plans (CAPs). Getty plans to report drill after action items status in their upcoming quarterly Getty / Otis Meetings.

Findings:

None

Comments:

None

Recommendations:

None

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	12	Subject	Internal Safety Audits
Date of Review	December 7, 2016	Department(s)	Facilities & CH2M
Reviewers/Inspectors	Varoujan Jinbachian Joey Bigornia Howard Huie	Person(s) Contacted	John Simon (CH2M Hill); Michael Rogers (Getty Director of Facilities);

REFERENCE CRITERIA

1. General Order 164-D
2. J Paul Getty Trust System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Internal Safety Audits

Verify the J. Paul Getty Trust internal safety audit process (ISAP) is providing a method of measuring effectiveness of the SSPP in achieving its safety performance of the Getty Tram by interviewing Otis Elevator Company's operations and maintenance staff and reviewing records. Determine if:

1. The J. Paul Getty Trust has planned, scheduled, and performed annual internal safety audits for the last two years to evaluate compliance and measure the effectiveness of its system safety program plan.
2. The J. Paul Getty Trust included and covered all the organizational elements described in the Internal Safety Audit Process section of the APTA Guidelines in the audit scope within 2014 to present and the 2-year period thereafter.
3. The J. Paul Getty Trust documented ISAP findings and recommendations in an annual report that covered the audits performed during each calendar year. The results have been distributed to the J. Paul Getty Trust Chief Operations Officer and department managers covered by the audit. J. Paul Getty Trust has submitted the annual report to the Commission staff prior to the 15th of February each year.
4. The J. Paul Getty Trust has tracked the corrective action plans and all the responsible departments implemented their respective approved recommendations and action plans since 2013.
5. The J. Paul Getty Trust has developed an Internal Safety Audit Plan and Schedule, for 2017, 2018 and 2019, in accordance with CFR 49, Part 659.27 requirements.

RESULTS/COMMENTS

Activities:

Staff interviewed Getty Museum representatives and determined the following:

1. Getty performed the following Internal Safety Audits (ISA) elements in 2015: December 21 and 22 2015, - 7/8 Safety Certification Process, Incident Notification, 10 Investigation and Reporting, 12 Internal Safety Audit Process, 14 Facilities and Equipment Inspections, 20 Drug and Alcohol Abuse.

Getty performed the following ISAs elements in 2016: June 14, 2016 – 3 Organizational Structure and System Description, 5 SSPP Implementation, 6 Hazard Management Process, 9 Safety Data Acquisition, 13 Rules Compliance, 17 Configuration Management Process, 19 Hazardous Materials Program.

August 2016 – 1 Policy Statement, 2 SSPP Purpose Goals, and Objectives, 4 SSPP Review and Modification, 11 Emergency Management Plan, 15 Maintenance Audits/Inspections, 16 Training

and Certification Program, 18 Compliance with Local State and Federal Requirements, 21 Procurement.

Items that are open from the previous ISAs are carried over to the new ISA for follow up and status updates. Future updates will be included in the Quarterly and/or Monthly meetings to track current status.

2. Getty's organizational charts are updated and the ISA reports were signed by the VP/CFO/COO. From December 2015 to August 2016, all 21 elements were performed. Getty's future ISA's will schedule the 21-elements to be audited/reviewed to a handful per year within a 3 year cycle.
3. See dates from Q1 above for ISA dates above, elements, and approvals.
4. Items that are open from the previous ISAs are carried over to the new ISA for follow up and status updates. Future updates will be included in the Quarterly and/or Monthly meetings to track current status.
5. The Annual Report will identify all 21-elements to be performed within a 3-year cycle.

Findings:

None.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	13	Subject	Rules Compliance: Operating Rules and Maintenance Procedures Manual and Operations Bulletin Revisions
Date of Review	December 6, 2016	Department(s)	Otis, Security and Visitor Services, & Grounds
Reviewers/ Inspectors	Debbie Dziadzio	Person(s) Contacted	Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager); Charlie Hetland (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014
3. Tram Operation and Maintenance / Inspection Procedure

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Rules Compliance: Operating Rules and Maintenance Procedures Manual and Operations Bulletin Revisions

Interview J. Paul Getty Trust and Otis representatives responsible for operations rules and procedures, maintenance procedures, and observe/inspect operations, and review documentation as necessary to determine whether or not:

1. The Tram Emergency Procedure, Tram Operation and Maintenance Procedures and other support documentation are reviewed, revised, and distributed to the relevant personnel.
2. Otis Elevator Company employee duties (by CPUC staff interviews/observations) are performed in accordance with the Standard Operating Procedures.

RESULTS/COMMENTS

Activities:

Staff reviewed the Getty Tram SSPP dated November 2014 and Tram Operations and Maintenance/Inspection Procedures (Getty and Otis rules, SOPs, OTIS Employee Safety Handbook, Emergency Operations Procedures), OTIS 2016 Environment, Health & Safety Weekly Training Manual, Lock-Out Tag-Out (LOTO) Procedures, Start-Up Procedures, OTIS Elevator RF-7 (Fatality Prevention Guide).

1. All above mentioned material is revised and distributed to relevant personnel in a timely manner.
2. Staff observed release of LOTO to start-up system via radio communications & observation of personnel. (Pertinent personnel are responsible for their own locks and tags). Staff reviewed Emergency STOP (initiated by CPUC Inspection Team at Turning Room Blue Light Station). OTIS personnel exhibited excellent radio communications.

Comments:

Staff suggests Getty incorporate verbiage in the SSPP regarding timeframe for reviews and revisions (i.e. once/year, once every two years, once every 5 years, etc.)

Tram Control Room was missing a (current) copy of Employee Safety Book, RF-7.

Findings:

None

Recommendations:

None

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	14	Subject	Facilities and Equipment Inspections
Date of Review	December 6, 2016	Department(s)	Otis & Facilities
Reviewers/ Inspectors	Shane Roberson	Person(s) Contacted	Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager); Charlie Hetland (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. General Order 143-B
3. J. Paul Getty Center Tram System Safety Program Plan (SSPP), Rev. 12, dated November 2014, Section 14.0.

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Facilities and Equipment Inspections: Non-Revenue Facilities and Wayside

Interview J. Paul Getty Trust and Otis representatives and review appropriate records for past 3 years to determine whether:

1. The required inspections were performed at the required intervals for each:
 - Electric Room (East Tram and West Tram Lane, Daily)
 - Mezzanine (Daily)
 - Machine Room
 - Control Room (Daily)
 - Transformer Room
 - North Island Maintenance Station
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.

RESULTS/COMMENTS

Activities:

Staff performed a site inspection and record inspection of:

- Electric Room (East Tram and West Tram Lane, Daily)
- Mezzanine (Daily)
- Machine Room
- Control Room (Daily)
- Transformer Room
- North Island Maintenance Station

Comments:

1. Staff noted at the Southern Mezzanine location, the tram guideway pit is not protected from public access. Staff suggests Getty install fall protection around the pit to reduce accessibility to a hazardous environment from unauthorized employees and/or visitors.

On February 21, 2017, Staff met with Getty for a Fall Hazard Review Workshop to address the fall protection concerns. It was agreed that the hazard identified should be rated as 3D (Acceptable Hazard with Review) per Getty SSPP Section 6, Hazard Resolution Matrix, utilizing applicable Getty hazard analysis and hazard resolution procedures.

Findings:

Transformer room:

1. Staff noted the transformer room at the North location is being used for storage of material. This material is blocking access lanes to the equipment prevent easy access in case of an emergency.
2. Staff noted the extinguisher is not properly mounted in the room.

Mezzanine:

All:

3. Staff noted the fire extinguisher monthly inspection tags at all locations are not being signed acknowledging the extinguishers are being inspected.

North Island Maintenance Station:

No exceptions noted

Control Room:

No exceptions noted

Machine Room:

No exceptions noted

Electric Room:

No exceptions noted

Recommendations:

1. Getty should remove all stored material within the Transformer Room to eliminate any hazard that the stored material may cause during inspections and or emergencies. 29 CFR 1910.303 (g) (1).
2. Getty should perform monthly inspections of all fire extinguishers and have fire extinguishers mounted to a fixed location. 29 CFR 1910.157(e) (2) and 29 CFR 1910.157 (c)

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	15-A	Subject	Maintenance Audits and Inspections – S8000 Vehicle Inspections - CPUC Equipment Inspector
Date of Review	December 06 and 21, 2016	Department(s)	Otis
Reviewers/Inspectors	James Matus	Person(s) Contacted	Rob Searles (Otis Getty Site Manager); Michael Lotito (Getty Engineering Manager);

REFERENCE CRITERIA

1. General Order 143-B
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), Rev. 12, dated November 2014, Section 15.

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Maintenance Audits and Inspections – S8000 Vehicle - CPUC Equipment Inspector

Review the vehicle record records for the past 3 years to determine whether or not:

1. The vehicle and components were inspected at the required frequency interval
2. Defects found were properly documented
3. Defects found were corrected in a timely manner

RESULTS/COMMENTS

Activities: Staff inspected records of inspection for the S8000 vehicle. Staff verified that maintenance programs are in place with proper documentation of detects and that defects were repaired in a timely manner. Staff performed a maintenance inspection on the S8000 cars.

Staff verified daily, weekly, and monthly inspections for the past three years. New formats have been put in place for the year 2016 for the maintenance inspection forms. Staff verified proper documentation of maintenance records for the years 2014, 2015, and 2016. On inspection forms details are made to defects and repairs made. Defects are tracked by maintenance supervisor and are repaired in a timely manner with proper documentation as to what type of repair was made. Fire extinguishers are now being tracked by maintenance to prevent any out date fire extinguisher from being put into service. Air conditioning, air suspension, chassis frame, coupling device, power collector, vehicle lighting, door operation, and emergency doors and walkways are inspected on the S8000 daily and weekly. Staff verified repairs were made to the last inspection and were complete.

Findings:

None.

Recommendation:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	15-B	Subject	Maintenance Audits and Inspections: S5000 Guideway Inspection
Date of Review	December 6, 2016	Department(s)	Otis
Reviewers/ Inspectors	John Madriaga	Person(s) Contacted	Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager); Charlie Hetland (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), Rev. 12, dated November 2014.

Maintenance Audits and Inspections: S5000 Guideway Inspection

Review the tram records for the past 3 years to determine whether or not:

1. The guideways and components were inspected at the required frequency interval
2. Defects found were properly documented
3. Defects found were corrected in a timely manner

RESULTS/COMMENTS

Activities:

- 1) Staff verified documentation which shows the guideway and components were inspected in a timely manner.
- 2) Staff verified Daily Maintenance records which shows defects found during inspection documented per procedure.
- 3) Staff verified defects found during inspections were tracked and corrected in a timely manner.

Findings:

None

Recommendations:

None

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	15-C	Subject	Maintenance Audits and Inspections –S4000 Equipment in Turning Sheave, S6000 Equipment in Tension Pit - CPUC Signal Inspector
Date of Review	December 06, 2016	Departments	Otis
Reviewers/ Inspectors	James Matus	Persons Contacted	Rob Searles (Otis Getty Site Manager); Michael Lotito (Getty Engineering Manager)

REFERENCE CRITERIA

1. General Order 164-D
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Maintenance Audits and Inspections - S4000 Equipment in Turning Sheave, S6000 Equipment in Tension Pit - CPUC Signal Inspector

1. S4000 Equipment in Turning Sheave Inspection
 - a. Review the inspection forms for the past 3-years to confirm to determine whether or not the turning sheave inspections were performed at the required frequency interval.
 - b. Defects noted were properly documented
 - c. Defects found were corrected in a timely manner
2. S6000 Equipment in Tension Pit Inspection
 - a. Review the inspection forms for the past 3-years to confirm to determine whether or not the tension inspections were performed at the required frequency interval.
 - b. Defects noted were properly documented
 - c. Defects found were corrected in a timely manner

RESULTS/COMMENTS

Activities:

Staff inspected S4000 equipment for proper documentation of records for the past three years. Staff reviewed proper documentation of defects and the corrective action of these defects. Staff also reviewed the documentation of records for the past three years for the S6000 equipment and the proper corrective action plan to correctly document and repair defects.

Staff inspected machine area and maintenance rooms. Staff inspected doors and lighting in the machine rooms and found the lighting environment good with minor cleanliness issues. Staff verified that the drive motors and gearboxes are being properly maintained according to manufactures guidelines. Gearboxes are checked for oil levels, unusual noises, leakage, and unusual wear on oil lines. Drive motors are checked for unusual noises, overheating issues and carbon brushes are checked for unusual wear. Brake apparatus are being checked for hydraulic fluid levels, excessive consumption of fluid, digital temperatures, pressure gauges, relays, and control panel indications.

Staff inspected S6000 turning sheave room. Rope oilers are inspected for unusual wear, leakage, and proper oil level. Oil drop frequency is one drop per 45 to 60 seconds to cable. Idler sheaves are inspected for unusual wear and bearing noises along with sheave liners. Tension weights are inspected for tightness of mounting bolts and any excessive lateral

movements.

Wire rope is being inspected annually. Method of testing is an electromagnetic process. Company performing test is N.W. Duke Inc. Inspection testing is done in three Phases. Documents of testing for the years 2014, 2015, and 2016 show cable is in good condition. Monthly and daily visual inspections are being performed by Otis elevator by walking the guideway. All defects are being document properly and repaired in a timely manner.

Findings:

None.

Recommendation:

None

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	16	Subject	Training and Certification Programs: Otis Elevator Maintenance and Operations Employees
Date of Review	December 6, 2016	Department(s)	Otis
Reviewers/ Inspectors	Debbie Dziadzio	Person(s) Contacted	Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager); Charlie Hetland (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Training and Certification Programs: OTIS Elevator and Maintenance Employees

Select at least three (3) employees from the Otis Elevator and Maintenance classification and determine if:

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

RESULTS/COMMENTS

Activities:

Staff reviewed three Otis employee records to determine they possessed the required training and certification to perform their duties:

S503672

S504318

S504525

License and General Certificate are current (Otis certification – every two years).

Reviewed Orientation training records (emergency response, security/visitor services, SOPs)

Reviewed Apprenticeship records (apprenticeship program is 5 years).

Reviewed on-the-job training records (1st aid, CPPR, Fire Extinguisher, Emergency Preparedness, OSHA, Employee Safety Program, Tram Safety, State/Federal Regulations).

After initial 3 day in-person training for new Otis employees, reoccurring training is performed online. Training is mandatory for mechanics. Otis management tracks when training/recertification to due and advises pertinent personnel via email. A code that is unique for training is input into payroll records.

Comment:

Otis has a strong LOTO procedure. G.O. 172 requirements could be inserted into RWP SOP.

Findings:

Staff has found there is no PED training for Otis personnel (G.O. 172 Section 5.3).

Recommendations:

Staff recommends Getty determine if PED training is a requirement for Otis.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	17	Subject	Configuration Management and Control
Date of Review	December 7, 2016	Department(s)	Facilities
Reviewers/ Inspectors	Joey Bigornia Howard Huie Varoujan Jinbachian Dan Kwok	Person(s) Contacted	Charlie Hetland (CH2M Hill); John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Configuration Management

Select a J. Paul Getty Trust project and review documentation were submitted and approved during the past three years, to determine if:

1. System Modification/Configuration Changes were reviewed and approved in accordance with the J. Paul Getty Trust process,
2. There exists a process that ensures all organizational entities have an opportunity to review preliminary design and acceptance of final design,
3. Any hazards identified with system expansions or modifications of any kind are resolved
4. As-built drawings and related modifications are maintained by J. Paul Getty Trust.

RESULTS/COMMENTS

Staff interviewed Getty, Otis, and CH2M Hill Consultants and found the following:

Activities:

1. The Getty modifications process and the Otis modification processes were explained to staff. Otis reports if parts on the tram are becoming obsolete, then components/parts are identified for replacement. The original master design blue prints are maintained by both Getty and Otis. As the Getty Tram drive approaches its' service life, the Otis engineering team reviews the as-built engineering drive design drawings and works with the on-site manager/technicians to identify any components that need to be replaced. The on-site Otis mechanics have a direct communications to Otis for Original Equipment Manufacturer (OEM) specifications and Otis Engineering ensures compatible replacement parts are purchased for usage. The as-built drawings are revised accordingly if an OEM part is replaced with a replacement part to reflect correct manufacturer.
2. Monthly and Quarterly meetings between Getty and Otis is the current process for capturing system modifications, safety certification, and configuration management projects. Staff was presented with the Getty drive replacement project which was the only recent major project for the tram. The documentation showed the project was reviewed by all parties (consultants, security, etc.). The Chief Financial Officer is briefed at the monthly meetings for all issues, including elevators. Staff reviewed the October 19, 2016 Tram Safety Meeting Minutes and confirmed modifications and incidents are captured and reported at the meetings.
3. Getty reported the only hazard identified was the lack of railing which was subsequently installed (See Checklist #6 comments).
4. Otis maintains a set of as-built drive drawings and Getty maintains their set of as-built drawings for drive, facilities, lights, and railings at the Facilities Capital Projects department.

Findings:

None.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	18-A	Subject	Local, State, and Federal Requirements: Employee Safety Program
Date of Review	December 6, 2016	Department(s)	Risk Management & Otis
Reviewers/ Inspectors	Mike Warren	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Linda Somerville (Getty Asst. Director of Insurance & Risk Management); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Local, State, and Federal Requirements: Employee Safety Program

Interview J. Paul Getty Trust Safety Staff to determine if:

1. An appropriate form has been developed and employees are aware how to report safety hazards in the work place;
2. Procedures exist for investigating occupational injuries and illnesses and for correcting unsafe or unhealthy conditions in a timely manner;
3. The program includes occupational health and safety training for employees;
4. Getty has implemented the requirements of General Order 164-D into its Safety and Operations plans.

RESULTS/COMMENTS

Activities:

Staff interviewed Getty Trust Risk Management and Otis representatives in charge Employee Safety Programs and reviewed the following records and documentation.

All employees at Getty are encouraged to report all accidents/incidents, no matter the level of severity. Paperwork for workplace incidents goes to Risk who will investigate.

1. Getty utilizes the Employee Recognized Safety & Health Hazard Report Form for employees to report hazards in the workplace. Otis has the Job Hazardous Analysis (JHA) visual reminder while entering a new work area and weekly toolbox talks about safety and hazards hosted by maintenance supervisor/foreman.
2. Staff verified Getty and Otis have procedures for investigating occupational injuries and illnesses and for correcting unsafe or unhealthy conditions in their Injury and Illness Prevention Plan (IIPP).
3. All new employees receive initial IIPP training. Additional in-depth training for certain job duties are required and provided, some examples are: electrical, pesticides, fall protection.
4. Getty and Otis have various plans and procedures that cover the requirements of General Order 164D, such as their: SSPP, IIPP, employee training program, operation and safety procedures.

Findings:

None.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	18-B	Subject	Local, State, and Federal Requirements: Employee Security Program
Date of Review	December 7, 2016	Department(s)	Security
Reviewers/ Inspectors	Howard Huie Joey Bigornia	Person(s) Contacted	Bob Combs (Getty Director of Security & Visitor Services); Raj Kumar (Getty Security Operations Manager); Michael Rogers (Getty Director of Facilities); Linda Somerville (Getty Asst. Director of Insurance & Risk Management); John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. 49 CFR 659
3. S26AM Security Post Procedures, revision date 9/15/15
4. S13AM Security Post Procedures, revision date 9/15/16
5. I14, I15, I21, I22, Job Aid

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Local, State, and Federal Requirements: Getty Security Program

Interview Getty Security Staff to determine if:

1. Getty has an established set of security procedures, approved by Getty's Director of Security, in place for the tram system;
2. Getty's security tram system procedures are reviewed annually at a minimum and updates are implemented as necessary;
3. Getty security team is provided with tram specific security training;
4. Getty's Director of Security and Security Managers are aware of all security issues and concerns regarding the tram;
5. Getty's security issues are discussed internally and implemented at the staff level as well as the management level;
6. Getty's security team is trained to identify suspicious packages, behavior, appearance, and parcel inspections;
7. Getty's security issues, recommendations and concerns are tracked unto completion.

RESULTS/COMMENTS

Activities:

Staff interviewed Getty Museum representatives and determined the following:

1. Getty has the S13AM Post Procedures, dated September 5, 2016, for security personnel assigned to the Tram. The procedures include: Opening Procedures, Closing Procedures, Additional Duties, Evacuation Procedures, Medical Emergencies, General Procedures All Posts, and Time Clock Procedures.
 Getty's S26AM Post Procedures, dated September 15, 2015, are for the entire Getty site which

also includes procedures to interact with the Tram, such as taking rides to ensure security on-board is acceptable. The procedures include: Opening Procedures, Closing Procedures, Additional Duties, Evacuation Procedures, Medical Emergencies, General Procedures All Posts, and Time Clock Procedures.

Getty's I14, I15, I21, I22, Job Aid – are procedures for Visitor Services Department which address securing the tram as necessary. Both procedures have the same training regarding the blue light stations, assigned radios, etc. The Tram's Blue Light Station has a mushroom which can be depressed to stop the train and phone that can be used by passengers which provides direct notification to the control room.

2. Getty Security formally reviews their procedures annually at a minimum. As training occurs the procedures are informally reviewed and revisions are made as-needed.
3. Getty Security provides all new hires with a safety/security training class: Tram Safety Training: Tram Shutdown and Evacuation, dated 11/30/2016. All Getty employees receive this as part of their initial training and are re-trained every two years. Items in the training include but are not limited to: keeping visitors a minimum distance from the guideway, how a blue light station works and its purpose, etc. Staff reviewed the following training records dated: 3-23-15, 4-15-15, 4-16-15, 5-7-16, 6-22-15, 4-20-16, and 6-8-16. Getty's Training Supervisor reviews employee records and notifies the Security Department Training Manager who is due for retraining, and the Training Supervisor schedules training. No exceptions were noted.
4. Incident Reports are generated for all incidents that occur on the Getty campus including tram shutdown, etc. Depending on the incident severity, the Risk Manager, Security Manager, and Safety Manager are immediately notified. All incidents are discussed at the weekly Security Managers meetings. Staff reviewed the Visitor's Service and Security Manager Meeting minutes from the November 2 & 30, 2016. No exceptions were noted.
5. Getty Security and Visitor Services perform a daily roll call at the beginning of every work shift. Following roll call, Managers brief their staff using a short training module known as "Take 5" to discuss events for the day, week, upcoming, etc. Security concerns are broadcast to staff at this point. Managers meet on a weekly basis. There are also Monthly Management meetings which are held for all managers and all issues are discussed and/or resolved.
6. Getty's Security Department provides periodic training, and officers assigned to the Post/Gates are constantly trained. Supervisors observe security officers performing their duties throughout the day. Getty has approximately 1.6 million visitors a year. Officers are told to trust their "gut instinct" and observe out of the ordinary situations. New officers are paired with mentors who teach them observation techniques. Training differs as time and situations change.
7. Getty's security issues and concerns are tracked via their Quarterly, Monthly and Weekly meetings. Staff reviewed the Visitor's Service and Security Manager Meeting minutes from the November 2 & 30, 2016.

Comments:

None.

Findings:

None.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	19	Subject	Hazardous Materials Programs
Date of Review	December 8, 2016	Department(s)	Risk Management & Otis
Reviewers/ Inspectors	Claudia Lam, Bill Lay; Rosa Muñoz	Person(s) Contacted	Linda Somerville (Getty Asst. Director of Insurance & Risk Management); Michael Rogers (Getty Director of Facilities); Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill) Charlie Hetland (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014
3. J. Paul Getty Hazard Communication Program

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Hazardous Materials Programs

1. Select at random three Otis Elevator employees responsible for handling hazardous materials and verify that they have received specific training for reporting requirements, product release or spill, and the response and cleanup of spill incidents.
2. Verify that hazardous materials discharge/spill reports for incidents that occurred during the past year have been prepared and filed.
3. Verify all Material Safety Data Sheets (MSDS) are available to all personnel who handle hazardous materials and on file with the Safety Department.
4. Verify that a procedure for response to hazardous material spills, clean up, and disposal exists.

RESULTS/COMMENTS

Activities:

1. Otis Elevator has three employees that handle hazardous materials and they are trained yearly on hazardous material training which is specific to the Otis Elevator Company "July Topic – Waste Handling & Disposal OSHA & WHMIS Hazard Communications Standards." Staff verified the last training was completed on May 26, 2016 by all three Otis Elevator employees.
2. Otis Elevator and Getty has verbally confirmed that no hazardous materials spill occurred in the last twenty years. In the event of any spill, personnel are directed to first notify security and security will notify other departments and issue an incident report. Report will be tracked by management to ensure proper disposal of hazardous material and closure of incident.
3. The SDSs, prior known as MSDSs, are kept in SDS pro-system database which is maintained and reviewed by Risk Management. Staff has verified that the SDS Pro System database can be accessed by all employees for all current hazardous material in facility. All past hazardous materials not currently used by the facility but previously used are archived for record keeping.
4. Staff verified that procedures are in place for hazardous material spills, clean up and disposal. Disposal of chemicals is completed by a third-party vendor in accordance to Chemical Hygiene Plan with prior approval.

Findings:

No findings.

Recommendations:

No recommendations.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY TRUST

Checklist No.	20	Subject	Drug and Alcohol Program
Date of Review	December 6, 2016	Department(s)	Human Resources
Reviewers/ Inspectors	Mike Warren	Person(s) Contacted	Nancy Gibson (Getty Director of Human Resources); Linda Somerville (Getty Asst. Director of Insurance & Risk Management); Michael Rogers (Getty Director of Facilities); Matt Angulo (Otis Service Sales Manager); OTIS HR Rep; John Simon (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. GO 143-B
3. J. Paul Getty Trust System Safety Program Plan (SSPP), dated November 2014
4. United Technologies Corporate Policy Manual, Section 8, Drug, Alcohol, and Substance Abuse” Policy, dated November 1, 1997.
5. National Elevator Bargaining Association Agreement with the International Union of Elevator Constructors, “Substance Abuse” Policy.

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Drug and Alcohol Program

Interview J. Paul Getty Trust representatives and review appropriate records prepared in the past 3 years to:

1. Verify the employees are pre-tested prior to employment with Getty.
2. Verify an Employee Assistance Program (EAP) is available for employees who seek assistance.
3. Verify if the policy manages the use of over-the-counter drugs.
4. Select at least two employees who tested positive for drugs or alcohol in the past 3 years and determine whether:
 - a. The employee was evaluated and released to duty by a Substance Abuse Professional (SAP);
 - b. How the employee was administered a return-to-duty test with verified negative results;
 - c. If follow-up testing is performed if required by the EAP according to required follow-up testing frequencies after the employee returned to duty.
 - d. Employees who retested positive are disciplined.

RESULTS/COMMENTS

Activities:

Staff interviewed Getty Trust Human Resources and Otis Human Resources representatives in charge of Drug and Alcohol Program and reviewed the following records and documentation.

- Getty
 1. Getty Security, Grounds, and Shuttle personnel receive pre-employment drug and alcohol testing
 2. Getty States an EAP is available to all employees through the Getty intranet (Getty Online (GO))

and through Getty Benefits.

3. Employees are prohibited from taking drugs that would impair judgement.
 4. Getty states only one employee has tested positive in the last 3 years
 - a. Employee ID#: 035051
 - b. Employee resigned before measures could be taken.
- Otis
1. Otis states the Otis Bargaining Unit agreement allows for drug testing under three conditions:
 - a. Pre-employment
 - b. Accident
 - c. Reasonable suspicion/probable cause
 - i. Internal or external
 2. Otis states an EAP available for employees through the Otis Intranet
 3. Otis does not have a policy for over-the-counter drugs
 4. No Otis employee at the Getty has received a positive test for the past 3 years.

Findings:

None.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	21	Subject	Procurement Process
Date of Review	December 8, 2016	Department(s)	Facilities & Otis
Reviewers/ Inspectors	Claudia Lam, Bill Lay; Rosa Muñoz	Person(s) Contacted	Linda Somerville (Getty Asst. Director of Insurance & Risk Management); Michael Rogers (Getty Director of Facilities); Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager); Matt Angulo (Otis Service Sales Manager); John Simon (CH2M Hill); Charlie Hetland (CH2M Hill)

REFERENCE CRITERIA

1. General Order 164-D
2. J. Paul Getty Center Tram System Safety Program Plan (SSPP), dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Procurement Process

Through interviews and review of procedures and records for the last three years, determine if:

1. Getty has a procurement procedure that is monitored and enforced to preclude the introduction of unauthorized hazardous materials and supplies, as well as defective or deficient equipment.
2. The Otis Elevator and Facilities Department ensures that product vendors meet requirements related to safety.
3. Procedures are in place to address defective or deficient equipment in case such equipment is introduced into the Getty Tram system and is brought to the attention of the general management.

RESULTS/COMMENTS

Activities:

1. The Risk Management Department (Department) is in charge of all hazardous materials introduced onto the facility. All new hazardous materials must be approved by the Department prior to being brought onsite. All existing hazardous materials that were previously approved do not need to be approved by the Department. The Department has incorporated a training program to reinforce and to refresh policies of handling and introducing hazardous materials in the facility. As for the defective/deficient equipment, there are monthly meetings to review equipment that needs to be replaced.
2. The Otis Elevator and Facilities Department (Otis) maintains a database of product vendors for replacement parts that meet the safety requirements of the tram manufacturer and the Getty. When ordering replacement parts for repair, Otis will contact its own service center for minor parts. In the event the part is not available, Otis will communicate with Getty for approval before ordering replacement parts to ensure all safety related aspects are met and not compromised with the replacement part.
3. Otis and the Getty maintain an open communication for all tram related items. In the event of defective/deficient equipment, Otis will communicate with Getty to order replacements parts

that meet the safety requirements of the tram manufacturer and the Getty. Otis and the Getty meet monthly to discuss tram related items.

Findings:

No findings.

Recommendations:

No recommendations.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	22	Subject	CPUC GO 172 – Personal Electronic Device Prohibitions/In-cab Cameras
Date of Review	December 7, 2016	Department(s)	Facilities, Security & Visitor Services, & Otis
Reviewers/ Inspectors	Joey Bigornia, Howard Huie, Varoujan Jinbachian, Daniel Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Bob Combs (Getty Director of Security & Visitor Services); Linda Somerville (Getty Asst. Director of Insurance & Risk Management) Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager);

REFERENCE CRITERIA

1. GO 172-A
2. J PAUL GETTY TRUST System Safety Program Plan (SSPP), Dated November 2014

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

CPUC General Order (GO) 172 - Personal Electronic Device Prohibitions/In-cab Cameras Compliance

Interview Getty representatives and review appropriate documentation to determine the following:

1. Verify Getty a zero-tolerance policy for personal electronic device usage is in-place, and that employees who violate this policy are being properly disciplined by J Paul Getty.
2. Verify that J Paul Getty is conducting periodic operational evaluations and inspections for potential GO 172 violations and records are retained and documented.
3. Verify Getty has a PED policy and documentation of instruction and training on its requirements.
4. Getty employees receive reinstruction every 2-years.

RESULTS/COMMENTS

Activities:

1. Getty has a zero tolerance policy for PED usage. Staff was provided with Getty's **Guide for Security Personnel**, page 5, Prohibited Activities and Getty's **Guide for Security Visitor Services Personnel** page 4, Prohibited Activities identifies usage of PED only during non-break times. Staff was also provided a photo of a sticker on the door entrances to the Security control room which prohibits the use of personal electronic devices/equipment while on duty. Staff later visited the Security control room and verified the sticker applied on the door entrances.
2. Not Applicable, see Findings.
3. See 1 above.
4. Training occurs for Security and Visitor Services personnel on as-needed basis. There is no official document to transmit this however it is reiterated on a daily basis.

Findings:

No findings of non-compliance.

As stated in the Findings for Checklist 16, Staff found there is no PED training for Otis Personnel (the contractor). However, Getty has a PED policy for its employees. GO 172 is intended for rail transit system operators, who must devote their full attention to operating the vehicle. However, this is not the

case with Getty's APM, which as the name implies is an automated system that does not have a human operator. Getty's Security Control Room security guards monitor security cameras that view the tram and other areas, and as such are not required to focus their full attention on operating the tram. Accordingly, the provisions of GO 172 are not directly applicable to the Getty Tram's operations. These provisions are enforced indirectly by Getty's general policy prohibiting PED use applies to activities including those of the security guards. In addition to the security guards in the Security Control Room, at the two stations for the tram there are staff who monitor both the tram and passengers and have access to an emergency tram stop button. They are also subject to Getty's general policy prohibiting PED use.

Recommendations:

None.

2016 CPUC SYSTEM SAFETY REVIEW CHECKLIST FOR J PAUL GETTY CENTER TRAM

Checklist No.	23	Subject	CPUC GO 175 – Rules and Regulations Governing Roadway Worker Protection Provided by Rail Transit Agencies and Fixed Guideway Systems
Date of Review	December 7, 2016	Department(s)	Risk Management & Otis
Reviewers/Inspectors	Joey Bigornia, Howard Huie, Varoujan Jinbachian, Daniel Kwok	Person(s) Contacted	Michael Rogers (Getty Director of Facilities); Bob Combs (Getty Director of Security & Visitor Services); Linda Somerville (Getty Asst. Director of Insurance & Risk Management); Michael Lotito (Getty Engineering Manager); Jeff Sanders (Otis Operations Manager)

REFERENCE CRITERIA

1. GO 175-A
2. J Paul Getty Trust System Safety Program Plan (SSPP), Dated November 2014.

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

CPUC General Order (GO) 175 Rules and Regulations Governing Roadway Worker Protection Provided by Rail Transit Agencies and Fixed Guideway Systems

Interview J Paul Getty Trust representatives and review appropriate documentation to determine the following:

Part 1: General Topics

1. Ask Getty to describe their program(s) aimed at ensuring roadway worker protection is in accordance with G.O. 175.
2. Verify that Getty has created a separate procedure that includes all necessary roadway worker safety procedures and rules.
3. Verify that Getty requires anyone going to access the guideway (by request, easement, or other form of permission) to either complete the LOTO process, or be escorted by a RWP-trained employee that employs the LOTO procedure.

Part 2: Roadway Worker Protection Training

1. Verify that Getty has adopted a Roadway Protection (RWP) training program aimed at educating workers about the hazards of working along the right-of-way, as well as the methods to safely work on the right-of-way.
 - a) Request that Getty describe their RWP training program.
 - b) Ensure that the training program includes classroom training
 - c) Ensure that the training program covers Getty's rules and procedures.
2. Ensure that no employees whose duties are those of a rail worker are required to perform work without training.
 - a) Request that Getty provide roll call sheets or any other documentation verifying the attendance of staff at RWP training/re-training sessions, for the time period of three years ago to the present.

- b) Select several employees at random, preferably with different job classifications, and confirm their attendance a RWP training course at intervals of 24 months, or more frequently.
 - c) Verify that records of training are retained by the RTA for at least 3 years.
3. Does the RWP training courses provide an opportunity for trainees to raise and discuss issues regarding the effectiveness of the program.

Part 3: Near-Miss Reporting Programs and Record Keeping

- 1. Assure Getty has in its program, a process for reporting and recording near-misses regarding roadway worker protections and retains records for at least 3 years.

RESULTS/COMMENTS

Activities:

Part 1:

- 1. Getty has a formal procedure titled **Control of Hazardous Energy Program: Lockout/Tagout (LOTO)**, dated October 2015, for their guideway worker protection program. Employee training occurs on an Annual Basis. Redundancy protection exists for both Getty and OTIS employees on the power system. LOTO retraining is required every three years. Practical audit is part of the retraining, and annually audited. Otis locks out switches and Getty locks out power. Otis does not leave the site until they lock out the tram. Otis and Getty notify the Control Room when system is locked out. Control Room permission is required to enter the guideway.

Staff was provided with the **Procedure for Painting of Tram by Third Party Painters**. Painters are the only third party vendor that performs work on the guideway. Painting occurs after Otis maintenance work is completed. The Control Room operator is responsible for all LOTO operations and communication. All power is shut down and Getty's and Otis locks are attached on the lockout handles. Otis LOTO requires the power off for anyone entering the guideway. Communication occurs via radio and visual contact of workers going into to perform work. Every February employees are brought in for on-the-job (field toolbox) discussions. OTIS **NSAA Environmental Health & Safety**, dated 1/25/12 document includes information on this. The Weekly Training Report for Service was provided by Otis for Year 2016. No exceptions were noted.

Staff also reviewed:

- **OTIS 2016 Environment, Health, Safety Weekly Training Manual**
- **OTIS Elevator RF-7 Fatality Prevention Guide**, dated February 2010, which includes LOTO Procedures

- 2. Getty does not have a GO 175-compliant RWP program. There is related information in their **Control of Hazardous Energy Program: Lockout/Tagout (LOTO)** manual.
- 3. Everyone is subject to the LOTO policies.

Part 2:

- 1. See answer to Part 1, Question 1.
- 2. Getty presented sign-in sheets for training Safety Training on **Control of Hazardous Energy (LOTO) Tram**. The training dates are November 12, 2015 (has 12 participant signatures) and February 6, 2014 (has 13 participant signatures)
- 3. Getty stated they provide question and answer (Q&A) session at the end of training. Getty did not have any training material that specifically indicated a Q&A session. Otis monthly and annual training is brought up immediately after training.

Part 3:

1. All Getty staff (Getty Engineering, Getty Security, Otis, and Getty Grounds) have radios and are required to immediately report incidents. All incidents are reported to security first then sent out to other departments. Getty Security generates a report for every incident, no matter how minor. Records are retained in excess of four years. In addition, Tram incidents are discussed at the quarterly staff meetings. There has not been a near miss guideway incident reported since the tram started operating.

Findings:

Staff has found that the Getty has a Worker Guideway Protection Program and Lockout/Tag-out Procedure. Although the program may not meet the specific requirements of GO-175, the Getty program appears to provide an equivalent level of safety required by GO-175 in light of the fact that the Getty tram does not have an operator/driver on-board the vehicle.

Recommendations:

The Getty should submit its Worker Guideway Protection Program to the CPUC for review.