

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Safety and Enforcement Division
Rail Transit Safety Branch

Resolution ST-181
December 17, 2015

RESOLUTION

RESOLUTION ST-181 GRANTING APPROVAL OF THE
SAN FRANCISCO BAY AREA RAPID TRANSIT
DISTRICT SAFETY AND SECURITY CERTIFICATION
PLAN FOR THE HAYWARD MAINTENANCE
COMPLEX PROJECT

SUMMARY

This Resolution grants the request of the San Francisco Bay Area Rapid Transit District for approval of the Safety and Security Certification Plan for the Hayward Maintenance Complex Project.

BACKGROUND

Commission General Order 164-D, *Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems*, Section 11, Requirements for Safety Certification Plan, requires that each Rail Transit Agency (RTA) prepare a project-specific Safety Certification Plan (SCP) for each major project and ensure that all entities involved in design, construction, operation, and maintenance of the project comply with the safety certification process.

The purpose of the SCP is to describe organizational authority and responsibilities, safety certification activities and processes, and documentation requirements and responsibilities. The SCP lists safety critical items and activities that require verification such as safety equipment functionality testing and safety-related operational and/or maintenance training. In accordance with General Order 164-D, Section

10, a Safety Certification Verification Report (SCVR) is issued by the RTA at project completion as verification of SCP compliance. The SCVR must be approved by the California Public Utilities Commission (CPUC) staff before the project can be placed in service.

On January 8, 2015, the San Francisco Bay Area Rapid Transit District (BART) submitted its plan titled "Safety Certification Plan for the Hayward Maintenance Complex Project" to staff for review and requested Commission approval.

Staff reviewed and analyzed the BART SCP and found that it meets SCP requirements set forth in General Order 164-D and Rail Transit Safety Branch (RTSB) Program Management Standard Procedures Manual, State Safety and Security Oversight of Rail Fixed Guideway System, Section 9.

DISCUSSION

Project Description

The San Francisco Bay Area Rapid Transit District is a high-speed inter-city and metropolitan rail transit system. It consists of 44 stations and over 100 miles of trackway in four counties. It provides transit service to an average of 365,000 passengers per day.

The Hayward Maintenance Complex (HMC) Project will convert the existing Hayward Main Shop to a primary vehicle maintenance shop. In addition, the Hayward Yard will be expanded through acquisition and improvement to three parcels with four warehouse buildings on the west side of the existing Hayward Yard. The yard expansion will provide new, centralized facilities for component repair, parts warehousing, vehicle level overhaul, and right-of-way maintenance and engineering.

This safety certification includes the work involved under the HMC Project that will be constructed under multiple contracts, as described below:

1. The Hayward Main Shop Modifications consists of relocating the existing truck and wheel/axle shop equipment to the new Component Repair Shop; furnishing and installing three (3) new vehicle lift systems in the main shop; furnishing and installing four (4) new vehicle lift systems in the back shop; installing

- approximately 3,800 feet of new track on the west side of the back shop with supporting systems; and installing new access tracks on both the north and south entrances to the back shop.
2. The new Component Repair Shop includes demolition of Building 3; construction of a slab on grade, steel-framed 126,000 square foot industrial building with a 32,000 square foot second floor mezzanine; build-out, finish and testing of shop space, storage areas, administrative areas and employee facilities; installation and testing of the new truck and wheel/axle shop equipment and a few relocated from the Hayward main Shop; and installation and testing of two new wheel presses to be provided. The major functions that will be carried out in this new Component Repair Shop are vehicle truck repair and rebuilding; component repair and testing; heavy component repair; electro-mechanical repair; and electronic repair.
 3. Site, track, and systems work south of Whipple Road consists of installing approximately 7,200 feet of new track on the south end of the parcels that will provide yard access to the existing mainline tracks with supporting systems and a new sound wall. Rail and switch procurement will be provided under separate contracts. Two new accesses to the facilities will be constructed from the existing BART access road on the north and Whipple Road from the south.
 4. The Central Warehouse (Building 2) and the M&E Shop (Building 1) will be seismically upgraded and retrofitted for BART use when funding is available.
 5. The construction of a new Vehicle-level Overhaul Shop.

Project Safety Certification

BART's SCP describes the processes, responsibilities, documentation, and procedures needed for certification. The intent of the SCP is to define the safety certification management including organizational authority and responsibilities, safety certification activities, processes and procedures. Additionally, it provides a framework for ensuring that appropriate safety-related activities are performed and documented to support each Certificate of Compliance that will be issued. The SCP may be revised and expanded as the project progresses.

The SCP objectives are to ensure that the following safety requirements have been satisfied:

1. Facilities and equipment have been designed, constructed, installed, inspected, and tested in accordance with applicable codes, standards, criteria, and specifications.
2. Procedures, rules, and other documentation have been adequately developed or reviewed and modified as necessary, by the Contractor.
3. BART Systems Operations and Maintenance personnel have been trained and are certified to perform their respective functions.

BART, through the HMC Project Team and the Project Safety Certification Engineer, is responsible for self-certifying safety of the HMC Project and for providing evidence of safety certification to the CPUC prior to commencement of revenue service/facility occupancy. In turn, BART will require Certificates of Compliance signed by individuals responsible for ensuring conformance with identified safety requirements. When all the required system elements are certified, key safety certification documentation will be issued to the CPUC.

The certification program scope encompasses safety certification of the equipment, facilities, safety-related procedures, and training programs for the HMC Project. The process is categorized into distinct factors throughout the advancement of the project. Specifically, certification focuses on four “Certifiable Factors”:

Certifiable Factors:

1. Fire/Life Safety Design Construction Conformance
2. Occupational Safety Conformance
3. Operational Safety Conformance
4. Safety Related Testing Conformance

Some or all of the four Certifiable Factors will apply to each of the six different major components customized for each contract, which are

referred to as the “Certifiable Elements.” Specifically, the six Certifiable Elements are:

Certifiable Elements:

1. Hayward Main Shop Modifications
2. Component Repair Shop
3. Central Warehouse
4. Maintenance & Engineering Shop
5. Vehicle Level Overhead Shop
6. Trackwork.

Certificates of Compliance required for the various components necessitate the performance of a variety of system safety and fire/life safety activities. The activities may be performed either independently, or integrated with other tasks such as acceptance testing or quality control measures. Regardless of whether the activities are performed independently or integrated with others, adequate system safety and fire/life safety activity records must be developed and maintained as evidentiary support for Certificates of Compliance.

The SCP will be updated as required. Changes may be proposed by any department and submitted in writing to the BART Chief Safety Officer, System Safety Department for review and consideration.

The HMC Project Manager and BART Chief Safety Officer approve minor changes. Major changes require thorough review and approval by all signature authorities of the SCP. The BART Safety Department shall submit any revision of the SCP to the CPUC staff for approval.

Staff reviewed the HMC Project SCP in accordance with General Order 164-D Section 9, *Requirements for Safety Certification Plan*. The SCP is in compliance with General Order 164-D and staff recommends that the Commission grants approval of the BART SCP. Staff will review and approve updates and revisions to the SCP as the project progresses.

NOTICE

On November 13, 2015, this Resolution was published on the Commission's Daily Calendar.

COMMENTS

The draft resolution of the Safety and Enforcement Division in this matter was mailed in accordance with Section 311 of the Public Utilities Code and Rule 14.2(c) of the Commission's Rules of Practice and Procedure. No comments were received.

FINDINGS

1. The BART Hayward Maintenance Complex Project is intended to convert the existing Hayward Main Shop to a primary vehicle maintenance shop. In addition, the HMC Project is intended to expand the Hayward Yard to provide new, centralized facilities for component repair, parts warehousing, vehicle level overhaul, and right-of-way maintenance and engineering.
2. On January 8, 2015, the District submitted the SCP for the BART Hayward Maintenance Complex Project for staff review and requested Commission approval.
3. RTSB staff analyzed and evaluated the SCP and found that it meets the requirements set forth by General Order 164-D Section 11 and RTSB Program Management Standard Procedures Manual, State Safety and Security Oversight of Rail Fixed Guideway Systems, Section 9.
4. The BART Hayward Maintenance Complex Project's SCP will be updated and revised as necessary, as the project progresses, upon staff's approval.

THEREFORE, IT IS ORDERED THAT:

1. The request of the San Francisco Bay Area Rapid Transit District for approval of the Safety Certification Plan for the Hayward Maintenance Complex is granted.

2. The San Francisco Bay Rapid Transit District shall file revisions of the Safety Certification Plan with California Public Utilities Commission staff for review and approval.
3. The San Francisco Bay Rapid Transit District shall submit the Safety and Certification Verification Report to California Public Utilities Commission staff as required by the Commission General Order 164-D, Section 12, at least 21 days prior to placing the facility in service.
4. This resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed, and adopted by the Commission at its regularly scheduled meeting on December 17, 2015. The following Commissioners voted favorably thereon:

TIMOTHY J. SULLIVAN
Executive Director