

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Rail Safety and Carriers Division
Rail Engineering Safety Branch
Rail Transit Safety Section

Resolution ST-44
Date: December 2, 1999

RESOLUTION

RESOLUTION ST-44. AMENDS GENERAL ORDER No. 164-A BY INTRODUCING THE CHANGES PRESENTED IN APPENDIX A. THE AMENDED GENERAL ORDER IS PRESENTED IN APPENDIX B. IT SHALL BE DESIGNATED AS GENERAL ORDER No. 164-B.

SUMMARY

Three years of experience with the rules and regulations in General Order No. 164/164-A clearly shows that they need to be updated. Appropriate changes have been drafted by the Commission staff to clarify terms and conditions, achieve full compliance with Federal Transit Administration requirements, and to generally improve implementation of the Commission's rail transit safety oversight program. The draft changes have been reviewed and concurred with by the six California rail transit agencies that must comply with them. The proposed changes are shown in Appendix A, and the amended General Order No. 164-B is shown in Appendix B.

BACKGROUND

The Commission adopted General Order No. 164, Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems on September 20, 1996. This action by the Commission was in direct response to the Federal Transit Administration's Final Rule 49 CFR, Part 659 (effective January 26, 1996) which requires the States to perform safety oversight of rail fixed guideway systems. For the past three years, ever since General Order No. 164 was adopted, the Commission's Rail Transit Safety Section has been actively applying the rules and regulations of the general order while overseeing the implementation of the Commission required system safety program plans used by each of California's six rail transit agencies. The experience gained during this three year period clearly shows that the rules and regulations in the current

version of the General Order (No. 164-A, amended September 3, 1997 to include security requirements) need to be updated. The needed changes vary from simple editorial modifications to clarify certain terms and conditions, to more extensive changes that need to be made to achieve full compliance with the baseline requirements in the Federal Transit Administration's Final Rule 49 CFR, Part 659. Changes are also needed to improve overall implementation of the Commission's rail transit safety oversight program by simplifying the requirements for processing various reports, records and other documents. All of the proposed changes have been reviewed and concurred with by the six California rail transit agencies that must comply with them. The proposed changes are shown in the marked up draft copy of General Order No. 164-B contained in Appendix A. The purpose and impact of each change are explained in the discussion which follows.

DISCUSSION

A draft copy of General Order No. 164-B marked up to show all of the proposed changes from the current General Order No. 164-A is presented in the accompanying Appendix A. The underlined text indicates an addition, and the crossed out text indicates a deletion. An explanation of the purpose for each substantive change, and the expected effect or impact each such change will have on the transit agencies that must comply with General Order No. 164-B, are presented below:

1. GENERAL PROVISIONS

Purpose: The purpose for adding 1.5 Preemption of Other Commission General Orders is to make it clear that the accident reporting requirements outlined in Sections 15 and 16 of General Order No. 143-A, Safety Rules & Regulations Governing Light-Rail Transit, have been superseded by those appearing in General Order No. 164-B.

Impact: This change will prevent a conflict from being created between the new accident reporting requirements in General Order No. 164-B and those that currently exist in General Order No. 143-A.

2. DEFINITIONS

Purpose: The purpose of the three new definitions 2.2 Fatality, 2.3 First Aid, and 2.9 Serious Injury is to clarify the threshold values for reporting accidents. The purpose for adding 2.5 Immediate Notification is to

eliminate the ambiguity associated with the word "immediate" by establishing a specific time limit for reporting accidents.

Impact: These four new definitions will clarify, but not substantively change, the threshold value and time limit requirements for reporting accidents and unacceptable hazardous conditions.

3. REQUIREMENTS FOR SYSTEM SAFETY PROGRAM PLANS

Purpose: The purpose for introducing the changes to 3.3 is to improve the processing of routine submittals of system safety program plan revisions by assigning this task to the Commission staff.

Impact: These changes will expedite the processing of system safety program plan revisions submitted by the rail transit agencies.

4. REQUIREMENTS FOR INTERNAL SAFETY AUDITS

Purpose: The purpose for adding the word "annually" to 4.1 is to stress the fact that the internal safety audit program must be conducted on an annual basis. The new 4.2 and the additions/deletions to 4.3 are intended to clarify the currently unstated but generally understood position and expectations of the Commission for scoping and scheduling internal safety audits as outlined in the APTA Guidelines, and as required by the FTA.

Impact: These changes to 4.1, 4.2 and 4.3 will better define the already existing FTA requirements for scoping and scheduling the internal safety audits that must be conducted annually by each transit agency. The changes will not add any new requirements.

5. REQUIREMENTS FOR REPORTING ACCIDENTS AND UNACCEPTABLE HAZARDOUS CONDITIONS

Purpose: The purpose of each change introduced to this section follows:

5.2 "e-mail" was added to permit a third method of reporting.

5.2(a) The words "requiring transportation to a medical facility by ambulance or police vehicle for medical treatment" were deleted to accommodate the new definition 2.9 Serious Injury added to Section 2.

- 5.2(c) The phrase "any accident that results in property damage in excess of \$100,000" has been moved to 5.2(c) from 5.3(d). The purpose is to effect more timely reporting of major accidents by changing the time limit for reporting accidents of this type from 30 days after the last day of the month in which the accident occurred to within 4 hours of when the accident occurred.
- 5.2(d) The phrase "which has been identified by the transit agency and which could cause death or injury to passengers or employees if not immediately corrected" has been deleted to make it clear that all unacceptable hazardous conditions, without any limiting qualifications, must be immediately reported to the Commission.
- 5.3(a) Adding "notification by" and deleting "notification" is a simple editorial change.
- 5.3(b) The underlined qualifying phrases in this paragraph were added to unburden the rail transit agencies from having to classify minor traffic incidents as reportable accidents.
- 5.3(c) The deleted words in this paragraph have been replaced by the underlined qualifying phrases added to 5.3(b). See 5.3(b) above for an explanation of the purpose of this change.
- 5.3(d) The deleted words in this paragraph have been moved to 5.2(c). See 5.2(c) above for an explanation of the purpose of this change.

Impact: The impact of each change introduced to this section follows:

- 5.2 This change will make it a little easier for the transit agencies to meet the requirement for immediate reporting.
- 5.2(a) This change will have no significant impact on the affected transit agencies.
- 5.2(c) This change will require the rail transit agencies to report accidents that result in property damage of \$100,000 or more in a more timely manner than is currently required.
- 5.2(d) This change will eliminate any ambiguities about the kinds of unacceptable hazardous conditions that must be immediately reported to the Commission.

- 5.3(a) This editorial change will have no significant impact on the affected transit agencies.
- 5.3(b) & (c) Taken together, these changes will simplify the reporting and record keeping requirements for both the rail transit agencies and the Commission staff. They will also improve the quality of the statistical accident data collected and reported by the Commission.
- 5.3(d) This change will require the transit agencies to report accidents that cause major property damage in a more timely manner.

6. REQUIREMENTS FOR INVESTIGATING ACCIDENTS AND UNACCEPTABLE HAZAROUS CONDITIONS

Purpose: The purpose of each change introduced to this section follows:

- 6.1 adding "all reportable accidents" and deleting "and reportable accidents" is a simple editorial change with no substantive effect on existing requirements.
- 6.2 The underlined words in this new paragraph have been added to require the transit agencies to prepare written accident investigation procedures for the Commission staff's review and approval. The purpose of this new requirement is to strengthen an area of weakness in General Order No. 164-A made apparent by the Commission staff's safety oversight of all six California rail transit agencies during the past three years.
- 6.3 There are several purposes for the changes in this paragraph and the subparagraphs (a) through (e). They are:
- to limit formal investigations of accidents by the transit agencies to serious accidents only, i.e. those that are immediately reportable. See 6.4 below for an exception;
 - to clarify the requirements for Commission staff participation in formal investigations of accidents and unacceptable hazardous conditions;
 - to clarify the requirements for preparation of investigation reports, corrective action plans and schedules by the transit agencies; and

- to establish a time line for submittal of investigation reports, corrective action plans and schedules by the transit agencies.

6.4 The purpose of this new paragraph is to eliminate the requirements for formal investigations, investigation reports, corrective action plans, and schedules for non serious accidents except when, because of a particular safety concern, the Commission staff specifically requests the transit agency to conduct a formal investigation.

Impact: The impact of each change introduced to this section follows:

- 6.1 This change will have no significant impact on the affected transit agencies.
- 6.2 Five of the six California rail transit agencies already have written investigation procedures in place. The one that doesn't recognize the need for such a procedure, and is in the process of preparing it. The requirement for formal review and approval will increase the Commission staff's workload, but should not place a significant burden on the transit agencies.
- 6.3 Limiting the requirements for formal accident investigations to serious accidents only should significantly reduce the paperwork that must be prepared and processed by the transit agencies. When formal investigations are necessary, the requirements for Commission staff involvement, investigation reports, corrective action plans and schedules will be more clearly stated than they are at present.
- 6.4 The few times, if ever, that the Commission staff may require a formal investigation of a non serious accident will cause this change to have little or no impact on the affected transit agencies.

PROTESTS

A draft copy of this resolution was sent to the six affected California rail transit agencies on October 18, 1999. It was requested that comments, including any objections, be returned by November 12, 1999. All of the comments that were returned have been resolved through discussions with the reviewer. Agreed upon changes that resulted from these discussions are incorporated in the draft General Order No. 164-B presented in Appendix B to this resolution. There were no objections. There are no known protests.

In addition and pursuant to Public Utilities Code Section 311(g)(1), this resolution was served on all known Interested parties on October 22, 1999 for public review and comment 30 days or more prior to the Commission vote.

FINDINGS

1. Experience gained by the Commission staff with General Order No. 164 (effective September 20, 1996) and No. 164-A (amended September 3, 1997) clearly shows that the rules and regulations need to be updated.
2. Proposed changes to update and improve the general order have been prepared by the Commission staff.
3. The proposed changes have been reviewed and concurred with by the six California rail transit agencies that must comply with them.
4. The amended General Order, to be designated No. 164-B, is presented in Appendix B.

THEREFORE, IT IS ORDERED that:

General Order No. 164-A be amended as shown in the accompanying Appendix B and renumbered as General Order No. 164-B.

I certify that this Resolution was adopted by the Public Utilities Commission at its regular meeting on December 2, 1999. The following Commissioners approved it:



Executive Director

Richard A. Bilas
President
Henry M. Duque
Josiah L. Neeper
Joel Z. Hyatt
Carl W. Wood
Commissioners

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GENERAL ORDER NO. 164-BA
(Supercedes General Order No. 164-A)

**PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

**RULES AND REGULATIONS GOVERNING STATE SAFETY OVERSIGHT OF
RAIL FIXED GUIDEWAY SYSTEMS**

Adopted September 20, 1996. Effective September 20, 1996.

(D. 96-09-081 in R. 96-04-021)

Amended September 3, 1997. Effective October 1, 1997.

Resolution No. ST-27

Amended December 2, 1999. Effective December 2, 1999.

Resolution ST-44

IT IS ORDERED that the following rules and regulations governing the safety oversight of rail fixed guideway systems shall hereafter be observed in this State unless otherwise directed by the Commission.

1. GENERAL PROVISIONS

- 1.1 *Authority.* These rules and regulations are authorized by and implement the provisions of 49 U.S.C. 5330, Section 99152 of the Public Utilities Code, and Title 49 of the Code of Federal Regulations, Part 659, Rail Fixed Guideway Systems, State Safety Oversight, Final Rule.
- 1.2 *Applicability.* These rules and regulations are applicable to all transit agencies operating rail fixed guideway systems in California.
- 1.3 *Additional Rules.* The Commission may make such additional rules and regulations or changes to these rules and regulations as necessary for the purpose of safety.
- 1.4 *Exemptions or Modifications.* Requests for exemptions from or modifications of these rules and regulations shall contain a full statement of the reasons justifying the request and demonstrating that safety is not reduced thereby. Any exemption or modification so granted shall be limited to the particular matter covered by the

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request.

1.5 Preemption of Other Commission General Orders. The accident reporting requirements in this general order supercede those in Sections 15.01, 15.02, 15.03 and 16.01 of General Order No. 143-A.

2. DEFINITIONS

2.1 APTA Guidelines means the American Public Transit Association's "Manual for the Development of Rail Transit System Safety Program Plans," published on August 20, 1991.

2.2 Fatality means the death of a person at the scene of an accident, or the transit agency knows that the person died within 30 days of the incident from injuries related to the accident.

2.3 First aid means medical attention for minor conditions such as abrasions, cuts, or bruises, and is typically confined to a single treatment.

2.2.4 Hazardous condition means a condition that may endanger human life or property. It includes unacceptable hazardous conditions.

2.5 Immediate notification means as soon as possible, but not to exceed 4 hours.

2.32.6 Rail fixed guideway system means any light, heavy, or rapid rail system, monorail, inclined plane, funicular, trolley, or automated guideway that is:

(1)(a) Included in the Federal Transit Administration's calculation of fixed guideway route miles or receives funding under FTA's formula program for urbanized areas (49 U.S.C. 5336); and

(2)(b) Not regulated by the Federal Railroad Administration.

2.42.7 Safety means freedom from danger.

2.52.8 Security means freedom from intentional danger.

2.9 Serious injury means an injury that requires the individual to be transported to a medical facility for medical treatment, beyond medical observations, diagnostic procedures such as X-rays and drawing blood samples, or first aid.

2.62.10 System safety program plan means a document adopted by the transit agency detailing its safety and security policies, objectives, responsibilities, and procedures.

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2.72.11 *Transit agency* means an entity operating a rail fixed guideway system.

2.82.12 *Unacceptable hazardous condition* means a hazardous condition determined to be an unacceptable hazardous condition using the APTA Guidelines' Hazard Resolution Matrix (APTA Guidelines, checklist number 7).

3. REQUIREMENTS FOR SYSTEM SAFETY PROGRAM PLANS

- 3.1 Each transit agency shall prepare a system safety program plan. The plan shall conform to the APTA Guidelines and these rules and regulations.
- 3.2 The system safety program plan shall address the personal security of the rail transit agency's passengers and employees. The Federal Transit Administration's final report FTA-MA-90-7001-94-1, *TRANSIT SYSTEM SECURITY PROGRAM PLANNING GUIDE*, dated January 1994, shall serve as a set of guidelines for preparation of the security portion of each rail transit agency's system safety program plan. Procedural details that the rail transit agency classifies as confidential information to prevent or mitigate breaches of security shall not be revealed in the system safety program plans. Each rail transit agency shall submit the security portion of its system safety program plan to the Commission for approval prior to January 1, 1998, or the date it begins operations, whichever is later.
- 3.3 The system safety program plan, ~~including any subsequent revision,~~ shall be submitted to the Commission staff for review and approval by the Commission. Subsequent revisions of the system safety program plan shall be submitted to the Commission staff for review and approval.
- 3.4 Each transit agency's system safety program plan shall describe the controls used to maintain effective communications and liaison with the Commission staff for reporting and investigating accidents and unacceptable hazardous conditions, submitting corrective action plans and annual internal safety audit reports, and facilitating on-site safety reviews by the Commission staff.
- 3.5 The Commission staff may perform inspections, investigations, and reviews of the design, construction, operation, and maintenance of

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each rail fixed guideway system to assess whether the actual safety and security procedures and practices of the transit agency comply with its system safety program plan.

- 3.6 At least once every three years, the Commission staff shall conduct an on-site review of the implementation of each transit agency's system safety program plan to verify compliance with and evaluate the effectiveness of the plan. The Commission staff may conduct the on-site review with its own personnel or by employing the services of another organization other than the transit agency.
- 3.7 Following each on-site review, the Commission will issue a decision based upon the Commission staff findings and recommendations, including an analysis of the efficacy of the system safety program plan and the need, if any, for updating the plan.

4. INTERNAL SAFETY AUDIT REQUIREMENTS

- 4.1 Planned and scheduled internal safety audits shall be performed annually by each transit agency to evaluate compliance and measure the effectiveness of its system safety program plan.
- 4.2 All of the organizational elements described in the Internal Safety Audit Process section of the APTA Guidelines shall be included in the scope of the activities to be audited by each transit agency. This total scope must be completely covered by the internal safety audits conducted within a 3-year period, and every 3-year period thereafter.
- 4.3 Each transit agency shall prepare a schedule of internal safety audits to be performed during each calendar year. This schedule, including any subsequent changes, The transit agency's internal safety audit schedule shall be submitted to the Commission staff before any of the scheduled each audits are is begun.
- 4.3.4 Each internal safety audit shall be performed in accordance with a-written checklists by personnel technically qualified to verify compliance and judge the effectiveness of the system safety program plan activity being audited. The auditors may be organizationally assigned to the unit responsible for management of the activity being audited, but they must be independent from the first line of supervision responsible for performancing of the activity being

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audited.

4.4.5 Each internal safety audit shall be documented in an annual report that covers the audits performed during each calendar year. The annual report shall state the results of each audit in terms of the adequacy and effectiveness of the system safety program plan. The annual report for the internal safety audits performed during the preceding year shall be submitted to the Commission staff prior to the 15th of February each year.

5. REQUIREMENT FOR REPORTING ACCIDENTS AND UNACCEPTABLE HAZARDOUS CONDITIONS

- 5.1 Each transit agency shall submit accident and unacceptable hazardous condition reports to the Commission staff. A reportable accident is one which exceeds the thresholds established in the following paragraphs and which is associated with the operation of rail transit vehicles and other on-track equipment at any location in the system; including at grade crossings, station platforms, mainline and yard tracks.
- 5.2 Each transit agency shall immediately notify the Commission staff of the following classes of accidents and unacceptable hazardous conditions by telephone, e-mail or FAX:
- (a) Any event resulting in a fatality or serious injury; ~~requiring transportation to a medical facility by ambulance or police vehicle for medical treatment;~~
 - (b) Any fire or other hazardous event that requires the evacuation of passengers or requires fire suppression activities conducted by a fire department; ~~and~~
 - (c) Any accident that results in property damage in excess of \$100,000; and unacceptable hazardous condition which has been identified by the transit agency and which could cause death or injury to passengers or employees if not immediately corrected.
 - (d) Any unacceptable hazardous condition.
- 5.3 Each transit agency shall submit written accident and unacceptable hazardous condition reports on forms prescribed by the Commission staff. Such written reports shall be submitted within 30 days after the last day of the month in which the accident occurred or the

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unacceptable hazardous condition was discovered. Written reports shall be filed for all unacceptable hazardous conditions and the following classes of accidents:

- (a) Any accident requiring immediate notification by telephone, e-mail or FAX notification;
- (b) Any derailment or collision between rail transit vehicles, or between rail transit vehicles and other on-track equipment, or between rail transit vehicles and motor vehicles, that meet either of the following two conditions:
 - 1. The rail transit vehicle or other on-track equipment is removed from service or rendered unavailable for service due to damage which must be repaired before it can be returned to service; and
 - 2. The motor vehicle is removed from the scene by a tow truck or other means due to damage which precludes it from being safely operated.
- (c) ~~Any accident involving impact between rail transit vehicles and motor vehicles, pedestrians or other persons; and~~
- (d) ~~Any accident which causes property damage in excess of \$100,000.~~

5.4 Each transit agency shall file a monthly accident, unacceptable hazardous condition, and corrective action operational-statistical summary report. This report shall be filed on a form prescribed by the Commission staff within 30 days from the last day of the month covered. The monthly summary report shall be filed whether or not any reportable accident occurred or any unacceptable hazardous condition was identified during the month.

6. REQUIREMENTS FOR INVESTIGATING ACCIDENTS AND UNACCEPTABLE HAZARDOUS CONDITIONS

- 6.1 Each transit agency shall investigate all reportable accidents and unacceptable hazardous conditions and ~~reportable accidents~~ on behalf of the Commission staff. The Commission staff may also perform separate, independent investigations at its own discretion.
- 6.2 The accident investigations performed by each transit agency shall be conducted in accordance with written procedures. Accident

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investigation procedures, including any changes, shall be submitted to the Commission staff for review and approval.

6.3 ~~The Transit agency's investigation shall be documented in a written report that identifies the most probable cause and any contributing causes of the accident or unacceptable hazardous condition. The report shall also contain or reference a corrective action plan and schedule to prevent a recurrence of the accident or to mitigate the unacceptable hazardous condition.~~

6.32 ~~When investigating an accidents and unacceptable hazardous conditions that require immediate notification per resulted in a fatality or serious injury as defined in 5.2 above, the transit agency shall:~~

~~(a) Notify give prior notice to the Commission staff in advance whenever an investigator, accident investigation team or panel is convened to performs interviews, questions witnesses, or conducts inspections, measurements, examinations, or tests as part of the investigation; to determine the cause of the accident.~~

~~(b) Provide for the Commission staff's participation to the fullest extent possible in accident investigations;~~

~~(c) Document in a written report each item investigated, the investigation findings, the most probable cause, contributing causes, and recommendations for corrective action to prevent a recurrence of the accident or unacceptable hazardous condition;~~

~~(d) Prepare a corrective action plan and schedule either as a part of the investigation report or in a separate document; and~~

~~(e) Submit its investigation report and corrective action plan with an accompanying implementation schedule to the Commission staff within 60 days of the occurrence of the accident or identification of the unacceptable hazardous condition. If the investigation takes longer than 60 days to complete, interim status reports shall be submitted every 30 days.~~

6.4 ~~The transit agency's investigation report and corrective action plan with accompanying implementation schedule shall be submitted to the Commission staff.~~

6.4 For all other reportable accidents, that do not require immediate notification, the transit agency is not required to submit formal

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accident investigation reports and corrective action plans unless specifically requested to do so by the Commission staff due to a specific safety concern.

- 6.5 The Commission may make such order with respect to the transit agency's or Commission staff investigation, as the Commission deems necessary.
- 6.6 Investigation reports and corrective action plans prepared by a rail transit agency and filed with the Commission or the Commission staff shall not be admissible as evidence nor shall they be used in any civil action for damages based on or arising out of matters covered therein unless specifically authorized by the Commission.

Dated December~~September~~ 23, 19997, at San Francisco, California.

PUBLIC UTILITIES COMMISSION
STATE OF CALIFORNIA

By WESLEY M. FRANKLIN
Executive Director

APPENDIX B

GENERAL ORDER NO. 164-B
(Supercedes General Order No. 164-A)

**PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

**RULES AND REGULATIONS GOVERNING STATE SAFETY OVERSIGHT OF
RAIL FIXED GUIDEWAY SYSTEMS**

Adopted September 20, 1996. Effective September 20, 1996.

(D. 96-09-081 in R. 96-04-021)

Amended September 3, 1997. Effective October 1, 1997.

Resolution No. ST-27

Amended December 2, 1999. Effective December 2, 1999.

Resolution No. ST-44

IT IS ORDERED that the following rules and regulations governing the safety oversight of rail fixed guideway systems shall hereafter be observed in this State unless otherwise directed by the Commission.

1. GENERAL PROVISIONS

- 1.1 *Authority.* These rules and regulations are authorized by and implement the provisions of 49 U.S.C. 5330, Section 99152 of the Public Utilities Code, and Title 49 of the Code of Federal Regulations, Part 659, Rail Fixed Guideway Systems, State Safety Oversight, Final Rule.
- 1.2 *Applicability.* These rules and regulations are applicable to all transit agencies operating rail fixed guideway systems in California.
- 1.3 *Additional Rules.* The Commission may make such additional rules and regulations or changes to these rules and regulations as necessary for the purpose of safety.
- 1.4 *Exemptions or Modifications.* Requests for exemptions from or modifications of these rules and regulations shall contain a full statement of the reasons justifying the request and demonstrating that safety is not reduced thereby. Any exemption or modification so granted shall be limited to the particular matter covered by the

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request.

- 1.5 *Preemption of Other Commission General Orders.* The accident reporting requirements in this general order supercede those in Sections 15.01, 15.02, 15.03 and 16.01 of General Order 143-A.

2. DEFINITIONS

- 2.1 *APTA Guidelines* means the American Public Transit Association's "Manual for the Development of Rail Transit System Safety Program Plans," published on August 20, 1991.
- 2.2 *Fatality* means the death of a person at the scene of an accident, or the transit agency knows that the person died within 30 days of the incident from injuries related to the accident.
- 2.3 *First aid* means medical attention for minor conditions such as abrasions, cuts, or bruises, and is typically confined to a single treatment.
- 2.4 *Hazardous condition* means a condition that may endanger human life or property. It includes unacceptable hazardous conditions.
- 2.5 *Immediate notification* means as soon as possible, but not to exceed 4 hours.
- 2.6 *Rail fixed guideway system* means any light, heavy, or rapid rail system, monorail, inclined plane, funicular, trolley, or automated guideway that is:
- (a) Included in the Federal Transit Administration's calculation of fixed guideway route miles or receives funding under FTA's formula program for urbanized areas (49 U.S.C. 5336); and
 - (b) Not regulated by the Federal Railroad Administration.
- 2.7 *Safety* means freedom from danger.
- 2.8 *Security* means freedom from intentional danger.
- 2.9 *Serious injury* means an injury that requires the individual to be transported to a medical facility for medical treatment, beyond medical observations, diagnostic procedures such as X-rays and drawing blood samples, or first aid.
- 2.10 *System safety program plan* means a document adopted by the transit agency detailing its safety and security policies, objectives, responsibilities, and procedures.
- 2.11 *Transit agency* means an entity operating a rail fixed guideway

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system.

- 2.12 *Unacceptable hazardous condition* means a hazardous condition determined to be an unacceptable hazardous condition using the APTA Guidelines' Hazard Resolution Matrix (APTA Guidelines, checklist number 7).

3. REQUIREMENTS FOR SYSTEM SAFETY PROGRAM PLANS

- 3.1 Each transit agency shall prepare a system safety program plan. The plan shall conform to the APTA Guidelines and these rules and regulations.
- 3.2 The system safety program plan shall address the personal security of the rail transit agency's passengers and employees. The Federal Transit Administration's final report FTA-MA-90-7001-94-1, *TRANSIT SYSTEM SECURITY PROGRAM PLANNING GUIDE*, dated January 1994, shall serve as a set of guidelines for preparation of the security portion of each rail transit agency's system safety program plan. Procedural details that the rail transit agency classifies as confidential information to prevent or mitigate breaches of security shall not be revealed in the system safety program plan. Each rail transit agency shall submit the security portion of its system safety program plan to the Commission for approval prior to January 1, 1998, or the date it begins operations, whichever is later.
- 3.3 The system safety program plan shall be submitted to the Commission staff for review and approval by the Commission. Subsequent revisions of the system safety program plan shall be submitted to the Commission staff for review and approval.
- 3.4 Each transit agency's system safety program plan shall describe the controls used to maintain effective communications and liaison with the Commission staff for reporting and investigating accidents and unacceptable hazardous conditions, submitting corrective action plans and annual internal safety audit reports, and facilitating on-site safety reviews by the Commission staff.
- 3.5 The Commission staff may perform inspections, investigations, and reviews of the design, construction, operation, and maintenance of each rail fixed guideway system to assess whether the actual safety and security procedures and practices of the transit agency comply

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with its system safety program plan.

- 3.6 At least once every three years, the Commission staff shall conduct an on-site review of the implementation of each transit agency's system safety program plan to verify compliance with and evaluate the effectiveness of the plan. The Commission staff may conduct the on-site review with its own personnel or by employing the services of another organization other than the transit agency.
- 3.7 Following each on-site review, the Commission will issue a decision based upon the Commission staff findings and recommendations, including an analysis of the efficacy of the system safety program plan and the need, if any, for updating the plan.

4. INTERNAL SAFETY AUDIT REQUIREMENTS

- 4.1 Planned and scheduled internal safety audits shall be performed annually by each transit agency to evaluate compliance and measure the effectiveness of its system safety program plan.
- 4.2 All of the organizational elements described in the Internal Safety Audit Process section of the APTA Guidelines shall be included in the scope of the activities to be audited by each transit agency. This total scope must be completely covered by the internal safety audits conducted within a 3-year period, and every 3-year period thereafter.
- 4.3 Each transit agency shall prepare a schedule of internal safety audits to be performed during each calendar year. This schedule, including any subsequent changes, shall be submitted to the Commission staff before any of the scheduled audits are begun.
- 4.4 Each internal safety audit shall be performed in accordance with written checklists by personnel technically qualified to verify compliance and judge the effectiveness of the system safety program plan activity being audited. The auditors may be organizationally assigned to the unit responsible for management of the activity being audited, but they must be independent from the first line of supervision responsible for performance of the activity being audited.
- 4.5 Each internal safety audit shall be documented in an annual report that covers the audits performed during each calendar year. The

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annual report shall state the results of each audit in terms of the adequacy and effectiveness of the system safety program plan. The annual report for the internal safety audits performed during the preceding year shall be submitted to the Commission staff prior to the 15th of February each year.

5. REQUIREMENT FOR REPORTING ACCIDENTS AND UNACCEPTABLE HAZARDOUS CONDITIONS

- 5.1 Each transit agency shall submit accident and unacceptable hazardous condition reports to the Commission staff. A reportable accident is one which exceeds the thresholds established in the following paragraphs and which is associated with the operation of rail transit vehicles and other on-track equipment at any location in the system; including at grade crossings, station platforms, mainline and yard tracks.
- 5.2 Each transit agency shall immediately notify the Commission staff of the following classes of accidents and unacceptable hazardous conditions by telephone, e-mail or FAX:
- (a) Any event resulting in a fatality or serious injury;
 - (b) Any fire or other hazardous event that requires the evacuation of passengers or requires fire suppression activities conducted by a fire department;
 - (c) Any accident that results in property damage in excess of \$100,000; and
 - (d) Any unacceptable hazardous condition.
- 5.3 Each transit agency shall submit written accident and unacceptable hazardous condition reports on forms prescribed by the Commission staff. Such written reports shall be submitted within 30 days after the last day of the month in which the accident occurred or the unacceptable hazardous condition was discovered. Written reports shall be filed for all unacceptable hazardous conditions and the following classes of accidents:
- (a) Any accident requiring immediate notification by telephone, e-mail or FAX;
 - (b) Any derailment or collision between rail transit vehicles, or between rail transit vehicles and other on-track equipment, or

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between rail transit vehicles and motor vehicles, that meet either of the following two conditions:

1. The rail transit vehicle or other on-track equipment is removed from service or rendered unavailable for service due to damage which must be repaired before it can be returned to service; and
 2. The motor vehicle is removed from the scene by a tow truck or other means due to damage which precludes it from being safely operated.
- 5.4 Each transit agency shall file a monthly accident, unacceptable hazardous condition, and corrective action summary report. This report shall be filed on a form prescribed by the Commission staff within 30 days from the last day of the month covered. The monthly summary report shall be filed whether or not any reportable accident occurred or any unacceptable hazardous condition was identified during the month.

6. REQUIREMENTS FOR INVESTIGATING ACCIDENTS AND UNACCEPTABLE HAZARDOUS CONDITIONS

- 6.1 Each transit agency shall investigate all reportable accidents and unacceptable hazardous conditions on behalf of the Commission staff. The Commission staff may also perform separate, independent investigations at its own discretion.
- 6.2 The accident investigations performed by each transit agency shall be conducted in accordance with written procedures. Accident investigation procedures, including any changes, shall be submitted to the Commission staff for review and approval.
- 6.3 When investigating accidents and unacceptable hazardous conditions that require immediate notification per 5.2 above, the transit agency shall:
- (a) Notify the Commission staff in advance whenever an investigator, investigation team or panel performs interviews, questions witnesses, or conducts inspections, measurements, examinations or tests as part of the investigation;
 - (b) Provide for the Commission staff's participation to the fullest extent possible in accident investigations;

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- (c) Document in a written report each item investigated, the investigation findings, the most probable cause, contributing causes, and recommendations for corrective action to prevent a recurrence of the accident or unacceptable hazardous condition;
 - (d) Prepare a corrective action plan and schedule either as a part of the investigation report or in a separate document; and
 - (e) Submit its investigation report and corrective action plan with an accompanying implementation schedule to the Commission staff within 60 days of the occurrence of the accident or identification of the unacceptable hazardous condition. If the investigation takes longer than 60 days to complete, interim status reports shall be submitted every 30 days.
- 6.4 For all other reportable accidents, that do not require immediate notification, the transit agency is not required to submit formal accident investigation reports and corrective action plans unless specifically requested to do so by the Commission staff due to a specific safety concern.
- 6.5 The Commission may make such order with respect to the transit agency's or Commission staff investigation, as the Commission deems necessary.
- 6.6 Investigation reports and corrective action plans prepared by a rail transit agency and filed with the Commission or the Commission staff shall not be admissible as evidence nor shall they be used in any civil action for damages based on or arising out of matters covered therein unless specifically authorized by the Commission.

Dated December 2, 1999, at San Francisco, California.

**PUBLIC UTILITIES COMMISSION
STATE OF CALIFORNIA**

By **WESLEY M. FRANKLIN**
Executive Director