

Decision No. C22-0675

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO**

PROCEEDING NO. 22I-0471R

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IN THE MATTER OF THE REGIONAL TRANSPORTATION DISTRICT'S CORRECTIVE ACTION PLAN REGARDING THE SABLE BOULEVARD AND EXPOSITION AVENUE DERAILMENT, RULE 4 CCR 723-7-7347.

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**COMMISSION DECISION OPENING  
INVESTIGATION AND REQUIRING  
FILING OF CORRECTIVE ACTION PLAN**

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Mailed Date: October 31, 2022  
Adopted Date: October 19, 2022

**I. BY THE COMMISSION**

**A. Statement**

1. On September 21, 2022, a Regional Transportation District's (RTD) light-rail vehicle derailed at the intersection/crossing of Sable Boulevard and Exposition Avenue, in the City of Aurora, resulting in the decoupling of the two light-rail vehicles and at least one injury requiring transport.

2. RTD is still in the process of conducting an initial investigation of this derailment and will be providing a preliminary accident report to the Commission for review on November 7, 2022, 45 days after the incident, as required by the State Safety Oversight Program Standard, Commission Rule 4 *Code of Colorado Regulations* 723-7-7347.

**B. Background**

3. On January 28, 2019, an RTD light-rail vehicle derailed at the same intersection/crossing of Sable Boulevard and Exposition Avenue in the City of Aurora. This

resulted in the injuries of 5 passengers, one of which resulted in the partial amputation of a passenger's leg.

4. On June 19, 2019, the Commission opened Investigatory Proceeding 19I-0347R and required RTD to file a Corrective Action Plan (CAP) for the accident. RTD filed its proposed CAP and associated hazard analysis on July 18, 2019. The CAP included the following mitigation measures: 1) Evaluation of current "return to work" policies and procedures for RTD staff authorized to operate trains with a specific focus on employees returning from extended time away; 2) Investigation/Assessment/Implementation of Psychological Fitness for Duty policies and procedures under direction of RTD's medical provider for "return to work" programs; 3) Development of means and methods by RTD Rail Operations for evaluating and tracking all train operators; 4) Review and reassessment by the RTD Transportation Department including Standard Operating Procedures and Rule Book materials with a focus on inclement weather operations; 5) Confirmation of current placement and the addition of permitted speed signs in multiple locations in Downtown Denver and the R-Line in Aurora; 6) Publication of a bulletin that is signed for by Operators regarding permitted posted speeds on the alignments and adherence to posted speeds; 7) Reminders included in Train Orders of speed limits on the light rail alignments; and 8) Implementation of a Field Supervisor campaign focused on speed adherence with violations of posted speeds triggering face to face meetings with Operators regarding speeding.

5. By Decision No. C19-0665, issued August 6, 2019, the Commission requested additional information and actions to be included in RTD's CAP. The Commission found RTD's proposed CAP addressed most of the human factors related to the accident but did not provide enough analysis of some of the potential mechanical issues, additional equipment that could be

used on the alignment to alert operators to speed restricted areas, and additional human factor issues. The Commission determined to add specific actions and requirements to the CAP that must be completed before it would approve corrective action for the accident.

6. On September 16, 2019, RTD filed an addition to its CAP adding proposed mitigation measures and supplemental information responding to the questions posed by the Commission.

7. As part of the CAP filed by RTD, in addition to the human factor's issues, RTD evaluated possible technology that could be installed in the light rail vehicles that would either enhance operator awareness, provide better oversight of operations, or prevent speeding. These technologies include the following: 1) upgraded cameras to include in cab and forward facing cameras which have been included in the 29 new LRV's placed in service, but which will need to be added to the existing 172 vehicles, which will cost approximately \$4M for which no budget has been identified or appropriated by RTD in the short or long term; 2) enhanced ATC which would establish vehicle to wayside communications to monitor vehicle position and speed, and would provide signal enforcement and civil speed control of all trains. Thus, eliminating red signal violations and govern the speed of all trains at a cost of \$12-15M for which RTD states \$7M is in the current short term budget for 2019, \$2M in the 2020 budget, and \$1M per year in budget years 2021-2025 (RTD states this budget allows for some type of enhanced ATC system, but is insufficient to acquire any type of system currently available for a fleet of RTD's size); and 3) communication based train control/ultra wide band communications, which would provide very sophisticated control of train position, speed, braking distance, signal systems, etc. at an approximate cost of \$100M, which RTD indicates is cost prohibitive.

8. By Decision No. C19-0829, issued October 11, 2019, the Commission approved RTD's CAP and the amended CAP. The Commission ordered RTD to move forward with the proposed mitigation measures discussed in the original and amended CAP filings. The Commission further ordered RTD to, by April 30, 2020, make an additional filing in this proceeding providing a full analysis of RTD's budget issues regarding adding technological mitigation to its light rail system and proposing how RTD plans to move forward with enhancing its system and operations with additional technologies.

9. On May 26, 2020, RTD submitted a first Motion for Extension of Time to Provide Analysis of Budget Issues Regarding Technological Mitigation and Plan to Move Forward, requesting an extension to August 31, 2020, to provide the required budget analysis. The request was made due to circumstances arising from the novel coronavirus (COVID-19) pandemic. RTD stated it had been deeply involved with the unprecedented demands of the COVID-19 crisis management for its mass transit system since March 2020. RTD further stated, as a result of COVID-19, it had been required to make amendments to its budget to cover COVID-19 financial impacts, which impacts had not yet been finalized at that time. RTD indicated that it expected the long-range effects of COVID-19 on work practices, operations, and budget would become more apparent, and the burden of these issues related to the budget would have been met, by the requested new filing date of August 31, 2020. By Decision No. C20-0417, issued June 4, 2020, the Commission granted RTD's request to extend the filing date of the budget analysis to August 31, 2020.

10. On August 28, 2020, RTD filed this second Motion, requesting a further extension to January 31, 2021, to file the required budget analysis. This Motion requested until January 31,

2021 to file the required budget analysis due to delays that had occurred as a result of the COVID-19 virus.

11. After two extensions of time due to delays brought about by the COVID-19 virus, RTD filed its Analysis of Budget Issues Regarding Technological Mitigation, and Plan to Move Forward.

**C. Analysis**

12. While the Commission has not yet received the accident report for the September 21, 2022 derailment, the previous corrective actions conducted at this intersection/crossing may not have mitigated the issues as identified in the previous corrective action

13. Pursuant to 4 *CCR 723-7-7347* of the Commission's Rules Regulating Railroads, Rail Fixed Guideways, Transportation by Rail and Rail Crossings, we are opening this investigation proceeding.

14. RTD is required to file the CAP it will develop and the associated hazard analysis in this investigation proceeding by November 7, 2022.

15. RTD is also required to file a safety assurance analysis of the previous mitigation measures included in the CAP for the previous derailment and provide information about what mitigations are still working as expected and what mitigation measures are not working as originally expected. For those mitigation measures that did not work as expected, RTD is required to provide a safety risk management analysis of what changes should be made, if required, or in the alternative what mitigation measures should be made or changed to the previous mitigation that did not work as originally expected. These safety assurance and safety risk management analyses shall be provided withing this proceeding within 30 days of the Decision for Commission review and approval.

**II. ORDER**

**A. The Commission Orders That:**

1. An investigatory proceeding is opened to review and approve the Regional Transportation District’s (RTD) hazard analysis and Corrective Action Plan (CAP) for the September 21, 2022 derailment at the intersection/crossing of Sable Boulevard and Exposition Avenue in Aurora, Colorado.

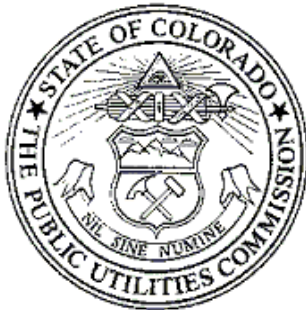
2. RTD shall file its preliminary CAP and hazard analysis in this proceeding by November 7, 2022.

3. RTD shall file the safety assurance and safety risk management analyses on the previous Sable/Exposition CAP within 30 days of this Decision.

4. This Decision is effective on its Mailed Date.

**B. ADOPTED IN COMMISSIONERS’ WEEKLY MEETING  
October 19, 2022.**

(S E A L)



ATTEST: A TRUE COPY

Doug Dean,  
Director

THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

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Commissioners