U.S. Department
of Transportation
**Federal Transit
Administration**

Headquarters

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Washington, DC 20590

49 CFR Part 659 Hazard Management Program Requirements

Date: September 6, 2007

To: Members of the State Safety Oversight (SSO) Community

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On April 29, 2005, the Federal Transit Administration (FTA) published its revised rule, *49 CFR Part 659, Rail Fixed Guideway Systems; State Safety Oversight (SSO).* Later that year, FTA released *Implementation Guidelines for 49 CFR Part 659* and *Resource Toolkit for State Oversight Agencies Implementing 49 CFR Part 659.* FTA developed these publications to explain Part 659 requirements and to identify effective practices for achieving compliance.

Since the revised Part 659 went into effect on May 1, 2006, FTA has received questions from State Oversight Agencies (SOAs) and Rail Transit Agencies (RTAs) regarding how the hazard management program should be developed, documented, administered, and monitored. Further, during recent FTA SSO audits, FTA has observed inconsistencies in the implementation of these requirements, and has made several findings of non-compliance.

FTA has developed this letter to support SOAs and RTAs in addressing 49 CFR Part 659 hazard management program requirements. This letter provides background regarding the need for these new requirements; a detailed explanation of these requirements, including direct references to the applicable 49 CFR Part 659 provisions; and examples of effective practices used by SOAs and RTAs to implement these provisions in their respective programs.

Hazard Management Program: Background

The 2005 final rule revised section 659.31 to include new requirements for the hazard management program. As explained in the preamble to the revised rule, these new requirements were developed to:

- Address challenges experienced by SOAs and RTAs regarding implementation of the "unacceptable hazardous conditions" investigations specified in FTA's original rule.

- Address changes in accident notification and investigation thresholds in the revised rule, which significantly reduced the number of accident investigations conducted through the SSO Program. While these threshold changes were necessary to conform to the National Transit Database (NTD), as a result of these changes, SOAs lost access to valuable information they previously received in investigation reports from the RTAs regarding single-person injuries and other minor events. Under the revised rule, these minor incidents are now being managed exclusively through the RTA's hazard management program.

Section 659.39 of FTA's original rule required SOAs to get involved in the RTA's hazard management program primarily during the identification, investigation and resolution of accidents and "unacceptable hazardous conditions." During public notice and comment undertaken for the Part 659 rule revision, both SOAs and RTAs expressed their frustration with this approach. Both SOAs and RTAs complained about the subjectivity inherent in defining an "unacceptable hazardous condition." SOAs also noted that, occasionally, these investigations became unnecessarily adversarial, because SOAs had no clear authority to classify an "unacceptable hazardous condition." SOAs also complained that they had no authority to require on-going reporting regarding the RTA's implementation of its hazard management program.

As FTA explained in the preamble to the revised rule, FTA changed the hazard management program requirements to resolve these issues. Through these new requirements, FTA intended for the SOAs to actively monitor RTA performance of the hazard management program in an ongoing manner. SOAs would no longer become involved in this program only after an accident or an "unacceptable hazardous condition" had been identified. Further, by removing the vast majority of minor accidents and single-person injuries from SSO accident reporting thresholds, FTA responded to recommendations from RTAs that these minor occurrences would be more effectively addressed through the hazard management program.

FTA intended for this new approach to be a "win-win" for all involved parties. RTAs could document and manage minor incidents, such as slips, trips, and falls and other single-person injuries, through the hazard management program with less administrative burden. SOAs would receive on-going updates regarding the status of RTA activities to address these minor incidents and other concerns through the hazard management program. Should an RTA identify an "unacceptable hazardous condition," then the SOA would be much better prepared to support an investigation and to participate under less adversarial circumstances.

Hazard Management Program: Regulatory Requirements

The revised section 659.15 (b)(8) requires the SOAs, in their Program Standards, to identify their requirements for **"ongoing communication and coordination relating to the identification, categorization, resolution, and reporting of hazards to the oversight agency."** *This new provision gives each SOA the authority to require ongoing reporting from each RTA in its jurisdiction regarding the performance of its hazard management program. It also provides SOAs with the authority to require notification and investigation reports or other information regarding the identification of specific types or categories of hazards at the RTA.*

Further, the revised rule added a new section 659.19 (f), which defines minimum requirements for what must be contained in the RTA's hazard management program. In § 659.19 (f), FTA authorizes each SOA to require each RTA to include in its System Safety Program Plan (SSPP) "a description of the RTA's process used to implement its hazard management program, including activities for:

    (1)   Hazard identification;

    (2)   Hazard investigation, evaluation and analysis;

    (3)   Hazard control and elimination;

    (4)   Hazard tracking; and

(5)   Requirements for on-going reporting to the oversight agency relating to hazard management activities and status."

Section 659.19 (f) requires that each RTA SSPP contain a section that addresses each of the five items specified in § 659.19 (f). In meeting the fifth item specified in § 659.19 (f), FTA expects that each RTA will include a description of how the RTA will provide ongoing reporting to the SOA regarding the activities performed in the hazard management program and the status of findings and hazard mitigation activities. This RTA description should also conform to any requirements specified by the SOA in its Program Standard to address 49 CFR 659.15 (b)(8).

Section 659.31 provides additional clarification regarding the authority conferred to each SOA to require each RTA in its jurisdiction to develop, implement, and document, in its SSPP, a program to identify and resolve hazards. Section 659.31 (a) states that this program must include "any hazards resulting from subsequent system extensions or modifications, operational changes, or other changes within the rail transit environment." Section 659.31 (b) requires that the hazard management program implemented by the RTA "must, at a minimum:

(1)   Define the RTA's approach to hazard management and the implementation of an integrated system-wide hazard resolution process;

(2)   Specify the sources of, and the mechanisms to support, the on-going identification of hazards within the RTA;

(3)   Define the process by which identified hazards will be evaluated and prioritized for elimination or control by the RTA;

(4)   Identify the mechanism used by the RTA to track, through resolution, the identified hazard(s);

(5)   Define the RTA's minimum thresholds for the notification and reporting of hazard(s) to state oversight agencies; and

(6)   Specify the process by which the RTA will provide on-going reporting of hazard resolution activities to the state oversight agency."

Section 659.31 provides each SOA with the authority to require each RTA to document, in its SSPP or supporting procedures, the following:

- *The RTA's overall approach to implementing an integrated, system-wide hazard resolution process (i.e., not only to address operational hazards, but also hazards from system extensions/modification, operational changes, or other changes within the rail transit environment);*
- *Sources and mechanisms used by the RTA to identify hazards (i.e., customer complaints, employee reports, review of near-miss incidents and control center logs, analysis of maintenance records, accident investigations, formal hazard analysis, etc.);*
- *Processes used by the RTA to evaluate and prioritize hazards (i.e., formal hazard analysis, informal assessment based on experience and technical recommendations, trending analysis, consultant reviews, manufacturer's recommendations, etc.);*
- *Tracking systems used by the RTA to record the results of these analyses and the status of identified mitigation activities (i.e., information management systems, databases, paper records, committee meeting minutes, etc.);*

- *Thresholds, specified by the SOA in its Program Standard, which if triggered, require the RTA to notify the SOA, within a time-frame specified by the SOA in its Program Standard;*
- *Any required investigation reports or other documents to be provided by the RTA to the SOA, as specified in the SOA Program Standard, regarding any hazard that triggers the hazard notification threshold; and*
- *The process to be used by the RTA for reporting ongoing hazard management program activities to the SOA (i.e., monthly or quarterly logs, monthly or quarterly meetings, SOA participation on RTA Hazard Resolution Committees, etc.).*

Finally, sections 659.17 and 659.25 of the revised rule confer the authority to each SOA, through the annual SSPP review and approval process, to ensure that 49 CFR Part 659 hazard management program requirements are adequately addressed in the RTA SSPP. *If the RTA SSPP does not comply with § 659.19 (f) and § 659.31 (a) and (b) requirements, or with the on-going reporting provisions specified in the SOA Program Standard to address section 659.15 (b)(8), then the SOA may reject the SSPP. This rejection would occur through the same review and approval process the SOA uses to ensure SSPP conformance to other § 659.19 requirements and its Program Standard.*

Hazard Management Program: Implementation

The hazard management program requirements in 49 CFR Part 659:

- Ensure the on-going sharing of information with the SOA regarding the RTA's process for the identification, investigation, evaluation, resolution and tracking of hazards, as specified in § 659.15 (b)(8); and

- Ensure that, as part of the SSPP, each RTA develops and implements a hazard management program meeting the minimum requirements specified in § 659.19 (f) and § 659.31 (a) and (b).

In order to meet § 659.15 (b)(8) requirements, the SOA should work with the RTA to identify any existing internal mechanisms in place at the RTA for tracking and reporting on hazards. By using these existing mechanisms, the SOA can ensure that no additional administrative burden is placed on the RTA.

For example, in its Program Standard or procedures, and in the RTA SSPP approved by the SOA, the SOA may ensure "ongoing communication and coordination" regarding the RTA's implementation of the hazard management program by requesting any of the following:

- Submission of a monthly or quarterly hazard tracking log maintained by the RTA;

- Direct access to web-based systems used by the RTA to report, manage, and track hazards or submission of weekly, monthly, or quarterly reports from these systems;

- Monthly or quarterly submission of the actual reports collected by the RTA from various sources regarding reported hazards;

- Monthly or quarterly teleconferences or in-person meetings to discuss the hazards identified by the RTA and the activities being taken to address them; or

- SOA participation on the RTA's Hazard Resolution Committee or other equivalent committee or task force that meets regularly to discuss the RTA's implementation of its hazard management program.

§ 659.15 (b)(8) **does not require** SOA review and approval of "ongoing communication and coordination" with the RTA regarding its implementation of the hazard management program. Rather, the objective is to ensure that the RTA has established procedures to keep the SOA informed regarding the types of hazards being reported, assessed and/or resolved by the RTA and the status of the results, enabling the SOA to observe the implementation of this process. Should the SOA develop concerns regarding the RTA's implementation of Part 659 hazard management program requirements, then these concerns should be addressed through hazard investigations (as required in the SOA Program Standard), the SOA's three-year safety review process, or in the SOA's annual review and approval of the RTA's updated SSPP.

Based on Initial Submissions made to FTA by May 1, 2006, and the results of SSO Audits conducted over the last 15 months, many SOAs meet § 659.15 (b)(8) requirements by either:

- Receiving monthly or quarterly hazard tracking logs from the RTA; or

- Participating in RTA Hazard Resolution Committee Meetings, or other equivalent committee meetings, and receiving all minutes, logs, and correspondence from these committees.

A sample hazard tracking matrix is located on Page 58 in Chapter 9 of FTA's *Implementation Guidelines for 49 CFR Part 659*. Detailed recommendations for requiring a hazard management program that complies with 49 CFR Part 659 provisions are included in *Section 6 – Hazard Management Process* of *Appendix E: Program Requirements for Development of a Rail Transit Agency SSPP*, located in FTA's *Resource Toolkit for State Oversight Agencies Implementing 49 CFR Part 659*.

To address requirements specified in § 659.19 (f), and § 659.31 (a) and (b), the hazard management program implemented by the RTA must identify all mechanisms, systems and procedures in place at the rail transit agency to identify hazards. Examples include:

- Data mining of agency control center logs and maintenance information systems;
- Monitoring of special orders and speed restrictions;
- Reports from operators and supervisors;
- Customer complaints;
- Results of formal safety analyses;
- Results from internal safety and security audits;
- Results from efficiency/proficiency testing and other rules compliance activities,
- Results from the SOA three-year safety review; and
- Results from accident investigations and trend analysis of minor incidents and near-misses.

In addition, the hazard management program must clearly define how identified hazards are evaluated. This includes the RTA's thresholds and process for determining whether a reported hazard should be investigated and assessed, and how the results of any analysis performed by the RTA are documented.

Also, the RTA must identify its approach to ensuring that reported hazards, once assessed as requiring resolution, are actually being controlled and eliminated, whether by design for minimum risk; use of safety devices; use of warning devices; the provision of procedures and training; or some other means.

The RTA must also conform to the hazard notification and reporting thresholds specified by the SOA in its Program Standard. A number of SOAs have retained "unacceptable hazardous condition" as the threshold requiring RTA notification within two hours and RTA submission of an investigation report and corrective action plan according to a timeframe specified in the SOA Program Standard.

Finally, in its SSPP, the RTA must also identify its process for managing on-going reporting requirements for communicating hazard management activities and status to the SOA in an ongoing manner (i.e., monthly tracking logs, monthly or quarterly meetings; monthly or quarterly reports, meeting minutes, SOA participation in an RTA committee, or some other method). Again, this ongoing reporting is not reviewed and approved by the SOA, but merely transmitted by the RTA to the SOA to enable the SOA to monitor the RTA's implementation of its hazard management process.

Conclusion

The discussion presented in this letter is intended to enhance both SOA and RTA understanding of the specific Part 659 requirements relating to the hazard management program. FTA recognizes that while the RTA hazard management program is at the heart of the system safety process, it is, perhaps, the most difficult Part 659 requirement for SOAs and RTAs to implement. This difficulty is compounded when an SOA has more than one RTA in its jurisdiction.

As we work together as a community to improve implementation of the hazard management program specified in 49 CFR Part 659, I would like to request your continued participation and cooperation in this process. If you have specific comments, concerns or issues, please do not hesitate to contact FTA's Safety Team Leader, Mr. Levern McElveen, at (202) 366-1651 or Levern.McElveen@dot.gov. I remain available to you as well to answer any questions you may have. My contact information appears on the first page of this letter.