



This document is scheduled to be published in the Federal Register on 10/03/2013 and available online at <http://federalregister.gov/a/2013-23921>, and on FDsys.gov

DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

49 CFR Chapter VI

[Docket No. FTA-2013-0030]

RIN 2132-AB20; 2132-AB07

The National Public Transportation Safety Plan, the Public Transportation Agency Safety Plan, and the Public Transportation Safety Certification Training Program; Transit Asset Management

AGENCY: Federal Transit Administration (FTA), DOT.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The Federal Transit Administration (FTA) is issuing this consolidated advance notice of proposed rulemaking (ANPRM) to request public comments on a wide range of topics pertaining to the new Public Transportation Safety Program (National Safety Program) and the requirements of the new transit asset management provisions (National TAM System) authorized by the Moving Ahead for Progress in the 21st Century Act. Together, the requirements of the National Safety Program and the National TAM System are intended to improve the safety of the Nation's public transportation systems, ensure that those systems are in a state of good repair, and provide increased transparency into agencies' budgetary decision-making process.

DATES: Comments must be received by [INSERT DATE 90 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. Any comments filed after this deadline will be considered to the extent practicable.

ADDRESSES: Please submit your comments by only one of the following methods, identifying your submission by Docket Number (FTA-2013-0030) or RIN number (2123-AB20, 2132-AB07).

- Federal eRulemaking Portal: Submit electronic comments and other data to <http://www.regulations.gov>.
- U.S. Mail: Send comments to Docket Operations; U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building Room W12-140, Washington, DC 20590-0001.
- Hand Delivery or Courier: Take comments to Docket Operations in Room W12-140 of the West Building, Ground Floor, at 1200 New Jersey Avenue SE, Washington, DC, between 9:00 a.m. and 5:00 p.m., Monday through Friday, except Federal holidays.
- Fax: Fax comments to Docket Operations, U.S. Department of Transportation, at (202) 493-2251.

Instructions: You must include the agency name (Federal Transit Administration) and Docket Number (FTA-2013-0030) for this notice or RIN (2132-AB20, 2132-AB07), at the beginning of your comments. If sent by mail, submit two copies of your comments. Due to security procedures in effect since October 2001, mail received through the U.S. Postal Service may be subject to delays. Parties submitting comments should consider using an express mail firm to ensure their prompt filing of any submissions not filed electronically or by hand. If you wish to receive confirmation that FTA received your comments, you must include a self-addressed stamped postcard. All comments received will be posted without change to <http://www.regulations.gov>, including any personal information provided. You may review U.S.

DOT's complete Privacy Act Statement published in the Federal Register on April 11, 2000, at 65 FR 19477-8 or <http://DocketsInfo.dot.gov>.

FOR FURTHER INFORMATION CONTACT:

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Office hours are from 8:30 a.m. to 5:00 p.m., Monday through Friday, except Federal holidays.

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I. Introduction

On July 6, 2012, the President signed into law the Moving Ahead for Progress in the 21st Century Act (MAP-21), Pub. L. 112-141. MAP-21 made a number of fundamental changes to the statutes that authorize the Federal transit programs at 49 U.S.C. Chapter 53. Under discussion in this ANPRM are several provisions within the Public Transportation Safety Program (National Safety Program) authorized at 49 U.S.C. 5329 and the transit asset management requirements (National TAM System) authorized at 49 U.S.C. 5326.

Many of the requirements of the National Safety Program and the National TAM System apply equally to all modes of public transportation.¹ However, FTA intends to focus its initial oversight and enforcement efforts on rail transit systems' implementation of and compliance with these requirements. FTA believes that the increased potential for catastrophic accidents, loss of life, and property damage associated with rail transit warrants the most immediate attention.

To the extent that another Federal agency already regulates the safety of a particular mode of public transportation, FTA does not intend to promulgate duplicative, inconsistent, or conflicting regulations. For example, FTA does not intend to promulgate safety regulations that will apply to either commuter rail systems that are regulated by the Federal Railroad

Administration or to ferry systems that are regulated by the United States Coast Guard.

However, unlike the requirements for the National Safety Program, the requirements of the National Transit Asset Management System apply to all modes of public transportation, including commuter rail and ferry systems, regardless of whether those modes are required to comply with asset management regulations by other Federal agencies. However, FTA does not intend to promulgate duplicative, inconsistent, or conflicting National TAM System regulations.

Through this ANPRM, FTA is seeking comments from the entire transit industry on the topics addressed in this ANPRM. Specifically, FTA is seeking public comment on its initial interpretations, proposals it is considering, and questions regarding the following: (1) the requirements of the National Safety Program relating to the National Public Transportation Safety Plan, the Public Transportation Agency Safety Plan, and the Public Transportation Safety Certification Training Program; (2) the requirements of the National TAM System, including four proposed options under consideration for defining and measuring state of good repair; and (3) the relationship between safety, transit asset management and state of good.

FTA is also seeking comment on its intent to propose adoption of the Safety Management System (SMS) approach to guide the development and implementation of the National Safety Program. SMS offers a proactive method for managing safety which enables agencies to identify and resolve safety concerns and challenges before they result in incidents. SMS combines established system safety engineering principles with advanced organizational management techniques, and supports continuous improvement in safety performance through a positive safety culture founded on four key priorities: safety policy, safety risk management, safety assurance, and safety promotion.

In addition, several requirements for both safety and transit asset management directly impact the Metropolitan, and the Statewide and Non-metropolitan planning processes. See 49 U.S.C. 5303 and 5304. Metropolitan planning organizations (MPO) and States must consider, and integrate recipients' TAM Plans and targets, as well as Transit Agency Safety Plans and targets, into the planning process. Because all of these provisions have broad impacts on FTA recipients and other stakeholders, this ANRPM also poses questions on the relationship of the safety and transit asset management requirements to the planning process.

The public comments in response to this ANPRM will help inform future notices of proposed rulemakings (NPRM) for the National Public Transportation Safety Plan, the Public Transportation Agency Safety Plan, the Public Transportation Safety Certification Training Program, and the National Transit Asset Management System.

A. The National Public Transportation Safety Program

Section 20021 of MAP-21 authorizes the new Public Transportation Safety Program codified at 49 U.S.C. 5329. The codification of section 5329 marks the culmination of efforts that began in December 2009 when the Administration transmitted a legislative proposal to Congress which requested the authority to establish and enforce minimum Federal safety standards for rail transit systems. In a historic move, not only did MAP-21 adopt many of the Administrations' proposals regarding the safety of rail transit, but it also provided FTA with the authority to regulate safety for all modes of public transportation.

The National Safety Program is comprised of the following four components – (1) the National Public Transportation Safety Plan (National Safety Plan), 49 U.S.C. 5329(b); (2) the Public Transportation Agency Plan (Transit Agency Safety Plan), 49 U.S.C. 5329(d); (3) the

Public Transportation Safety Certification Training Program (Safety Certification Training Program), 49 U.S.C. 5329(b)(1)(D) and 5329(c); and (4) the State Safety Oversight (SSO) Program. 49 U.S.C. 5329(e). Each of the four components will contribute to the establishment of a comprehensive framework that will ensure safe public transportation for all. FTA intends to publish separate NPRMs on each of these four components.

In most instances, the requirements of the National Safety Program will apply to each recipient of FTA funding, regardless of mode of transit provided. However, FTA's regulatory jurisdiction is limited by two provisions. First, FTA is prohibited from promulgating safety performance standards for rolling stock that is already regulated by another Federal agency. 49 U.S.C. 5329(2)(C)(i). Second, the requirements of the State Safety Oversight Program will not apply to rail transit systems that are subject to regulation by the Federal Railroad Administration. 49 U.S.C. 5329(e)(1) and (e)(2). Notwithstanding these two explicit statutory prohibitions, as previously mentioned, to the extent that any other Federal agency already regulates the safety of a particular mode of transportation, FTA does not intend to promulgate any duplicative, inconsistent, or conflicting regulations.

This ANPRM addresses and seeks public comment only on the first three components, which directly apply to FTA's regulated community. In the near future, FTA will issue a notice of proposed rulemaking on the SSO Program. That rule will propose requirements for States that must oversee rail transit systems within the regulated community.

The National Public Transportation Safety Plan

FTA will "create and implement" a National Safety Plan to "improve the safety of all public transportation systems that receive FTA funding." 49 U.S.C. 5329(b)(1). At minimum,

the National Safety Plan will include: (1) safety performance criteria for all modes of public transportation; (2) the definition of state of good repair developed through the implementation of the National TAM System; (3) a public transportation safety certification training program; and (4) minimum safety performance standards for transit vehicles used in revenue service that are not regulated by other U.S. DOT modes or any other Federal agency. The minimum safety performance standards, must, to the extent practicable, take into consideration recommendations and best practices of the National Transportation Safety Board (NTSB) and the transit industry. 49 U.S.C. 5329(b)(2)(C).

The Public Transportation Agency Safety Plan

Within one year after FTA issues a final rule to carry out section 5329(d), each State or recipient of section 5307 Urbanized Area Formula Grants Program (section 5307) funds or section 5311 Rural Area Formula Program (section 5311) funds, must develop, implement, and certify a Public Transit Agency Safety Plan. 49 U.S.C. 5329(d)(1). Generally, large transit providers that are direct recipients of section 5307 funds must develop their own plans, have the plans approved by their board of directors, and certify those plans to FTA. However, small transit providers that are recipients under section 5307 or section 5311 may have their plans drafted or certified by their State. 49 U.S.C. 5329(d)(3). FTA seeks comment on how to define small transit providers and the States' role in the drafting and certification process in section V, below.

Pursuant to 49 U. S.C. 5329(d)(1), each Transit Agency Safety Plan must include, at minimum:

- A requirement that the board of directors, or equivalent entity, approve the plan and any updates;
- Methods for identifying and evaluating safety risks throughout all elements of the recipient's public transportation system;
- Strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions;
- A process and timeline for conducting an annual review and update of the plan;
- Performance targets based on the safety performance criteria and SGR standards set out in the National Safety Plan;
- Assignment of an adequately trained safety officer who reports directly to the general manager, president, or equivalent officer of the recipient; and
- A comprehensive staff training program for operations personnel and personnel directly responsible for safety.

Regulations to implement the requirements of the Transit Agency Safety Plan will take into account the size and operating environments of applicable recipients. Until FTA issues a final rule to carry out section 5329(d), existing safety and security plans required of rail transit agencies under 49 CFR part 659 will remain in effect. 49 U.S.C. 5329(d)(2). Once FTA issues a final rule, all recipients, including those that provide rail transit service, will only be required to have one Transit Agency Safety Plan.

The Public Transportation Safety Certification Training Program

FTA is required to establish a Public Transportation Safety Certification Training Program for the certification and training of Federal and State employees, or other designated

personnel, who conduct safety audits and examinations of public transportation systems, and employees of public transportation agencies directly responsible for safety oversight. 49 U.S.C. 5329(c)(1). Until a final rule is promulgated to establish and implement the Safety Certification Training Program, FTA is required to issue Interim Provisions for the certification and training of those persons that will be subject to the final rule. 49 U.S.C. 5329(c)(2).

FTA envisions that the Public Transportation Safety Certification Training Program (Safety Certification Training Program) authorized at 49 U.S.C. 5329(c), will establish minimum expertise requirements for Federal, State, transit agency and other designated personnel who are directly responsible for safety oversight. This program responds to findings identified in a 2006 report, “Rail Transit: Additional Federal Leadership Would Enhance FTA’s State Safety Oversight Program,” issued by the Government Accountability Office (GAO), which indicated a lack of expertise among safety oversight personnel.¹

This ANPRM seeks public comments on the Safety Certification Training Program. FTA will publish proposed Interim Provisions for the certification and training of employees responsible for safety oversight in a subsequent Federal Register notice. The public will have an opportunity to comment on the proposed Interim Provisions at that time. We ask that the public direct any comments on the Interim Provisions to that docket when it is available.

FTA will implement the requirements of the National Safety Program in consultation with the public, States, the transit industry, and the U.S. DOT’s Transit Rail Advisory

¹ GAO, Rail Transit: Observations on FTA’s State Safety Oversight Program, GAO-06-997T (Washington, D.C.: July 19, 2006), available at <http://www.gao.gov/assets/130/123829.pdf>, and Rail Transit: Additional Federal Leadership Would Enhance FTA’s State Safety Oversight Program, GAO-06-821 (Washington, D.C.: July 26, 2006), available at <http://www.gao.gov/assets/260/250860.pdf>. GAO also testified to these issues before the Subcommittee on Highways, Transit, and Pipelines, Committee on Transportation and Infrastructure, House of Representatives in July 2006 (<http://gao.gov/products/GAO-06-997T>) and in December 2009 before the Subcommittee on Highways and Transit, Committee on Transportation and Infrastructure, House of Representatives and the Subcommittee on Housing, Transportation, and Community Development, Committee on Banking, Housing, and Urban Affairs, U.S. Senate (<http://gao.gov/products/GAO-10-293T>; <http://gao.gov/products/GAO-10-314T>).

Committee for Safety (TRACS). FTA will use the comments received through this ANPRM to help develop the requirements of the National Safety Plan, Transit Agency Safety Plan, and Safety Certification Training Program. Depending upon the applicable statutory direction and relevant circumstances, FTA will implement the National Safety Program through a combination of regulations, statements of policy, guidance materials, technical assistance and training.

B. The Safety Management System Approach

Transit is one of the safest ways to travel. According to the National Safety Council,² the lifetime odds of dying as an occupant of a rail car are approximately 1 in 178,000, and the lifetime odds of dying as an occupant of a bus are also about 1 in 178,000. By contrast, the lifetime odds of dying as an occupant of a passenger car are just 1 in 415, the lifetime odds of dying as a pedestrian are 1 in 749, and the lifetime odds of dying as a bicyclist are nearly 1 in 5,000.

However, serious incidents do occur, and the potential for catastrophic events remains. As discussed in section IIIA, below, in recent years, there have been several major transit accidents that resulted in fatalities, injuries, and significant property damage. Since 2004, the National Transportation Safety Board (NTSB) has reported on nine transit accidents that, collectively, resulted in 15 fatalities, 297 injuries, and over \$30 million in property damages.³ The NTSB has investigated a number of these accidents and has issued reports identifying the probable causes and contributing factors, including deficiencies in the training and supervision of employees; deficiencies in the maintenance of equipment and infrastructure; and deficiencies in safety management and oversight, such as weaknesses in transit agencies' safety rules and

² National Safety Council (2013) *Injury Facts*®, 2013 Edition. Itasca, IL.

³ Section IIIA "The Need for a Comprehensive National Safety Program," discusses several of these accidents and provides links to the NTSB's reports.

procedures, lack of a safety culture within the transit agency, and lack of adequate oversight by the state and Federal agencies. The deficiencies identified by the NTSB will continue to plague the transit industry as infrastructure ages, skilled employees retire, and transit agencies continue to endure financial stresses. FTA's goal is to address these deficiencies and improve safety.

In order to advance a comprehensive approach to safety decision-making, FTA is considering a Safety Management System (SMS) approach to developing and implementing the National Safety Program. Following a recommendation from FTA's Federal Advisory Committee— [TRACS](#),⁴ on May 13, 2013, the FTA Administrator issued a [Dear Colleague Letter](#)⁵ and [FAQs](#)⁶ to the transit industry setting forth FTA's intention to adopt the SMS approach to guide the advancement of FTA's safety rulemakings and other initiatives to improve the safety of public transportation. This ANPRM seeks comment on this proposed approach.

Safety management is based on the fact that safety is not an absolute condition— there will always be hazards and risks in public transportation. However, the traditional approach of primarily reacting to accidents by prescribing measures to prevent recurrence alone will not contribute to sustaining and improving public transportation safety. The need for a new approach to addressing public transportation safety has become especially urgent in light of high-profile rail transit accidents discussed in section IIIA, below.

⁴ Implementing Safety Management System Principles in Rail Transit Agencies, available at http://www.fta.dot.gov/documents/TRACS_Ltr_Rpt_SMS_fnl.pdf.

⁵ The Dear Colleague Letter is available at http://www.fta.dot.gov/newsroom/12910_15391.html.

⁶ The SMS FAQ's are available at http://www.fta.dot.gov/tso_15177.html.

Modern safety management practices that systematically and proactively identify the factors that contribute to unsafe events and prevent or minimize the likelihood of their occurrence have proven effective in addressing similar concerns in other transportation industries. Such practices call for setting safety goals and objectives, defining clear levels of accountability and responsibility for safety, establishing proactive approaches to managing risks and hazards in the day-to-day activities, risk-based resource allocation, monitoring and evaluating performance towards goals, and continuous learning and improvement.

SMS offers a means to prevent public transportation accidents by integrating safety into all aspects of a transit system's activities, from planning to design, to construction, to operations, to maintenance. SMS builds on the public transportation industry's three decades of experience with system safety by bringing management processes, integrated data analysis, and organizational culture more squarely into the industry's overall risk management framework. SMS is a management approach that provides processes that ensure each public transportation agency, no matter its size or service environment, has the necessary organizational structures, accountabilities, and policies and procedures in place to direct and control resources to optimally manage safety. When systematically applied, the SMS approach provides a set of decision-making tools that allow transit agencies to prioritize safety and sound transit asset management when making informed operating and capital investment decisions. These decision-making processes and investment prioritization decisions are discussed in more detail in Section II.

Following this ANPRM, FTA may issue an NPRM to implement SMS. In addition to FTA's general authority to issue rules to carry out section 5329, the statutorily-required components of the National Safety Program provide FTA with the legal authority and foundation necessary to implement the SMS approach within the transit industry. 49 U.S.C. 5329(f)(7).

There are four essential pillars of an SMS approach – (1) safety policy, (2) safety risk-management, (3) safety assurance, and (4) safety promotion. The safety policy is the foundation of the organization's SMS. It clearly states the organization's safety objectives and sets forth the policies, procedures, and organizational structures necessary to accomplish the safety objectives. The safety policy clearly delineates management and employee responsibilities for safety throughout the organization. It also ensures that management is actively engaged in the oversight of the organization's safety performance by requiring regular review of the safety policy by a designated accountable executive (general manager, president, or other person with similar authority). Within the context of the Transit Agency Safety Plan, an organization's safety objectives will be articulated, at a minimum, through the setting of performance targets based on the safety performance criteria established in the National Safety Plan, and state of good repair standards based on the definition of that term established under the National TAM System. See 49 U.S.C. 5329(d)(1)(E).

Pursuant to 5329(d)(1)(B) and (C), the Transit Agency Safety Plan must also include “methods for identifying and evaluating safety risks throughout all elements of the public transportation system,” and “strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions,” respectively. Each of these requirements is consistent with the second pillar of SMS – safety risk management, which requires the development of processes and procedures to help the organization better understand its

operational systems and identify hazards associated with those systems. Once hazards are identified, other procedures must be developed to analyze and assess the risk resulting from these hazards, as well as to institute controls to mitigate or eliminate the risks.

Sections 5329(d)(1)(B) and (C) also encompass the requirements of the third pillar of SMS – safety assurance. Safety assurance requires an organization to monitor the effectiveness of safety risk controls established under safety risk management. Safety assurance is also designed to ensure that the organization meets or exceeds its safety objectives through the collection, analysis, and assessment of data about the organization’s performance.

The fourth pillar of SMS – safety promotion – involves training, awareness, and communication that support safety. The training aspect is consistent with the Transit Agency Safety Plan requirement for a comprehensive staff training program for operations personnel and personnel directly responsible for safety. 49 U.S.C. 5329(d)(1)(G).

FTA is considering incorporating these four pillars into its safety related activities. Under the SMS approach, FTA’s safety oversight reviews would focus on the overall safety performance of an entire organization and effective implementation of the methods for identifying and evaluating safety risks and to mitigate exposure to those risks, instead of relying solely on strict compliance with regulatory requirements or technical standards. Moreover, the principles of SMS will guide the establishment of national safety priorities set out in the National Safety Plan. Through data analysis FTA will identify national trends that suggest gaps in safety performance, common hazards and leading practices for risk control. FTA will then set national performance criteria and standards based on those safety hazards that pose the most significant risks.

Many of the system safety, risk management, and safety communications procedures and practices currently being used by both rail transit systems and bus transit systems are essential building blocks of a successful SMS. For example, some agencies already have vision and mission statements that include safety. In addition, some agencies already use quantitative measures to measure and evaluate safety performance. Types of data that some agencies currently collect to measure safety performance include accident investigation reports, customer complaints, and vehicle defect reports. Some agencies are already using data management systems such as Microsoft Excel or customized software to manage and analyze the data that is collected.

For those agencies that do not use an SMS, the adoption of the SMS approach would be an organizational shift that can be integrated into the existing operational environment. FTA does not intend to prescribe exactly what processes a transit agency must have in place to implement SMS. FTA envisions that it would be up to each transit agency to develop processes to effectively implement SMS.

C. Transit Asset Management

Pursuant to the requirements at 49 U.S.C. 5326, FTA must establish a National TAM System that includes the following five elements: (1) FTA is to define the term, state of good repair, including objective standards for measuring asset conditions; (2) FTA must establish performance measures based on these state of good repair (SGR) standards, and each FTA grant recipient must annually set targets based on these measures; (3) each FTA recipient and subrecipient must develop an asset management plan that includes an asset inventory and investment prioritization; (4) asset inventories, condition assessments, and performance targets

must be reported to FTA; and (5) FTA must provide technical assistance to recipients, including an analytical process or decision support tool that allows recipients to estimate capital investment needs over time and assists recipients with asset investment prioritization.

Each transit agency's investment priorities will become essential components of the long-range transportation plan and the transportation improvement program (TIP) in large metropolitan areas and essential components of the statewide transportation plan and the statewide transportation improvement program (STIP) in other areas. 49 U.S.C. 5303 and 5304. In all cases, the process of planning for the investment of Federal transportation dollars must consider the needs for transit state of good repair and safety alongside the comparable needs of the rest of the transportation network.

II. The Relationship Between Safety, the Safety Management System Approach, Transit Asset Management and State of Good Repair

Each transit agency has a process by which they budget, allocate funds, and plan for the future. In most cases, this decision-making process is led by a general manager or CEO who formulates the capital and operating budgets. In the SMS approach, this individual is called the accountable executive. This accountable executive is responsible for making decisions and balancing competing needs.

Ultimately, the decisions made by the accountable executive regarding the proposed capital and operating budgets are presented for approval to the transit agency's board of directors (board) or equivalent entity. Executives and boards must make strategic decisions regarding operational and service demands, capital investments, and the safety needs of the system. Accountable executives and boards often wrestle with these decisions because there is never

enough money to do everything. Ensuring the appropriate consideration of safety and transit asset management as part of budgetary decisions related to capital and operating expenses has always been a balancing act. The implementation of the Transit Agency Safety Plan using the SMS approach would equip accountable executives and their boards with the information required to understand the hazards and associated risks within their own unique transit system. This knowledge encourages informed, deliberate, and transparent investments in controls and other measures to mitigate recognized risks. Instead of just having a capital plan and an operational plan, accountable executives and boards would now consider the needs identified in the Transit Agency Safety Plan and the TAM Plan, with other service needs, such as expansion, concurrently.

A key challenge in connecting transit asset management to safety planning is that even when assets are not in a state of good repair, they can be operated safely. Likewise, assets in a state of good repair can present a safety risk. That is not to say, however, that achieving a state of good repair is sufficient for safe transit operations. Similarly, safety is not the only reason for implementing TAM Plans. Still, FTA believes that there is a nexus between achieving a state of good repair and the safety of a transit system. The following discussion is intended to illustrate the linkage of transit asset management and state of good repair under the SMS approach.

FTA believes that, in the context of transit asset management, safety assessment begins with the statutorily required condition assessment. See 49 U.S.C. 5326(a)(2)(A). The condition assessment would identify those assets that fall below the SGR standards to be established by the National TAM System and the definition of state of good repair. If an asset is not in a state of good repair, it would be subsequently subject to a review under the SMS processes. The safety process would look at the condition of the asset and identify existing hazards and the associated

level of risk. Many times there will be no significant risk at all because the asset was either well maintained or simply does not pose a significant safety threat. The asset may still be a high-priority replacement for other reasons, but the safety process is not going to raise a red flag. Accordingly, any residual risk would be accepted and the agency would focus on those assets that do pose significant identified safety threats.

Sometimes, however, an asset will pose a risk that the accountable executive determines is unacceptable. This still may not mean that the asset should be immediately taken out of service, but it would require a control to be set in place to mitigate the risk to an acceptable level. This control would not always require the transit agency to either purchase an entirely brand new asset or spend any capital at all. Instead, it could mean that the transit agency, for example, would need to either purchase new shunting, or establish new procedures for track workers where there is concern about signaling, or institute a speed zone where track condition has become an issue, or implement a requirement to go to manual train control. The transit agency should ensure that proper safety assurance practices are in place and are utilized to monitor each control and determine whether or not it is sufficiently mitigating the risk.

Some controls will cost money to implement. They may involve training, overtime, and special equipment investments. Controls also can have operational consequences. A speed restriction in a big system may cause increased crowding or slower travel times that slow down service enough to impact the operating schedule. System impacts of this magnitude may already be considered in the agency budget process. The safety risk management and TAM processes highlight them.

Many transit agencies are faced with tough decisions about how to direct their investments. With a transparent process to manage safety, these tough decisions will be more

deliberate and less likely to be inadequate or deferred. Ultimately, outputs from the TAM process and SMS will help shape the transit agency's strategic planning and budget process by contributing to informed decision-making.

FTA has placed a visual depiction of the aforementioned relationships and processes in the docket to this ANPRM.

III. Background

A. The Need for a Comprehensive National Safety Program

FTA's predecessor agency, the Urban Mass Transportation Administration (UMTA), originated under the Urban Mass Transportation Act of (UMT Act) of 1964 – a Great Society initiative under the Kennedy and Johnson Administrations, designed to assist State and local governments in financing publicly and privately operated urban mass transportation systems “to be operated by public or private mass transportation companies as determined by local needs.” (Pub. L. 88-365; quoting Section 2(b)(3) of the UMT Act, 49 U.S.C. app. 1602(b)(3)). UMTA's mission, at that time, was strictly limited to providing Federal financial assistance to develop and maintain municipal transit systems.

From the inception of the program for Federal financial assistance to state and local agencies FTA and its predecessor agency, UMTA, were prohibited from regulating any aspect of the day-to-day operations of grant recipients. Prior to MAP-21, this prohibition was codified at 49 U.S.C. 5334(b)(1), which stated in pertinent part:

...[E]xcept for purposes of national defense or in the event of a national or regional emergency, the Secretary may not regulate the operation, routes, or schedules of a public transportation system for which a grant is made under this chapter, nor may the

Secretary regulate the rates, fares, tolls, rentals, or other charges prescribed by any provider of public transportation. (Emphasis added)

The Congress deliberately chose not to give UMTA any ability to establish national standards for safety in urban mass transportation. See, e.g., Amalgamated Transit Union v. Skinner, 894 F.2d 1362, 1364 (D.C.Cir. 1990). Moreover, both UMTA's and FTA's authority to regulate safety during the past 45 years was limited to investigation of safety hazards (added in 1974), testing buses for durability (added in 1987), and requiring recipients to have a drug and alcohol program (added in 1991).

Specifically, in Section 107 of the National Mass Transportation Assistance Act of 1974, Congress instructed the agency to "investigate unsafe conditions in any facility, equipment, or manner of operation financed under this Act which the Secretary believes creates a serious hazard of death or injury." The statute further directed UMTA to determine the nature and extent of the hazardous conditions; determine the means that might best correct or eliminate those hazardous conditions; and compel the grant recipient to submit a plan for correcting or eliminating those conditions to UMTA's satisfaction. Also, the statute allowed the Secretary to "withhold further financial assistance" to the grant recipient until that plan was "approved or implemented." Nonetheless, the grant recipient was free to adopt, reject, or modify UMTA's recommendations.

Prior to MAP-21, FTA's investigative authority was codified at 49 U.S.C. 5329, and pursuant to Section 3028 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Pub. L. 109-59 (2005); SAFETEA-LU), was broadened to allow FTA to "conduct investigations into safety hazards and security risks associated with a condition in equipment, a facility, or an operation financed under this chapter to establish the nature and

extent of the condition and how to eliminate, mitigate, or correct it." Over the years, on several occasions, FTA has invoked this statute to audit individual transit agencies in instances where FTA believed there may have been unacceptable hazards or risks. Still, FTA has never interpreted Section 5329 as giving the agency authority to conduct a nationwide investigation into transit facilities or equipment or regulate those facilities or equipment through uniform standards for the entire transit industry.

Through Section 317 of the Surface Transportation and Uniform Relocation Assistance Act of 1987, the Congress directed UMTA to establish a program for testing new models of buses for maintainability, reliability, safety, performance, structural durability, fuel economy, and noise. The safety component of the bus testing program consists of a test for handling and stability. However, the purpose of the bus testing is simply to report the raw data for evaluation by transit agencies that seek to purchase new buses with Federal funding. Until the passage of MAP-21, FTA was not authorized to establish pass-fail criteria for safety or any of the other qualities for which the buses are tested.

Moreover, prior to MAP-21, pursuant to 49 U.S.C. 5330 and consistent with principles of federalism, it is the States – not FTA – that are responsible to require, review, approve, and monitor each rail transit agency's safety plan; investigate hazardous conditions and accidents at rail transit systems; and require action to correct or eliminate those conditions. FTA's role and responsibility is solely one of monitoring the many State agencies that exercise hands-on oversight of rail transit operations, and providing technical assistance to those State agencies.

This very limited Federal authority for safety did not prove satisfactory in the view of the National Transportation Safety Board (NTSB or "Board"). In August 1991, following a number of accidents in the industry – including very serious accidents on rail transit systems in

Philadelphia, Chicago, and New York City – the Board published a study titled, [“Oversight of Rail Rapid Transit Safety” \(NTSB/SS-91/02\)](#)⁷ in which it urged all States to develop or revise safety programs to ensure comprehensive and effective oversight over rail transit systems in their jurisdictions. The NTSB believed that States should have primary authority for oversight of rail transit safety, but it urged UMTA to evaluate the effectiveness of States’ oversight of rail transit, develop guidelines, and require States and transit operators to use their UMTA grant funds to improve the safety of rail transit systems. Also, the NTSB encouraged UMTA to withhold Federal financial assistance, as necessary, pending corrective action by the States and transit agencies.

In response to the NTSB recommendations, the Congress created a State Safety Oversight (SSO) program for rail fixed guideway transit safety in Section 3029 of the Intermodal Surface Transportation Efficiency Act (ISTEA), enacted in December 1991. Pub. L. 102-240. ISTEA renamed UMTA as the Federal Transit Administration (FTA), and directed FTA to compel States with rail transit systems within their borders not otherwise subject to regulation by the Federal Railroad Administration (e.g., commuter rail systems, or light rail systems connecting to the “general railroad system” of the United States, as described in Appendix A to 49 CFR part 209) to establish and carry out safety program plans for each of those rail transit systems. The statute also required safety program plans to include, at minimum, core requirements for safety, lines of authority, levels of responsibility, and methods of documentation for those subjects. Further, Section 3029 of ISTEA granted FTA explicit authority to withhold funding from any State that did not comply with the statutory mandates, and directed FTA to promulgate rules for that purpose. This new authority for FTA made no

⁷ Oversight of Rail Rapid Transit Safety (NTSB/SS-91/02) is available at http://www.nts.gov/doclib/reclib/1991/R91_33_36.pdf.

provision for oversight of bus operations – possibly because the 1991 NTSB report was focused on rail transit.

The regulations implemented at 49 CFR part 659 to carry out the authority provided in 49 U.S.C. 5330 have been criticized for their lack of rigor and inconsistent application among States. Moreover, the State SSO programs developed to comply with the regulations in part 659 have been appropriately criticized for lack of authority, resources, and expertise. Most notably, in July 2006, the Government Accountability Office (GAO) identified some fundamental weaknesses in SSO agencies (SSOAs) in a report, “[Rail Transit: Additional Federal Leadership Would Enhance FTA’s State Safety Oversight Program](#).”⁸ The GAO report found that the staffing levels and expertise varied greatly across SSOAs, and many of the SSOAs lacked enough qualified staff and adequate levels of training to meet their responsibilities. Lack of funding was also found to be a serious impediment. The GAO noted that the SSO regulations provided no enforcement power to the SSOAs, and very little enforcement power to FTA. Additionally, the GAO report faulted FTA for having failed to set goals and performance measures for State Safety Oversight, and having failed to audit SSOAs as often as originally planned. GAO urged FTA to set both short and long-term goals for State Safety Oversight, with measures of progress toward each of those goals; to audit each of the SSOAs at least once every three years; and to develop an appropriate training curriculum for SSOAs that would include courses on how to conduct oversight of rail transit systems.

Five major incidents following GAO’s report highlighted increasing challenges for rail transit safety. On November 30, 2006, a Washington Metropolitan Area Transit Authority (WMATA) Blue Line train struck and killed two employees inspecting rail transit track in

⁸ Rail Transit: Additional Federal Leadership Would Enhance FTA’s State Safety Oversight Program is available at <http://www.gao.gov/products/GAO-06-821>.

Alexandria, Virginia.⁹ On January 7, 2007, a WMATA Green Line train derailed near the Mt. Vernon station in Washington, D.C., injuring 23 people and causing \$3.8 million in damage.¹⁰ On May 28, 2008, two Massachusetts Bay Transportation Authority (MBTA) light rail trains collided with one another on the Green Line in Newton, Massachusetts – a suburb of Boston – killing the operator of the second train, injuring another eight persons, and causing \$8 million in damage.¹¹ On May 8, 2009, the MBTA suffered another accident on its Green Line light rail system in which one train rear-ended another in the tunnel near the Government Center station in downtown Boston; 68 people were injured, with more than \$9 million in damage.¹² On June 22, 2009, two WMATA trains collided with one another near the Fort Totten station on the Red Line, killing the operator of the second train and eight passengers, injuring another 52 passengers, and causing \$12 million in damage.¹³ On July 18, 2009, two San Francisco Municipal Transportation Agency (Muni) light rail trains collided with one another at the West Portal station in downtown San Francisco, injuring the operators of both trains and 46 other persons and causing \$4.5 million in damage.¹⁴ And, in August and September, 2009, two WMATA maintenance employees lost their lives while working on the rail transit system; one was struck by a train on the Blue Line, the other by a maintenance vehicle on the Orange Line.

In its investigations, the NTSB found a variety of probable causes for these accidents including: equipment malfunctions; equipment in poor or marginal condition including

⁹ The NTSB's Railroad Accident Brief for the WMATA Blue Line accident is available at <http://www.nts.gov/doclib/reports/2008/RAB0802.pdf>.

¹⁰ The NTSB's accident report for the Mt Vernon Square accident is available at <http://www.nts.gov/doclib/reports/2007/RAR0703.pdf>.

¹¹ The NTSB's final report for the collision between two MBTA Green Line trains in Newton, Massachusetts is available at <http://www.nts.gov/doclib/reports/2009/RAR0902.pdf>.

¹² The NTSB's accident brief for the MBTA Green Line accident in Boston is available at <http://www.nts.gov/doclib/reports/2011/RAB1106.pdf>

¹³ The NTSB's final report for the Fort Totten accident is available at <http://www.nts.gov/doclib/reports/2010/RAR1002.pdf>.

¹⁴ The NTSB's accident brief for the San Francisco MUNI accident is available at <http://www.nts.gov/doclib/reports/2011/RAB1104.pdf>.

equipment that can pose particular risks to safety, such as signal systems; lack of vehicle crashworthiness; and employee error – such as inattentiveness, or failure to follow a rail transit system’s operating procedure. The NTSB found the lack of a strong safety culture to be a contributing factor in the WMATA accidents. Also, the NTSB found a lack of adequate oversight both by SSOAs and FTA.¹⁵

The NTSB has also found similar issues in the bus transit industry. After conducting several accident investigations involving transit buses (Normandy, Missouri; Cosmopolis, Washington; New York, New York; and Nashville, Tennessee) and holding a public hearing on transit bus safety in March 1998, it found that substantial safety deficiencies and little Federal or State government safety oversight impacted the safety performance of the transit bus industry. As a result, the NTSB issued a Special Investigation Report in 1998¹⁶ which highlighted several deficiencies with Federal oversight of bus transit safety. The report noted that FTA was unable to “to identify situations that may lead to unsafe conditions on buses for the traveling public or to resolve any unsafe conditions because of a lack of effective safety oversight and enforcement.” In addition, NTSB questioned the utility of the safety data that was being collected on transit bus safety. Finally, the NTSB was concerned that, at the time, a comprehensive bus safety program was not available to transit agencies outside of APTA’s membership program.

Based on its findings, the NTSB issued the following safety recommendations to the United State Department of Transportation:

- Develop and implement an oversight program to assess and ensure the safety of transit bus operations that receive Federal funding;

¹⁵ The NTSB’s final report for the Fort Totten accident is available at <http://www.nts.gov/doclib/reports/2010/RAR1002.pdf>.

¹⁶ The Special Investigation Report is available at <http://www.nts.gov/doclib/reports/1998/SIR9803.pdf>.

- Collect accurate, timely, and sufficient data so that thorough assessments can be made relating to transit bus safety;
- Evaluate the collected data, as part of the oversight program, to identify the underlying causes of transit bus accidents that could lead to the identification of safety deficiencies at transit agencies; and
- In cooperation with the American Public Transit Association, the Community Transportation Association of America, and the American Association of State Highway and Transportation Officials, develop a model comprehensive safety program(s) and provide it to all transit agencies.

In response to these recommendations, between 2000 and 2002, FTA sponsored outreach and research to develop a model program for Transit Bus Safety and Security. During this time, FTA worked with APTA, CTAA, and AASHTO to develop a memorandum of understanding (MOU) that was formally adopted by all parties in 2003.¹⁷

Most of the more recent transit bus accidents reported in the news have occurred with motor coach vehicles. Most notably:

- On August 4, 2013 a North County Transit District bus struck three bicyclists in Camp Pendleton, CA, fatally injuring one and wounding two others. The bus had attempted to pass the cyclists by veering into the opposite lane of traffic and when the bus returned to its normal traffic lane it struck the cyclists.
- In May 2013 a Sound Transit bus in Kirkland, WA collided with another vehicle at an interstate exit ramp intersection causing 2 fatalities, 1 injury, and approximately \$40,000 in property damage.

¹⁷ The Memorandum of Understanding is available at http://bussafety.fta.dot.gov/uploads/resource/3949_filename.

- A Jacksonville Transportation Authority operator lost control of her vehicle in October 2011 while pulling away from a bus stop and struck and killed a patron who had just exited the vehicle. The operator stated that she applied the brakes, yet the bus kept moving and she could not turn the wheel. An investigation into the accident concluded that the operator, who had four previous accidents with JTA before the incident, did not straighten the bus's wheels before accelerating causing the bus to run over the curb, hit two signs, a fence, the victim, and an oak tree.
- In September 2010 a Southwest Ohio Regional Transit Authority bus operator pulled the bus to a curb and left her seat to check on an issue in the rear of the vehicle. The bus rolled approximately 150 feet down an incline and struck a pedestrian and a parked ambulance, resulting in 3 injuries and 1 fatality.
- In April 2010 the operator of a TriMet bus in Portland, OR made a left turn and struck five pedestrians in the crosswalk who had the lighted "walk" signal and the right-of-way. Two pedestrians died at the scene, one was seriously injured after he was pinned under the transit vehicle, and two more sustained injuries that required hospital treatment.
- On September 26, 2008 a WMATA Metrobus ran a red light and struck a taxi cab in Washington, D.C., resulting in a fatality and five injuries. The accident investigation uncovered several prior arrests for the Metro operator including drug and gun charges. Another Washington Metro fatal accident occurred in October 2009 when a passenger disembarked from one Metrobus and when she crossed the street in front of the bus she was struck and killed by a second bus traveling in the second westbound lane of Mount Olivet Road in NE Washington.

FTA could neither locate NTSB recommendations nor GAO reports to cite that document the accidents.

Currently, FTA has developed a well-received bus safety program, which includes a heavily trafficked resource website, onsite reviews and state DOT orientation seminars. However, the program remains completely voluntary and, therefore, FTA is unable to ensure that all bus transit agencies are positively affected. As highlighted in NTSB's 2013 [Most Wanted List](#),¹⁸ there are significant more improvements that need to be made to ensure the safety of bus operations.

In December 2009, the Administration formally submitted a legislative proposal to the Congress calling for a more comprehensive approach to public transportation safety.¹⁹ In testimony before both the House Committee on Transportation and Infrastructure and the Senate Committee on Banking, Housing, and Urban Affairs, Secretary of Transportation Ray LaHood and Federal Transit Administrator Peter Rogoff presented the details of this legislative proposal, which was introduced in both houses in February 2010 as the Public Transportation Safety Program Act of 2010. H.R. 4643, S. 3015, 111th Cong. (2010). Citing the warning signs of increasing collisions, derailments, and casualties, the Secretary and the Administrator emphasized that rail transit always carries the potential for catastrophic accidents and damage – notwithstanding its record of being a very safe means of travel – and that the State Safety Oversight program, as it then existed, suffered from a number of fundamental weaknesses:

- Under the existing SSO framework, each rail transit system was free to determine its own safety practices and was not compelled to address action items found in audits or accident

¹⁸ The Most Wanted List is available at http://www.nts.gov/safety/mwl2_2012.html.

¹⁹ The letters to Congress and the proposed bill to establish a Public Transportation Safety Program are available at http://www.fta.dot.gov/about_FTA_11117.html.

investigations. An SSOA would simply review those rail transit agency practices and report on the progress of corrective actions;

- Each SSOA had only so much regulatory, oversight, and enforcement authority as had been given by the State government. In many instances, the SSOA lacked authority to enforce any standards or compel compliance by the rail transit system it oversaw;
- Many States viewed the SSO program as an unfunded mandate. Thus, many States devoted insufficient resources to the program, which compromised the abilities of SSOAs to recruit, train and develop staff with adequate technical, audit and oversight skills; and
- In many instances, an SSOA was dependent upon financial resources from the same entities it was obliged to oversee – the rail transit systems – thus creating a conflict of interest.

The Administration's bill would have required FTA to develop uniform, national standards for rail transit safety; given FTA authority to inspect rail transit systems for compliance with those standards; established a certification program for State Safety Oversight; authorized grants of 100 percent Federal funding for SSO programs, once certified; and required the SSO programs to be financially independent from the rail transit systems they oversaw. Further, the Administration's bill would have given States the option to decline participation in the SSO program, without penalty, in which instance, FTA would have been required to perform the oversight function. Also, the Administration's bill would have given FTA authority to issue civil or criminal penalties for noncompliance.²⁰

Also, in December 2009, the Secretary chartered an advisory committee for safety in rail transit systems, titled the Transit Rail Advisory Committee for Safety (TRACS). In accordance with the Federal Advisory Committee Act (Pub. L. 92-463, Oct. 6, 1972), TRACS was

²⁰ The proposed bill is available at http://www.fta.dot.gov/about_FTA_11117.html. See also, Examining the Federal Role in Overseeing the Safety of Public Transportation Systems: Hearing Before the Subcomm. On Hous., Transp. & Cmty. Dev. of the S. Comm. On Banking, Hous. & Urban Affairs, 111th Cong. 89-97 (2009).

established to evaluate economic, technological, and institutional developments in the rail transit industry, and to make recommendations to the Secretary and FTA for Federal programs and policies in subjects of transit safety.

The TRACS is comprised of approximately 25 persons from transit agencies, academia, labor, and other transit professionals who provide a range of perspectives on how to enhance public transportation safety. Soon after its formation, TRACS provided FTA with input from knowledgeable stakeholders as the agency awaited the delegation of safety authority from Congress.

In July 2010, after both the House and Senate versions of the Administration's bill were referred to committees, the Senate Committee on Banking, Housing, and Urban Affairs reported the Public Transportation Safety Act of 2010 (S. 3638, 111th Cong. (2010)), which laid the foundation for the general safety and State Safety Oversight provisions eventually enacted under MAP-21. The Senate Banking bill embodied most of the fundamental goals of the Administration's legislation but differed from the Administration's bill in that it did not allow a State to decline participation in the SSO program; the grants of Federal funds for an SSO program would require a 20 percent local match; and States could be allowed as much as three years after the effective date of a final rule to develop an SSO program adequate for certification – after which, in the event of an inadequate SSO program, FTA would be authorized to withhold all Federal grant funds for all public transportation operators in that State, not just the rail transit systems. See generally, the Senate Banking, Housing and Urban Affairs Committee Report accompanying the Senate bill. S. Rept. 111-232; 111th Cong. 2nd Sess. (2010). The 111th Congress adjourned before the Senate could act on the Senate Banking bill, and the House did not consider any similar bill.

In the 112th Congress, the text of the Public Transportation Safety Act of 2010 became section 20021 of the larger bill for reauthorization of surface transportation – the Moving Ahead for Progress in the 21st Century Act (MAP-21) (S. 1813, 112th Cong. (2012 – that passed the Senate on March 14, 2012. The Senate and House conferenced with the Senate-passed MAP-21 and the House reauthorization bill (H.R. 4348), making some amendments to the safety provisions of section 20021. On July 6, 2012, the President signed into law the Moving Ahead for Progress in the 21st Century Act (Pub. L. 112-141; MAP-21), which authorized a new comprehensive Public Transportation Safety Program codified at 49 U.S.C. 5329 (section 5329). Moreover, the statutory provision that had previously prohibited FTA from regulating the operations of its recipients has been amended. Now there is an exception to the general prohibition on regulating operations for “purposes of establishing and enforcing a program to improve the safety of public transportation” under Section 5329. 49 U.S.C. 5336(b).

B. The Need for a National Transit Asset Management System

Transit provides more than 10 billion passenger trips each year, which represents more trips each month than all of the Nation’s airlines combined will make in a year. When transit assets are not in a state of good repair (SGR), the consequences often include increased safety risks, decreased reliability, higher maintenance costs, and an overall lower quality of service to customers. Through the requirements of section 5326 and the new needs-based State of Good Repair Formula Program authorized at 49 U.S.C. 5337, renewed emphasis will be placed on restoring and replacing the Nation’s aging public transportation infrastructure.

FTA has focused attention on the growing problem of the Nation’s transit SGR backlog, particularly at large transit systems, in a [series of reports](#), including: the 2008 Report, “State of

Good Repair: Beginning the Dialogue”; the “2009 Rail Modernization Study Report to Congress”; the “2010 National State of Good Repair Assessment”; and, the “2010 Department of Transportation Conditions & Performance Report.”²¹ In the most recent of these reports, FTA estimated that the Nation’s transit systems collectively have an SGR backlog that exceeds \$78 billion. This backlog continues to grow in spite of existing efforts to address the problem.

In the 2009 Rail Modernization Study Report to Congress, FTA identified four principles of sound transit asset management: (1) taking a strategic, rather than a tactical, approach that moves beyond traditional worst first prioritization; (2) balancing the competing needs of operations, maintenance, reinvestment, and system expansion; (3) integrating the perspectives of the whole organization, including operations, safety, planning, engineering, budget, and information technology; and (4) making informed and prioritized choices based on sound data and clear organization objectives regarding the use of scarce resources. These principles will naturally also form a foundation for FTA and the transit industry to use in addressing the SGR backlog and implementing requirements for transit asset management planning.

MAP-21 fundamentally shifted the focus of Federal formula investments in transit to emphasize the need to maintain, rehabilitate, and replace existing transit assets. The ability of FTA recipients, along with States and Metropolitan Planning Organizations, both to set meaningful transit SGR performance targets and to achieve those targets, is critically dependent on the ability of all parties to work together to prioritize the funding of SGR projects from all funding sources. The new SGR Formula Grant Program for rail transit systems and for bus transit systems operating on dedicated lanes with access for high-occupancy vehicles will also be an essential component of this process. However, these grants alone will not be enough to address the backlog. Due to overall limited availability of all sources of funding, transit agencies

²¹ Each of these reports is available at <http://www.fta.dot.gov/sgr>.

will need to be strategic in the use of all available funds from all sources – Federal, State, local, and system-generated – to make the best investments each year. The various components of this new National TAM System will work to emphasize state of good repair as a top priority at FTA and within the public transportation industry. Together, these elements will assist FTA and the transit industry in making the case for SGR investments and securing additional funding from all levels of government, but also for prioritizing SGR investments with existing funding sources.

In December 2012, FTA started the conversation on transit asset management with stakeholders through an Online Dialogue. This Online Dialogue attracted 739 registered users, almost 150 total comments, and nearly 1,500 votes on the ideas and comments submitted. Additionally, FTA has heard from industry stakeholders at numerous industry conferences and through a regular series of SGR Roundtables, which began in 2009.

This ANPRM continues that conversation and requests written comments on issues involving transit asset management and state of good repair. FTA wants to take a common-sense approach in carrying out the many requirements related to transit asset management and, to the extent possible, minimize the costs and burdens on all public transportation operators, particularly small operators with a limited number of assets. Below, this ANPRM raises a number of possibilities for the approach FTA might take in implementing the requirements of section 5326.

Not included in this ANPRM are detailed questions related to collecting asset inventory and condition assessment information in the National Transit Database (NTD). FTA previously began its efforts to implement this requirement based on earlier direction from Congress in 2010. FTA will be requesting comments from affected recipients and other stakeholders on proposed

changes to its NTD Report Manual to include asset inventory and condition assessment information in a subsequent notice in the Federal Register.

IV. The National Public Transportation Safety Plan

Pursuant to 49 U.S.C. 5329(b)(1), FTA must “create and implement a national public transportation plan to improve the safety of all public transportation systems” that receive FTA financial assistance. The National Safety Plan must include: (1) safety performance criteria; (2) the definition of state of good repair; (3) a safety certification training program; and (4) vehicle performance standards. The National Safety Plan will be applicable to each FTA recipient.

FTA envisions that the National Safety Plan will serve as a tool to establish and communicate national safety priorities based on analysis of available safety information. FTA will set national priorities based on those issues that are identified and which pose the highest level of safety risk. When such risks are observed, FTA will use the National Safety Plan to both set national criteria for specified safety performance and communicate mitigation strategies to the public transportation community. Accordingly, the performance criteria and standards, SGR measures, and training requirements will be adjusted in response to new information and the identification of emerging industry-wide or sector-wide gaps in safety. Each transit agency will address these requirements through their own required Transit Agency Safety Plan.

A. Performance Criteria

Pursuant to 49 U.S.C. 5329(b)(2)(A), FTA is required to set “safety performance criteria for all modes of public transportation.” FTA envisions that the safety performance criteria will consist of desired outcomes, established controls to mitigate risks, and indicators for identifying

and tracking safety-related issues. Each of these components relies heavily on the collection and analysis of safety information. The ability to use safety information to measure safety-related outcomes is a critical and necessary step forward in managing and mitigating risks. Through sound data collection, analysis, and mandatory reporting, the safety performance criteria established by rulemaking will help transit providers in the early detection and control of safety vulnerabilities, and will help FTA to better assess the effectiveness of its own program and initiatives. Eventually, FTA envisions that transit agencies will be able to use safety information to progress from a reactive safety risk management response, to a proactive or predictive response. That transition will allow transit agencies to direct resources towards effective safety risk management and safety assurance.

Although transit agencies will have primary responsibility for collecting and analyzing their own safety information, FTA is considering proposing data collection processes and analyses that will allow FTA to collect and roll up results to the national level. To this end, FTA intends to lead and support the transit industry and the States in developing or clarifying definitions of key terms, determining the industry's most pressing safety issues, developing standardized data collection and analysis methods, and establishing baselines to benchmark selected safety concerns. Transit systems would then set targets based on these measures. These targets will be part of the Transit Agency Safety Plan and incorporated into the metropolitan and statewide planning processes.

FTA understands that submitting certain sensitive safety data to FTA may cause some concern within the industry regarding the public availability of that information. However, FTA will need to collect some safety information regarding hazards and mitigation measures that are used across the industry. By reviewing this information, FTA will be able to add value to the

industry by targeting research towards common hazards and by identifying and sharing leading best practices across the industry.

FTA seeks comments on the following questions:

1. What types of safety performance criteria do transit agencies already use?
2. What types of performance criteria should FTA consider?
3. Although FTA is not proposing specific performance criteria at this time, TRACS has suggested the following categories for which performance criteria should be set: 1) Casualties; 2) Operations; 3) Systems and Equipment; and 4) Organizational Culture and Human Performance. TRACS chose these categories because it believed that each was clearly associated with safety, and could be effectively integrated into decision making at the three levels of public transportation safety responsibility (Federal, State, and operating agency). Moreover, TRACS felt that initially, it may be necessary to limit safety performance measures to those for which adequate national-scale data exists, which tend to concern casualties and crashes. However, the plan should also define categories for leading indicators of safety risk, which the industry is encouraged to measure, and which FTA will work towards measuring at the national level as part of its overall SMS approach to transit safety. To what extent do these performance criteria categories sufficiently address the relevant safety information pertaining to public transportation agencies? Are there other safety performance categories that should be included?
4. What experience can transit agencies share on establishing desired outcomes, controls, and indicators to identify and track casualties, as well as safety issues related to operations, systems and equipment, and organizational culture and performance?

5. Are there specific performance criteria that FTA should consider establishing and tracking within each of those four categories listed in question 2, above?
6. Because transit agencies typically have very low collision rates, should FTA consider establishing measures of near-collisions (or “close calls”) to help identify circumstances that pose an increased risk of collisions? If so, how?
7. How should FTA streamline or improve existing reporting of safety information to the NTD?

B. State of Good Repair

Pursuant to 49 U.S.C. 5329(b)(2)(B), the National Safety Plan must include the definition of state of good repair. This definition must also be reflected in each Transit Agency Safety Plan through the setting of performance targets based on the definition and SGR standards set out in the National Safety Plan. 49 U.S.C. 5329(d)(1)(E). FTA envisions, the definition of state of good repair, and the condition of assets relative to that definition, will impact when a safety risk analysis is undertaken.

The definition of state of good repair will be established through the rulemaking to establish the National TAM System. The definition must include “objective standards for measuring the condition of capital assets of recipients, including equipment, rolling stock, infrastructure, and facilities.” 49 U.S.C. 5326(b)(1). In section VII of this ANPRM, FTA describes four methods for defining and measuring state of good repair based on the following: (1) asset age, (2) asset condition, (3) asset performance, and (4) a comprehensive assessment of assets.

In addition to the discussion on the National TAM System below, FTA seeks comment on the following questions specifically related to how to integrate the definition of SGR into the National Public Transportation Safety Plan:

8. How should the requirement for a definition of state of good repair and SGR performance measures be integrated into the new National Safety Plan?
9. How should safety considerations be addressed in the SGR performance measures and targets?
10. Should the safety SGR performance targets be the same as the SGR performance targets that will be required under the National TAM System?

C. Minimum Safety Performance Standards for Vehicles

Pursuant to 49 U.S.C. 5329(b)(2)(C), FTA is required to issue “minimum safety performance standards for public transportation vehicles used in revenue operations” other than rolling stock otherwise regulated by the DOT or another Federal agency. Those standards, “to the extent practicable,” must “take into consideration: (1) relevant recommendations of the National Transportation Safety Board; and (2) recommendations of, and best practices standards developed by, the public transportation industry.”

FTA is aware of existing voluntary consensus based standards for transit vehicles put forward by organizations such as the American Public Transportation Association (APTA).²² However, FTA understands that many of the standards are prescriptive standards or design standards rather than performance standards. Prescriptive standards and design standards define exactly how to do something – like a recipe. Prescriptive standards and design standards allow little or no flexibility. An example of a prescriptive standard would be: Grade crossing signals

²² APTA’s rail transit standards may be found at <http://www.apta.com/resources/standards/Pages/Rail-Standards.aspx>. APTA’s bus transit standards may be found at <http://www.apta.com/resources/standards/Documents/APTA-BTS-BC-RP-001-05.pdf>. An example of an APTA performance based standard is the Recommended Practice for Transit Bus In-Service Brake system Performance Testing available at <http://www.apta.com/resources/standards/Documents/APTA-BTS-BC-RP-001-05.pdf>.

shall have 100 amp-hour battery back-up. Performance standards define an end result, but allow

total flexibility on how that result is achieved. An example of a performance standard would be:

Grade crossing signals shall have back-up power for a minimum of 12 hours of operation. MAP-

21 explicitly calls for the development of minimum safety performance standards for vehicles. In fact, Congress stated in the report accompanying the Public Transportation Act of 2010, that they did not intend for FTA to replicate the FRA regulatory model, with highly specific and prescriptive regulations related to public transportation safety.²³ Thus, many of the existing standards that apply to vehicles within FRA's jurisdiction would not meet the MAP-21 requirement that FTA create minimum safety performance standards for vehicles. However, FTA still seeks the public's comments on several questions regarding vehicle standards.

Presently, however, FTA's priority with respect to vehicles is issuing a proposed rule²⁴ to establish a bus testing pass/fail standard as required by 49 U.S.C. 5318(e)(2). After FTA publishes a final bus testing rule, buses may only be purchased with FTA funds if the vehicles were tested and received a passing score that will be established by rule. In addition, once FTA

²³ S. Rep. No. 111-132, at 4 (2010). Available at [http://thomas.loc.gov/cgi-bin/cpquery/R?cp111:FLD010:@1\(sr232\)](http://thomas.loc.gov/cgi-bin/cpquery/R?cp111:FLD010:@1(sr232)).

²⁴ RIN 2132-AB11.

establishes minimum vehicle performance standards for buses, FTA-funded buses must also meet those standards.

FTA will work with the transit industry to identify appropriate performance-based vehicle standards for both rail and bus vehicles, and develop an appropriate implementation schedule based on objective data. In addition, FTA will take into consideration NTSB recommendations and leading industry practices.

FTA seeks comments on the following questions:

11. In addition to APTA's voluntary consensus standards, what other sources of safety performance standards for transit vehicles are available that FTA should consider?
12. What criteria should be used to identify, prioritize and develop performance-based vehicle standards?
13. To what degree should existing voluntary consensus standards be considered or used in developing and implementing a performance-based vehicle standards regime?
14. Specific to rail vehicle standards, what areas or categories of standards would yield the greatest safety improvement if required as a minimum safety performance standard for the public transportation industry? What areas or categories of standards would yield the most cost effective safety improvements?
15. Specific to bus vehicle standards, what areas or categories of standards would yield the greatest safety improvement if required as minimum safety performance standards for the public transportation industry? What areas or categories of vehicle standards would yield the most cost effective safety improvements?

16. What NTSB recommendations or industry leading practices should FTA consider most urgently?

To date, the NTSB has only issued recommendations to FTA for rail transit vehicles, including the following:

R-02-19: Require that new or rehabilitated vehicles funded by Federal Transit Administration grants be equipped with event recorders meeting Institute of Electrical and Electronics Engineers (IEEE) Standard 1482.1 for rail transit vehicle event recorders. IEEE 1482.1-1999 Standard for Rail Transit Vehicle Event Recorders or equivalent.

R-06-05: Develop transit railcar design standards to provide adequate means for safe and rapid emergency responder entry and passenger evacuation.

- RT-S-VIM-20-10 Standard for Emergency Lighting System Design for Rail Transit Vehicles or equivalent,

- RT-S-VIM-021-10 Standard for Emergency Signage for Rail Transit Vehicles or equivalent, and

- RT-S-VIM-022-10 Standard for Low-Location Emergency Path Marking for Rail Transit Vehicles or equivalent.

R-06-06: Develop minimum crashworthiness standards to prevent the telescoping of transit railcars in collisions and establish a timetable for removing equipment that cannot be modified to meet the new standards.

- ASME RT-2 2008 Safety Standard for Structural Requirements for Heavy Rail Vehicles or equivalent, and

- ASME RT-1 2009 Safety Standard for Structural Requirements for Light Rail Vehicles or equivalent.

V. The Public Transportation Agency Safety Plan

Section 5329(d)(1) of title 49, U.S.C., requires each recipient of section 53907 Urbanized Area Formula funds or section 5311 Rural Area Formula funds to certify that it has established a comprehensive Transit Agency Safety Plan. States may also draft and certify plans for rural areas or for small public transportation providers in urban areas. FTA envisions the Transit Agency Safety Plan as the mechanism through which recipients demonstrate their compliance with the National Safety Plan, by, among other things, setting targets based on the safety performance criteria and standards set out in the National Safety Plan.

The Transit Agency Safety Plan is also where FTA envisions each transit agency to illustrate its practice of SMS. Ultimately, FTA envisions that the Transit Agency Safety Plan will reflect each transit agency's ongoing processes related to answering the following four fundamental SMS questions:

- What will likely be the cause of the transit agency's next accident? Is the transit agency doing risk monitoring to discover and address those potential causes?
- How does the transit agency know the likely cause of the next accident? Does the transit agency have internal auditing, required and voluntary reporting, data collection and analyses, and tracking to indicate that personnel are accurately informed about the biggest risks?
- What is the transit agency doing about to mitigate the risk? Does it have a viable strategy or action plan, along with appropriate budgetary and staff resources, in place to control or mitigate the risks?
- Is the strategy or action working? Does the agency have measures in place that will tell agency staff if the strategy or action plan is working to control or mitigate the identified risks?

FTA seeks comments on the SMS approach in general, and on the following questions:

17. Are there barriers or challenges to adopting SMS principles by recipients for any particular mode of transit? If so, which mode, and what are the barriers or challenges?
18. What type of information and technical assistance would the public transportation industry need from FTA in order to facilitate the adoption and implementation of SMS practices?
19. If SMS or elements of SMS are currently being practiced within your agency, how is it being carried out? What are the most effective means to implement SMS and how should it be scaled to accommodate both large and small public transportation systems? FTA also seeks examples and ideas from smaller agencies using SMS.
20. Are there alternative safety management approaches that FTA should consider?

A. Plan Requirements

Pursuant to 49 U.S.C. 5329(d), each Transit Agency Safety Plan must include, at minimum, the following:

- A requirement that the board of directors, or equivalent entity, approve the Transit Agency Safety Plan and any updates to the plan;
- Methods for identifying and evaluating safety risks throughout all elements of the recipient's public transportation system
- Strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions;
- A process and timeline for conducting an annual review and update of the plan;
- Performance targets based on the safety performance criteria and state of good repair standards set out in the National Safety Plan;

- Assignment of an adequately trained safety officer who reports directly to the general manager, president, or equivalent officer of the recipient; and
- A comprehensive staff training program for the operations personnel and personnel directly responsible for safety.

For the last three decades the public transportation industry has implemented plans and programs based on the system safety principles outlined in the [Military Standard 882](#)²⁵ series. This approach focuses on the application of engineering and management principles, criteria, and techniques to achieve an acceptable level of safety throughout all phases of a system lifecycle. Currently, under 49 CFR part 659, rail fixed guideway public transportation providers are required to develop and carry out System Safety Program Plans (SSPP) and System Security Plans (SSP). There is no comparable requirement for bus transit providers.

Some of the components of the SSPPs and SSPs are responsive to the new requirements in 49 U.S.C. 5329(d). For example, SSPPs and SSPs must address “methods for identifying and evaluating safety risks” by including sections devoted to hazard analysis and management, threat and vulnerability assessment, safety data acquisition and analysis, internal audits and reviews, accident and incident investigation and reporting, and emergency planning and preparedness. Despite the similarities in the components of these plans, implementation of the existing requirements for the SSPPs and SSPs has been inadequate and inefficient.²⁶ Major accidents often have underlying organizational antecedents with multiple causes involving people operating across many levels or functions in an organization. It follows that predicting

²⁵ Military Standard 882 is available at <http://www.system-safety.org/Documents/MIL-STD-882E.pdf>.

²⁶ GAO, Rail Transit: Observations on FTA’s State Safety Oversight Program, GAO-06-997T (Washington, D.C.: July 19, 2006), available at <http://www.gao.gov/assets/130/123829.pdf> and Rail Transit: Additional Federal Leadership Would Enhance FTA’s State Safety Oversight Program, GAO-06-821 (Washington, D.C.: July 26, 2006), available at <http://www.gao.gov/assets/260/250860.pdf>, and “Oversight of Rail Rapid Transit Safety” available at http://www.nts.gov/doclib/recletters/1991/R91_33_36.pdf.

and preventing major accidents requires addressing the root causes based in organizational practices, management systems, and culture. As such, implementing the Transit Agency Safety Plan through the SMS approach will allow the transit industry to build on its experience with system safety by bringing management processes and organizational culture more squarely into the system safety engineering and hazard management framework.

Until FTA promulgates regulations for both the Transit Agency Safety Plans under 49 U.S.C. 5329(d) and a new regulation for the SSO Program under 49 U.S.C. 5329(e), the existing 49 CFR part 659 SSPPs and SSPs will remain in effect and serve as interim rail Transit Agency Safety Plans. Until a final rule is issued, there will be no comparable requirement for bus transit providers. However, FTA encourages both rail and bus transit providers to begin implementing the statutory requirements of the Transit Agency Safety Plan into their daily operations now, even as they await issuance of final rules since any final rules will be consistent with the statutory requirements.

FTA plans to conduct pilot programs and provide technical assistance to aid in this transitional process. Through pilot projects, FTA and the industry will test, update and continuously improve proposed public transportation safety concepts. Evaluations of pilot projects will help inform FTA's development and provision of technical assistance.

With respect to the implementation of the Transit Agency Safety Plan, FTA seeks comment on the following questions:

21. Risk-based analysis can be applied in analyzing human factors such as employee fitness for duty (e.g. being physically and mentally qualified, not suffering from acute or cumulative fatigue, not being impaired by use of alcohol and controlled substances, etc). Agencies should also consider how to address situations where medical intervention may be

appropriate (such as screening for sleep disorders and providing treatment for persons with sleep disorder diagnoses), as well as situations where progressive remedial interventions, up to and including termination, might be needed for certain safety-sensitive positions. Do agencies currently apply a risk based-approach in managing safety risks related to human factors? If so, how? What are the challenges associated with adopting a risk-based approach to these management functions?

22. Many rail transit agencies also operate bus systems. FTA seeks comment from those rail transit agencies that already include bus or other public transportation mode operations in one agency plan. Has inclusion improved safety of the non-rail modes? What are the benefits and costs to including all transit mode operations into one Transit Agency Safety Plan?
23. What attributes, functions, and authorities should FTA require of an “equivalent entity” when there is no board of directors? If a transit agency is not governed by a board of directors, what additional authorities would an “equivalent entity” need to properly review and approve a Transit Agency Safety Plan?
24. How should performance milestones, targeted safety risks, and costs be considered in developing and evaluating risk mitigation strategies? FTA seeks examples of how public transportation agencies have engaged in such activities.
25. Public transportation agencies must establish a process and timeline for conducting an annual review and update of the transit agency safety plan. 49 U.S.C. 5329(d)(1)(D). These plans will be self-certified, allowing the public transportation provider’s board of directors (or equivalent entity) to determine whether the public transportation provider’s agency safety plan is adequate. FTA intends to maintain the authority to review transit agency safety plans

during triennial reviews or in the event that FTA identifies circumstances posing a significant risk. FTA seeks comment regarding the appropriate role, if any, for States and FTA in the Transit Agency Safety Plan annual review process.

26. For those public transportation providers that are currently required to have safety plans pursuant to 49 CFR part 659, how is the effectiveness of the safety plan measured?
27. In accordance with 49 U.S.C. 5329(d), public transportation agencies will develop a comprehensive safety training program for operations personnel and personnel directly responsible for safety. What essential core competencies are needed to adequately train public transportation agency operations personnel and personnel responsible for safety of the agency? Should a transit agency's personnel training requirements be scaled based on the size of the agency? In what ways can FTA minimize the costs of implementation (e.g. allowing for shared development of curricula)?
28. What training do transit agency operations personnel and personnel directly responsible for safety currently receive? What is the curriculum? How long does it take to complete? When and where is it completed? Who provides the training? How is the effectiveness of these training programs evaluated?
29. Each public transportation provider must identify a chief safety officer who is responsible for operational safety and who reports directly to the general manager or equivalent officer. FTA seeks comment on what other responsibilities might be combined with this role, particularly in smaller operations where the same individual may function as the provider's general manager, operations manager and safety officer? FTA also seeks comment on how the combination of such roles causes any conflict between safety and any other interest in the transit system's operation?

30. What strategies could reduce the burden of producing and updating the Transit Agency Safety Plan, as well as transmitting key safety information to FTA and the States?
31. While the statute sets minimum plan requirements, FTA seeks comment on whether to establish less stringent regulatory requirements for small public transit providers, and what specific areas may be most conducive to different requirements based on the transit agency's size. For example, should regulations permit smaller transit providers to employ less expensive methods for identifying and evaluating safety risks than larger entities? Should FTA's regulations establish different safety performance criteria for smaller transit providers? Should the training requirements be different for smaller transit providers? If so, how?
32. FTA is required to notify the DOT Crisis Management Center (CMC) of significant newsworthy events affecting public transportation (such as transit collisions that include casualties, rail transit derailments, emergency evacuations, major crimes, significant revenue service disruptions and other related transit events). Currently, rail transit agencies are required to provide such notifications (within two hours of the incident) to their State Safety Oversight Agency, per 49 CFR 659.33. However, bus transit agencies provide incident notifications to FTA on a voluntary basis, typically as requested from FTA regional offices. FTA seeks to implement a requirement that all modes of transit agencies provide FTA with near real-time event notifications (within the two-hour timeframe). For rail transit agencies this could be accomplished by copying FTA on their required notifications to their SSOAs. For bus and other non-rail modes of public transportation, this may require using a new template or form for notifying FTA. What methods might transit agencies best use to comply with such a requirement? Are there more effective or efficient methods or processes to

report these incidents in real time? Should FTA consider alternative requirements for small transit providers?

B. The State's Role

Unlike 49 U.S.C. 5329(e), which establishes a clear role for States in overseeing the safety of rail fixed transit systems through the SSO program, the statute does not articulate a similar role for States with regard to the oversight of non-rail public transportation providers. States may, however, draft or certify transit agency safety plans for small section 5307 recipients and section 5311 recipients, including tribal transit recipients.

FTA seeks comment on the following questions:

33. How should FTA define small 5307 provider? Should the definition be based on the size of the agency (e.g., number of vehicles, annual passenger counts, annual revenue miles, annual budget, etc.)? Please provide the basis for your suggestion.
34. How might States draft a single state-wide Transit Agency Safety Plan that reflects implementation of SMS at the individual transit agency level? How would compliance with a single State plan work? Given the need for the plan to reflect individual agency processes, what technical assistance might FTA provide to States or agencies drafting and certifying plans? Can the number of transit providers seeking either option be predicted or quantified?
35. Do some States lack sufficient technical expertise or resources to draft or certify individual Transit Agency Safety Plans for small section 5307 and section 5311 public transit providers? If so, please explain?
36. How many plans would each State be expected to prepare?
37. If the State's role was limited to the certification of individual Transit Agency Safety Plans, what administrative burden would be imposed upon the State?

38. Would it reduce the overall administrative burden if each State prepared a standard Transit Agency Safety Plan template or model plan that could be used by each small urban and rural transit provider within its jurisdiction?
39. Is it practicable to create a multi-state or nation-wide model plan that could be shared between States?
40. If a State were to implement a standardized plan for small transit providers within its jurisdiction, would any safety factors be risked by adopting a one-size-fits-all approach, or must each plan be customized for each transit provider?
41. Should States that write and certify Transit Agency Safety Plans provide oversight of those agencies?
42. Should FTA require State DOT's to maintain a list of certified subrecipients that have established safety plans or that are covered by the statewide plan? If so, how should this list of certified subrecipients be maintained and updated?
43. How should FTA apply the safety plan provisions to recipients of the section 5307 Tribal Transit Formula Program and Tribal Transit Discretionary Program?
44. What resources will States need to carry out the drafting or certification functions?
45. Should States have a role in providing oversight of non-rail transit systems within their jurisdiction and, if so, what would be an estimate of the time required to perform such a role?
46. How are States that are currently performing this function carrying out their oversight responsibility for non-rail modes? Could this role be streamlined by combining the bus oversight duties into each State's existing rail oversight program?

47. If States did have a role in providing oversight of bus-only systems, how would States without rail fixed guideway systems (and therefore no established SSO Program) provide that oversight?

VI. The Public Transportation Safety Certification Training Program

Pursuant to 49 U.S.C. 5329(c)(1), FTA is required to establish a Public Transportation Safety Certification Training Program (Safety Certification Training Program) applicable to Federal and State employees, contractors who conduct oversight, and those employees at transit systems who are responsible for safety oversight.

Currently, FTA funds and supports a wide variety of safety training for the transit industry. FTA-sponsored training is developed in collaboration with transit industry professionals, industry experts, and professional training institutes. Courses are conducted nationally, primarily by the National Transit Institute, Transportation Safety Institute, Volpe National Transportation Systems Center, Johns Hopkins University, and the Transportation Cooperative Research Program. Although the current training regime presents recommendations and current thinking about effective safety, security, and emergency preparedness strategies, it is strictly voluntary.

FTA is developing proposed Interim Provisions for safety certification and training pursuant to 49 U.S.C. 5329(c)(2). Soon, FTA will publish the proposed Interim Provisions in the Federal Register for public notice and comment and will provide the final Interim Provisions as quickly as possible thereafter. The specific goal of the Interim Provisions is to enhance the technical qualifications of Federal and State personnel, and their designated contractors responsible for public transportation safety oversight, as well as public transit agency personnel

who are directly responsible for safety oversight in advance of a final rule for the Safety Certification Training Program. These Interim Provisions will remain in effect until FTA issues a final rule for the Safety Certification Training Program. Please direct your comments about the Interim Provisions to that docket, and any comments regarding the final Safety Certification Training Program to the docket for this ANPRM.

FTA intends for the Safety Certification Training Program to build upon the Interim Provisions. As a first-step toward a final regulation, FTA is organizing its training approach around a series of competencies and basic skills that Federal, State, and transit employees and contractors charged with overseeing transit safety need in order to perform their oversight duties. Developing the Safety Certification Training Program on a foundation that focuses on competencies and training outcomes, rather than static requirements, allows for greater flexibility and positions FTA to be more responsive when addressing emerging safety trends.

The competencies are based on SMS principles and the technical capabilities required for examining and overseeing implementation of safety program elements in the transit industry. The competencies and technical training are also designed to address gaps in safety oversight of public transportation systems identified in NTSB accident investigations, FTA's SSO audits and program, triennial reviews and annual reports submitted by SSO agencies, and NTD assessments and special studies. A list of proposed competency areas and accompanying learning objectives are in the docket for this ANPRM.

Applicability

As required by law, the Interim Provisions will apply to State employees, contractors who conduct oversight, and recipients of sections 5307 and 5311 funds for purposes of training

transit agency personnel who are directly responsible for safety oversight. FTA intends for the requirements of the final Safety Certification Training Program to be more explicit than the Interim Provisions. For instance, under the proposed Interim Provisions, recipients will identify those personnel with direct safety oversight responsibilities, but the final rule for the Safety Certification Training Program may lead to regulations that identify specific positions that have direct responsibility for safety oversight. Thus, the individuals holding those positions may be covered by the final regulation.

Eligible Activities

Recipients of section 5307 or section 5311 funds may use up to 0.5 percent of apportioned formula funds to pay for up to 80 percent of the costs of an applicable transit agency employee's participation in the Safety Certification Training Program. 49 U.S.C. 5329(e)(6)(C)(iv).

The Training Certification Process

The safety oversight functions and responsibilities of each position will be different and will require discrete skill-sets. For instance, at the Federal level, FTA's oversight responsibilities include ensuring that SSOA personnel are properly trained and adequately resourced to perform their safety oversight responsibilities within their respective jurisdictions. At the State level, SSOA personnel are responsible for direct safety oversight of those rail transit systems under their jurisdiction. And, at the local level, public transportation agency personnel directly responsible for safety oversight have the responsibility for developing and implementing safety oversight within their respective agencies.

FTA seeks comment on the following questions:

48. What other safety-related competency areas or training outcomes should be identified?
49. Are all of the specific competencies already identified necessary?
50. Should personnel be required to obtain certification prior to starting a position, or should they be given a specific time frame to obtain safety certification after starting a position? What are the pros and cons of each option?
51. How often should personnel be required to receive refresher training?
52. Which transit agency positions are directly responsible for safety oversight of bus and/or rail? When answering this question, please refer to the table of competencies posted in the docket for this ANPRM.
53. Which transit agency operational positions are directly responsible for safety oversight? What are their job duties? What type of training do these employees currently receive?
54. Do members of transit agency board of director's or other equivalent entity currently receive any type of safety or risk management training? If so, what does the training cover?
55. How are personnel with transit safety oversight responsibility currently trained? How long does the training take? How is the effectiveness of the training evaluated? What type of training do oversight personnel need that is not already easily available within the transit industry?

VII. The National Transit Asset Management System

A. Overview and Considerations for Small Operators

The various elements of the National Transit Asset Management (TAM) System will apply very broadly to the many public transit agencies that receive funds from FTA. Most

importantly, all recipients and subrecipients of FTA grants must develop a TAM Plan. 49 U.S.C. 5326(b)(2). Each recipient is further required to set SGR performance targets. 49 U.S.C. 5326(c)(2). Finally, recipients of the section 5307 or 5311 formula programs must also report asset condition data to the NTD. 49 U.S.C. 5335 and 5326(c)(3).

In FTA's Online Dialogue, conducted in early 2013, some commenters suggested that the best approach for implementing the requirement for a TAM Plan might be through a single statewide plan for subrecipients of certain statewide grants. While FTA recognizes the desire to minimize the administrative burden on small subrecipients, the statute requires that all FTA "recipients and subrecipients develop a transit asset management plan." Thus, while the statute specifically contemplates a single statewide safety plan for small operators, FTA interprets the language of the statute to specifically exclude a statewide TAM Plan.

Further, many commenters to the Online Dialogue suggested that small transit systems (and small rural transit systems in particular), should have simpler and fewer requirements for smaller transit systems. FTA seeks to further develop these suggestions and seeks additional comments on how to be sensitive to the needs of small transit operators through this ANPRM. In particular, FTA notes that most small transit systems have already developed a detailed asset inventory for revenue vehicles in order to meet their NTD reporting requirements. This may allow FTA to set simpler TAM Plan requirements for small systems that would require assembling asset inventory information for assets other than revenue vehicles, and then also creating an investment prioritization.

The requirement that each recipient and subrecipient of FTA funds develop a TAM Plan represents a significant shift in the nature of FTA's financial assistance to the transit industry. All beneficiaries of FTA financial assistance will be required to take a strategic approach to

thinking about the life-cycle needs of the assets underlying their service, and to deliberately consider how to strike an appropriate balance between the competing needs of operations, maintenance, reinvestment, and system expansion. Larger organizations will be required to systematically engage the differing perspectives of operations, safety, planning, engineering, budget, and information technology in order to include an organization-wide approach in the resulting plan. Smaller organizations may be permitted to take a simpler approach in developing an investment prioritization based on asset inventory information that is already largely on-hand.

Performance Targets

MAP-21 requires that all recipients set SGR performance targets, based on the definition of state of good repair established by FTA which must include objectives standards for measuring the condition of capital assets, including equipment, rolling stock, infrastructure and facilities. Subrecipients will not be required to set SGR performance targets directly; the recipient will set a performance target on their behalf. FTA intends to define state of good repair, and to set the SGR performance measure in a way that will allow for and provide a simple approach for small recipients and for grant recipients setting SGR targets on behalf of small subrecipients.

Transit Asset Management Plans

MAP-21 requires that all FTA recipients and subrecipients have a TAM Plan. The law specifies that plans, at a minimum, must have capital asset inventories and condition assessments and investment prioritization. As noted above, FTA's recipients and subrecipients in our two primary formula programs, section 5307 and 5311, already maintain an asset inventory for revenue vehicles and report that information to the NTD. Expanding these inventories to include

the one or two facilities for which small recipients and subrecipients have capital responsibility should not be particularly burdensome. Although FTA has not yet developed the specific requirements for the TAM Plan, FTA intends for the TAM Plan required of small operators to be relatively simple and based on the life-cycle of the revenue vehicles and facilities in the operator's asset inventory.

National Transit Database (NTD) Reporting

Currently NTD reporting requirements apply to section 5307 and section 5311. Recipients and beneficiaries²⁷ of the section 5307 program must report directly to the NTD. Recipients of section 5311 grants report directly to the NTD on behalf of their subrecipients. In all cases, recipients and subrecipients currently report a detailed asset inventory for revenue vehicles to the NTD. FTA will propose specific requirements for reporting an inventory of assets other than revenue vehicles to the NTD in a future notice in the Federal Register. The initial notice will likely only apply to reports from urbanized areas. A subsequent notice will likely cover additional reporting to the NTD Rural Module. Additionally, since revenue vehicles are the primary assets for small grant recipients in urbanized areas, the additional reporting burden on the basis of the one or two facilities for which the small recipient might have capital responsibility will be quite small. FTA will publish in the Federal Register a separate notice on this topic with more information and an opportunity to comment on the burden of these reporting requirements on small systems.

FTA recognizes that meeting the new requirements for transit asset management will not be easy and may require additional resources and expertise. In many cases funds from FTA's

²⁷ A beneficiary is a transit operator that benefits from a section 5307-funded project, but is not a direct recipient of the grant. For example, a rail system may benefit from a facility constructed using a section 5307 grant to a municipality.

core formula grant programs may be used to cover costs related to implementing the TAM requirements. For example, expenses that may be eligible for FTA funding include the software associated with an asset inventory system, tools for estimating capital investment needs over time, and for a decision support tools for investment prioritization. Similarly, costs related to assembling and maintaining an asset inventory and condition inspections are generally eligible preventive maintenance costs that can be funded by capital assistance. Finally, costs related to creating the TAM Plan itself are an eligible expense under the section 5307 program, the section 5311 program, and the section 5337 program. Recipients should consult with their FTA Regional Office with specific questions regarding grant eligibility.

FTA seeks comments on the following questions:

56. How should the requirements for the TAM Plan be tailored to different sized operators?

Small operators will inherently have fewer assets and less-complex asset inventories, but what other steps can FTA take to minimize the burden on them?

57. How should FTA define small operator for purposes of the TAM Plan requirements? Please be as specific as possible. Should this definition use the same criteria for determining a small operator for purposes of a Transit Agency Safety Plan that is developed or certified by a State?

58. How should the requirements for a TAM Plan be handled for subrecipients of the section 5307 program – including both subrecipients of State Departments of Transportation (DOTs) and of individual large transit systems, for subrecipients of the section 5311 program, and for subrecipients of the Enhanced Mobility of Seniors and Individuals with Disabilities Program (section 5310)?

59. Should FTA require State DOT's and urbanized area designated recipients to maintain a list of certified subrecipients that have established? If so, how should this list of certified subrecipients be maintained and updated?

60. How should FTA apply the various TAM provisions to recipients of the section 5311 Tribal Transit Formula Program and Tribal Transit Discretionary Program?

61. How should the requirements for a TAM Plan apply to grant recipients who use an asset that is owned by a third party? Responses should consider that these assets may or may not have been purchased with Federal funds. Also, the grant recipient may indirectly contribute to the capital maintenance of the asset through a rental or lease payment, or in some cases the grant recipient may not make a payment to the owner or operator of the asset.

62. Should FTA allow States to develop a Statewide TAM Plan?

B. Defining State of Good Repair

Under 49 U.S.C. 5326(b)(1), FTA is required to establish “a definition of the term state of good repair (SGR) that includes objective standards for measuring the condition of capital assets of recipients, including equipment, rolling stock, infrastructure, and facilities.” This definition will have a number of important consequences, including defining eligibility for projects under the State of Good Repair Grants Program (49 U.S.C. 5337(b)(2)) and defining what projects are excluded from eligibility under the Core Capacity Improvement Grants Program. 49 U.S.C. 5309(a)(2). This definition will also be used for grant applicants to the Pilot Program for Expedited Project Delivery to certify that their existing system “is in a state of good repair.” Section 20008(b) of MAP-21. Further, the National Public Transportation Safety Plan must include the definition of state of good repair. 49 U.S.C. 5329(b)(2)(B). As discussed in

Section II, FTA envisions that the definition of state of good repair will play a role in a transit agency determining whether it needs to perform a safety risk assessment for those assets that fall below the SGR threshold.

Finally, the definition of state of good repair, which itself must include “objective standards for measuring the condition” of transit assets, will also form the basis for the SGR performance measures to be established by FTA. FTA grant recipients will set transit SGR performance targets, and report to FTA on their progress towards achieving that target. These targets will then be integrated into the Metropolitan and Statewide Planning Processes by Metropolitan Planning Organizations (MPOs) and State. See 49 U.S.C. 5326(c), 49 U.S.C. 5303 and 49 U.S.C. 5304. In particular, the SGR targets will be integrated into the performance-based planning processes and require consideration of transit SGR needs side-by-side with highway system goals in planning for the investment of Federal transportation funds.

In defining the term state of good repair, it is difficult to separate the definition from how it will ultimately be measured. For example, FTA used a definition of state of good repair in its [2010 Conditions and Performance Report](#)²⁸ using a numerical (1-5) condition rating scale and the Transit Economic Requirements Model (TERM).²⁹ In that report, an asset is considered to be in a state of good repair when the condition of that asset is estimated by the model to be above a condition rating value of 2.5, which is the mid-point of the marginal range on the rating scale. These ratings are primarily derived from measurements of asset age. The model consists of pre-defined “decay curve” relationships between asset age and asset condition for each of the several

²⁸ The 2010 Conditions and Performance Report to Congress is available at http://www.fta.dot.gov/documents/2010_CP_Report_FINAL.pdf.

²⁹ The TERM model consists of a database of transit assets and deterioration schedules that express asset conditions principally as a function of an asset’s age. Vehicle condition is based on an estimate of vehicle maintenance history and major rehabilitation expenditures in addition to vehicle age; the conditions of wayside control systems and track are based on an estimate of use (revenue miles per mile of track) in addition to age.

hundred defined asset classes. The model takes an asset inventory with asset ages as an input, and then provides estimated conditions for each of the assets as the output. Thus, the measurement of SGR in this case, being below a rating value of 2.5 on a 1-5 scale, is intrinsically tied to the age-based approach for defining state of good repair. FTA does not believe that this numerical measure satisfies the statutory requirement that the definition include “objective standards for measuring the condition of assets.”

Altogether, in many respects, the definition of state of good repair is the cornerstone on which all other aspects of the National TAM System will be built. This section describes four potential approaches that could be used to define and measure state of good repair, including objective standards for measuring the condition of assets. These approaches are, as follows:

- Asset age;
- Asset condition;
- Asset performance; or,
- A comprehensive (combined) approach.

None of these approaches represent a perfect means of defining and measuring state of good repair. In particular, these approaches all make various trade-offs between precision and reporting burden. In general, the simpler and less-burdensome the nature of the approach is, the less precise that approach will be for defining and measuring state of good repair. On the other hand, the more precise a particular approach is at defining and measuring state of good repair, then so is the overall burden and complexity of that approach.

The guidance provided by statute for selecting one of these approaches is relatively limited. The definition must “include objective standards for measuring the condition of capital assets;” and must at least be applicable to “equipment, rolling stock, infrastructure, and

facilities.” The definition should also lend itself to an implementable performance measure for purposes of 49 U.S.C. 5326(c) and the performance-based planning process in 49 U.S.C. 5303 and 5304. FTA recognizes that multiple approaches are capable of satisfying these requirements, including the four approaches identified above.

In our online dialogue, several commenters suggested that the definition of state of good repair should be kept “simple and short” or “simple and high level.” While FTA appreciates the virtues of simplicity, FTA also notes that the statute does require the definition to include “objective standards for measuring the condition of capital assets.” Thus, the definition of state of good repair must be detailed enough to allow for the establishment of standards.

Another commenter proposed that, “if a vehicle can be operated safely, the state of good repair definition should not preclude that.” Although there often are safety implications if assets are not in a state of good repair, FTA does not intend to solely define state of good repair in terms of safety. Poor asset condition also has other important consequences beyond safety, such as reduced reliability, increased maintenance costs, diminished system performance, which delays transit riders from getting to their destinations, and decreased passenger comfort and aesthetics. FTA’s goal in defining state of good repair is to draw attention to all of these negative impacts, as well as safety risks. When an asset is identified as not being in a state of good repair, this will trigger the need for a safety risk analysis in the Transit Agency Safety Plan, which may result in the implementation of appropriate controls.

FTA has developed a State of Good Repair [White Paper](#)³⁰ that provides greater detail on each of the proposed approaches to defining state of good repair which is included in the docket for this ANPRM. Commenters are strongly encouraged to review the White Paper alongside this ANRPM.

³⁰ Available at www.fta.dot.gov/sgr.

(1) Asset Age

This approach relies on the assumption that most assets provide reliable service for a predictable period of time (adjusted by level of usage for some types of assets) after which they should be replaced. Although assets may continue to function safely and effectively at ages beyond this point, it is assumed that failure to replace assets at the end of this period of useful life leads to decreased performance, increased risk of in-service failure, and higher maintenance costs.

This approach establishes a maximum useful life for many assets, beyond which an asset is considered to be part of the state of good repair backlog. This is not to be confused with the minimum useful life, with which many FTA recipients may already be familiar and which represents the age before which an asset should not be replaced.

The primary benefits of this approach are its simplicity, consistency, and ease of implementation, while the primary drawbacks of this approach are its lack of precision in identifying the actual conditions of specific assets. For example, a well-maintained asset might be in suitable condition beyond its maximum useful life, whereas an asset with deferred maintenance might reach a deteriorated condition before reaching its maximum useful life. For a more detailed analysis of this approach please see the State of Good Repair [White Paper](#).

(2) Asset Condition

This approach is based on periodic condition assessments of all assets using a set of standardized procedures and criteria. Assets with longer life expectations, such as buildings or tunnels, can be inspected less frequently than assets with shorter life expectancies, such as

vehicles. Small or numerous assets (e.g. rail ties) may be sampled, as determined by standard procedures, with the average condition of the sample being applied to all assets in the category.

This approach would require FTA to develop significant guidance on how and when to assess the conditions of different classes of assets, including parameters for sampling, if necessary. The primary benefit of this approach is that it identifies the actual condition of each asset based upon its actual usage and maintenance history, while the primary draw-back is that it is significantly more labor-intensive for operators to complete and slightly less-consistent than the age-based approach. For a more detailed analysis of this approach please see the State of Good Repair [White Paper](#).

(3) Asset Performance

This approach is based on a regular, comprehensive, assessment of a system's performance and relies upon the assumption that as assets age, they will become less durable and reliable, resulting in decreased operational performance. In many respects, the ability of an asset to safely and reliably perform its assigned function at a full-performance level is at the heart of state of good repair. This approach has not been tested in the United States but was the basis for public oversight of the public-private partnership that briefly ran the London Underground.

A performance-based approach would require far tighter integration of operations and capital maintenance than currently exists at most transit systems. It would also involve more FTA oversight of transit operational performance measures at a much-greater level of detail than currently occurs today. The primary benefit of this approach is that it is focused on the actual outcomes of being in a state of good repair, or not. The primary draw-back of this approach is that it is relatively untested, and the requisite data infrastructure to support this approach may

still need to be developed. For a more detailed analysis of this approach please see the State of Good Repair [White Paper](#).

(4) Comprehensive Assessment of Assets

This approach combines the previous approaches to look at the age, condition, and performance of a system's assets, as well as to incorporate information on maintenance history for each asset. Condition ratings are calculated as a weighted combination of metrics for all the above considerations to produce a single rating for the asset. This approach would produce the most-comprehensive results, and would also involve FTA developing significant additional guidance in order to implement it.

The primary benefit of this approach is that it takes into consideration all the factors that contribute to state of good repair, whereas the primary draw-back of this approach is that it is clearly the most-complex and most-labor intensive approach for transit operators and FTA to implement. For a more detailed analysis of this approach please see the State of Good Repair [White Paper](#).

FTA seeks public comment on the following questions:

63. What is the appropriate balance that FTA should strike in defining state of good repair between achieving precision in measuring state of good repair vs. minimizing the cost of measuring state of good repair?

64. What are the relative merits and drawbacks of each approach for defining state of good repair for FTA grant recipients and subrecipients of varying sizes, and/or with different modes? Should FTA consider implementing different approaches for different transit modes, or for grant

recipients and subrecipients of different sizes? If so, what modal delineations or size distinctions should FTA adopt?

65. What are the relative merits and drawbacks of each approach for defining state of good repair for different classes of transit assets? Should FTA consider implementing different approaches for different asset classes? If so, what distinctions should FTA adopt between asset classes?

66. Should FTA implement different approaches for defining state of good repair based on a combination of the size of the recipient and the class of asset, particularly given the role of state of good repair in the SMS prescribed risk management process? If so, what delineations should FTA make?

67. What are the relative merits and drawbacks of each approach for purposes of implementing the required performance measures and performance targets?

68. If a condition-based approach (or the comprehensive approach) is adopted in whole, or in part, for certain asset classes or for certain recipients, what requirements and procedures should FTA establish for the requisite condition inspections?

69. If a performance-based approach (or the comprehensive approach) is adopted in whole, or in part, for certain asset classes or for certain recipients, what requirements and procedures should FTA adopt for collecting the necessary performance data to implement this approach?

70. How should the definition of state of good repair balance the benefits of improved safety, performance, comfort, and other factors?

71. If the comprehensive approach is selected for one or more classes of assets, how should FTA define the weights between various aspects of this approach?

72. To what extent should FTA include measures of the intensity of usage of an asset in its

measure of state of good repair?73. How do transit agencies currently evaluate the state of good

repair of their systems? What criteria are used for this evaluation? What are the costs of the evaluation?

74. Are there any other approaches that FTA should consider?

C. Transit Asset Management Plans

(1) Plan Requirements

Under 49 U.S.C. 5326(b)(2) every recipient and subrecipient of FTA funds is required to develop a TAM Plan. The TAM Plan must include, at a minimum, capital asset inventories and condition assessments, decision support tools, and investment prioritization. These requirements apply to every recipient and subrecipient that either operates transit services or manages transit assets. Section 5326(a)(1) specifically states that this includes “equipment, rolling stock, infrastructure, and facilities for use in public transportation owned or leased by a recipient or subrecipient of Federal financial assistance under this chapter.”

The foundation of any effective TAM Plan is a good capital asset inventory. A transit agency must know what assets it has in order to plan how to manage those assets. Although FTA is preparing a separate Federal Register notice on collecting asset inventory information through the NTD, that is a separate subject from what should be included in the capital asset inventory of the TAM Plan. This is particularly true for larger transit systems and transit systems with rail modes, where the level of detail needed for a successful TAM Plan is likely to be more detailed than the data that will eventually be collected through the NTD.

Nevertheless, FTA recognizes that meeting the requirements for a TAM Plan may be challenging for many of our recipients. For example, out of 36 medium-sized rail and bus

operators contacted by FTA for the [2010 National State of Good Repair Assessment](#),³¹ FTA found that none of the sampled transit agencies possessed fully-developed capital asset planning inventories. Additionally, out of seven large rail systems contacted by FTA for the [2009 Rail Modernization Study Report to Congress](#),³² only four had complete information on asset age or condition and remaining useful life; only two had replacement cost data for individual assets included in the inventory; and only one had comprehensive data on past asset rehabilitation activities.

FTA seeks public comment on the following questions:

75. Some current recipients or subrecipients may currently have Federally-funded assets with a Federal interest remaining in the asset, but these recipients may not be seeking FTA funding in the future. Should these recipients be required to develop TAM Plans?

76. What other elements of a good TAM Plan should FTA consider as either requirements or as a suggested best-practice (e.g. a risk analysis, or a consideration of life-cycle costs)?

77. How should the requirements for a TAM Plan apply to transit systems that operate using a full-service contractor, where the contractor both provides the assets and operates the assets?

What requirements for state of good repair and a TAM Plan should FTA require to be included in such full-service contracts, if any?

78. How should the TAM Plan apply to assets that are owned and operated by an entity other than the recipient, but upon which the recipient's operations relies?

79. How should the requirements for a TAM Plan apply to grant recipients who purchase an asset with Federal funds, and then lease that asset to a third party who operates the asset? Should

³¹ Available at [http://www.fta.dot.gov/documents/National_SGR_Study_072010\(2\).pdf](http://www.fta.dot.gov/documents/National_SGR_Study_072010(2).pdf).

³² Available at http://www.fta.dot.gov/documents/Rail_Mod_Final_Report_4-27-09.pdf.

the requirement for a TAM Plan apply to the party that is leasing the asset? Or should the requirement for a TAM Plan only apply to the grant recipient that is the lessor of the asset?

80. What level of detail should be required for the capital asset inventory in a TAM Plan? What type of categorization of assets should be required? Please be as specific as possible as to what requirements FTA should propose to ensure that capital asset inventories included in the TAM Plan support an effective transit asset management process.

81. What parameters should be required for the condition assessments included in the TAM Plan? Should these parameters be based on FTA's definition of state of good repair and the SGR performance measure?

82. Should FTA construct one or more TAM Plan templates for recipients to use? If so, should these templates be based upon asset type, recipient size, and/or some other factor? Should FTA develop professional certification or training courses related to TAM Plan development?

(2) Investment Prioritization

As noted above, each TAM Plan must include investment prioritization. 49 U.S.C. 5326(a)(2)(A). All projects identified in the TAM Plan should reflect priorities for funding from all available sources, including FTA program funds, State and local funds, and funds transferred from the Federal Highway Administration. Specifically, the new section 5337 State of Good Repair Formula Program requires that all projects funded through this program must be identified in the TAM Plan.

Investment prioritization and project identification in the TAM Plans will connect funding decisions to projects that address SGR needs. In this fiscally-constrained environment, it is unlikely that sufficient increases in new funding from all sources will materialize to directly

address all transit SGR needs. Investment prioritization in the TAM Plan will be the manifestation of each organization's strategic process to balance the competing needs for operations, maintenance, reinvestment, and system expansion in a resource-constrained environment, all while addressing or controlling safety hazards.

In FTA's Online Dialogue, a recurrent theme from commenters was the difficulty of balancing these competing needs. FTA recognizes that there are no easy answers to this dilemma. Thus, it is critical that the investment prioritization be done strategically, with an organization-wide approach, informed by up-to-date and reliable data. As such, investment prioritization must guide the setting of the SGR performance targets and safety performance targets for the organization.

These SGR priorities must "be coordinated to the maximum extent practicable" with the transit state of good repair performance targets being set by the States and Metropolitan Planning Organizations. 49 U.S.C. 5303(h)(2)(B)(i)(II). Identification of SGR projects in the investment prioritization of the TAM Plan is the first step towards including these projects in the transportation improvement program (TIP) and the statewide transportation improvement program (STIP). By extension, inclusion in the TIP and the STIP is essential for meeting the goals of the National TAM System to leverage both new and existing sources of funding towards reducing the SGR backlog throughout the industry.

FTA seeks public comment on the following questions:

83. How specific should the investment prioritization section be in the TAM Plan? Should it include specific projects, or just groups of assets to be addressed? How should this requirement align with the requirement that all projects funded by the SGR Formula Program (section 5337) be identified in the TAM Plan?

84. What time period should the investment prioritization in the TAM Plan cover?
85. What processes or procedures should FTA recommend or require for balancing competing priorities for operations, maintenance, and expansion projects with rehabilitation and replacement projects in development of TAM Plans? How should these trade-offs be reflected in final, certified TAM Plans?
86. What processes or procedures should FTA recommend or require to ensure that the investment prioritization reflects an organization-wide perspective towards establishing priorities?
87. What processes or procedures should FTA recommend or require to ensure that the investment prioritization identified in the TAM Plan match the actual investment decisions that are made?
88. At what level of detail should transit system safety be linked to or included as part of a transit system's TAM Plan? In particular, what procedures or requirements should FTA establish for incorporating safety into the asset inventory, condition assessment, and/or investment prioritization components of a TAM Plan?
89. Do transit agencies currently use any type of risk-based process to make investment decisions? If so, please describe that process.
90. How might a risk-based process change going forward to systematically ensure that each agency's greatest safety vulnerabilities are addressed first?

D. Performance Measures

Under 49 U.S.C. 5326(c)(1), FTA is required to establish SGR performance measures, based on the definition of state of good repair. Three months after a final rule is issued to

establish SGR performance measures each FTA grant recipient is required to establish annual SGR performance targets in relation to those measures. Further, each year, FTA grant recipients are required to report to FTA on progress towards meeting those SGR targets, and to report the targets established for the subsequent fiscal year. Please note that only recipients, not subrecipients, will be required to set SGR performance targets. FTA also intends to select SGR performance measures that will minimize the administrative burden on small grant recipients.

The SGR performance measures are an essential component of the National TAM System. Each FTA grant recipient will be accountable for setting annual SGR performance targets relative to the measures. There are neither rewards for meeting a performance target, nor consequences for missing a performance target. Nevertheless, the process of setting targets and measuring progress is not just a paper exercise, but reflects the increased expectations by everyone involved with the transit system, including the riding public, for bringing system assets into a state of good repair.

As a practical matter, several strong candidates for a SGR performance measures make reference to the SGR backlog for an individual transit system, particularly if the age-based, condition-based, or comprehensive approaches are used. The SGR backlog is a measurement of the total size or amount of assets owned or leased by a transit system that are not in a state of good repair. Under these approaches, FTA envisions adopting performance measures that provide a direct measure of each transit agency's SGR backlog. This sort of direct performance measure, based on the size of the SGR backlog, will allow individual transit systems to either show periodic progress towards achieving a state of good repair or to identify the resource investment necessary over a period of time for achieving a state of good repair. An SGR performance measure based on the SGR backlog would also be consistent with FTA's goal of

working with the transit industry towards reducing the National SGR backlog, which FTA currently estimates to exceed \$78 billion, and which continues to grow. Alternatively, under the performance-based approach to defining state of good repair, FTA envisions adopting performance measures that provide an indirect measure of each transit agency's SGR backlog. These indirect measures could include in-service vehicle failures, maintenance break-downs, and track slow-zones.

The process of setting SGR performance targets will require each recipient to think quantitatively about the size of its own SGR backlog problem, and to analyze what resources it can leverage to address their SGR needs. The setting of SGR performance targets will also be an entirely local decision. Although FTA will strongly encourage recipients, States, and MPO's to set meaningful SGR targets, based on a creative and strategic leveraging of all available financial resources, FTA will not have a role in setting or approving SGR performance targets.

(1) Defining Performance Measures

FTA believes that the SGR performance measures should be transparent, readily understandable by the public, and sustainable over the long-term as possible. As such, FTA envisions that the SGR performance measures will be quantitative, and that the measures will not be constructed in reference to an arbitrary baseline. Rather, the measures will identify a quantitative value, and each transit agencies' SGR targets will represent goals for that measurement after a specific time period. For example:

- The estimated replacement value of all assets in the SGR backlog for the transit system, e.g. the value of all assets in our SGR backlog will be less than \$100 million by the end of 2015.

- The percent of total assets, weighted by replacement value, in the SGR backlog for the transit system, e.g. fewer than 15% of our assets, weighted by replacement value, will be in our SGR backlog by the end of 2015.
- The average condition of all assets, weighted by replacement value, for the transit system as a whole, e.g. the average condition of all of our assets, weighted by replacement value, will be at least 3.14 (on a scale of 1 to 5, with 1 being poor and 5 being excellent) by the end of 2015.

FTA seeks comment on the following questions:

91. What are some other possible SGR performances measures that would have significant practical utility? Please be as specific as possible, using the format for the examples, above.

92. Should FTA consider a purely performance-based approach, i.e. rather than establishing direct SGR measures, instead establishing indirect SGR measures of in-service failures, maintenance break-downs, and track slow zones?

93. Should FTA propose different measures for smaller agencies? How should FTA develop different measures for different sized entities?

(2) Performance Targets

Pursuant to 49 U.S.C. 5326(c)(2), FTA grant recipients will be required to establish SGR performance targets in relation to the SGR performance measures within three months after FTA establishes the performance measures. Additionally, recipients of FTA funding will be required to submit an annual report describing the progress of the recipient toward meeting the recipient's SGR performance targets for the subsequent year. FTA seeks comment on how the SGR performance targets for each recipient should be reported to FTA, and how progress should be

reported annually to FTA. FTA is considering requiring the SGR targets for each SGR performance measure be reported to the NTD since most FTA recipients already file an annual report to the NTD. These SGR targets could alternatively be reported to FTA through the Transit Electronic Awards Management (TEAM) System, although these SGR targets would need to be filed on a system-wide basis, and not on a grant-by-grant basis. It is also possible that stand-alone performance reports to meet the statutory requirements could be considered, if that approach is determined to be less burdensome.

FTA seeks comments and suggestions on the following questions:

94. Should FTA collect the SGR performance targets through its National Transit Database? Or should SGR targets be collected through some other system?
95. Should SGR targets be set on a system-wide basis? Or should SGR targets be set on a per-mode basis, per asset class, or both? Or on some other basis?
96. Should the SGR performance measures and performance results be based on data reported through the NTD? Should the SGR performance measures and performance results be based on data reported separately?
97. What should be the time horizon for the SGR performance targets? Although the SGR targets must be set annually, as required by law, should separate short-range (one year) and long-range (greater than one year) targets be established?
98. How should the SGR performance measures and performance results be connected to the requirement for applicants to the Pilot Program for Expedited Project Delivery? Section 20008(b) of MAP-21. How should applicants certify to FTA that their existing transit system “is in a state of good repair” in order to be eligible for the Pilot Program?

E. Technical Assistance and Tools

As noted above, many of the TAM requirements outlined in MAP-21 apply to all FTA recipients who operate transit services. Because these are new requirements and affect a variety of transit providers, FTA is dedicated to providing guidance to recipients to assist in complying with these requirements. MAP-21 requires FTA to provide technical assistance on these provisions as well as develop an analytical process or decision support tool for estimating capital investment needs of transit systems over time and assisting with asset investment prioritization by transit systems. 49 U.S.C. 5326(b)(4).

Currently, there are a number of [documents and resources](#)³³ that have been developed that may assist recipients in meeting the requirements of the National TAM System. These include:

- Asset Management Methodology/Condition Assessment Methodology Research, FTA-2011-002-TRI
- Asset Management Guide: Focusing on the Management of our Transit Investment
- TCRP Report 157: State of Good Repair: Prioritizing the Rehabilitation and Replacement of Existing Capital Assets and Evaluation the Implications for Transit
- TCRP Synthesis 92: Transit Asset Condition Reporting

FTA has also already developed its [TERM-Lite](#)³⁴ model as a possible tool for individual transit systems to estimate their own capital investment needs. There may be a need for other decision support tools to be developed to support TAM efforts. For example, there may be a need for a tool to help estimate the risks of reduced safety, increased maintenance costs, less

³³ All of these reports and decision support tools can be found on FTA's website at <http://www.fta.dot.gov/sgr>.

³⁴ TERM-Lite can be accessed at <http://www.fta.dot.gov/term-lite>.

reliability, and decreased performance that may result from deferring investments on particular assets.

FTA seeks comments and suggestions on the following questions:

99. What specific tools and resources should FTA develop to ease the implementation of these requirements? Please be specific as to what tools or resources would be most useful to you and your transit system, such as guidebooks, classroom training, webinars or online training, peer-to-peer exchanges, etc.

100. A number of private companies offer software tools for compiling and maintaining an asset inventory. Are there gaps in what is currently offered for these purposes that FTA should consider filling?

101. A number of private companies already offer software tools to assist transit systems with taking an organizational approach to investment prioritization. Are there specific gaps in what is currently available for these purposes that FTA should consider filling?

102. FTA has currently developed TERM-Lite to assist transit systems with estimating capital investment needs over time. Are there additional tools that FTA should develop to assist transit systems with estimating capital investment needs?

103. Are the various guidebooks and reports listed above useful to your transit system in preparing to conduct transit asset management planning? Are there other guidebooks or reports that FTA should develop to support planning for transit asset management?

104. Are there any other support tools or resources not mentioned here that would be helpful for recipients to have access to?

105. What decision support tools for investment prioritization and/or analytic processes for capital investment needs estimation does your transit agency already use?

106. What research should FTA be conducting or sponsoring to support improved TAM analysis?

VIII. Certification of Transit Agency Safety Plans and Transit Asset Management Plans

Both the Transit Agency Safety Plan and the TAM Plan have a self-certification requirement. See 49 U.S.C. 5329(d)(1) and 49 U.S.C. 5326(a)(2)(B). These certifications will serve two fundamental purposes. First, certification provides assurance to FTA that recipients have conscientiously sought to meet the requirements for the Transit Agency Safety Plan and the TAM Plan established by FTA, and that the resulting plans are supporting the goals for safety and transit asset management, respectively. Second, a recipient that engages in a rigorous review of their Transit Agency Safety Plan and TAM Plan before certifying it to FTA will have confidence that their plans meet the standards established by FTA.

FTA recognizes that applicants to FTA's grant programs are currently required to certify and assure compliance with many other FTA program elements. Although MAP-21 does not establish the process for how FTA will oversee certification of Transit Agency Safety Plans and TAM Plans, FTA will strongly consider using the existing certification process with oversight through the Triennial and State Management Reviews. However, FTA is also considering developing a new program for review of Transit Agency Safety Plans and TAM Plan certifications. Despite the method of oversight, recipients must ensure that FTA has access to each of these plans upon request and should be able to confirm that the certification requirements have been met.

FTA seeks public comment on the following questions:

107. Should certification be done through the annual Certification and Assurance process and a requirement to receive a grant? How should subrecipients certify? Is there another process to consider?

108. Should FTA establish a self-assessment or other set of procedures for recipients to follow before certifying their Transit Agency Safety Plan and TAM Plan?

109. After recipients have certified they have plans that comply with FTA requirements, should FTA review the plans prior to grant approval, as part of the Triennial/State Management Review, or at some other time?

110. FTA is considering reviewing certification of Transit Agency Safety Plans and TAM Plans on the basis of a weighted random sample of recipients as an alternative to reviewing all plans. Would this be a suitable alternative to reviewing all certifications?

111. What requirements and procedures should FTA establish for States and urbanized area designated recipients to review the TAM Plans of their subrecipients before certification?

112. What requirements and procedures should FTA establish for States that develop and certify Transit Agency Safety Plans for rural providers and small urban providers?

113. How frequently should TAM Plans be updated? How frequently should FTA review a recipient's updated TAM Plan? How should the certification be updated when the TAM Plan is updated?

114. For all grant recipients, should FTA require the certification of the TAM Plan to be signed by the Chief Executive Officer of transit operations, and/or the Chief Executive Officer of the legal entity receiving grants from FTA?

115. For grant recipients with a board of directors, should FTA require the TAM Plan be approved by the Board before certification?

IX. Coordination of Targets and Plans with Metropolitan, Statewide and Non-Metropolitan Planning

The Metropolitan Transportation Planning requirements at 49 U.S.C. 5303 and the Statewide and Nonmetropolitan Planning requirements at 49 U.S.C. 5304, oblige Metropolitan Planning Organizations (MPOs) and States, respectively, to coordinate their performance targets, to the maximum extent practicable, with performance targets set by FTA recipients for safety and state of good repair, and to integrate these targets into the planning process. See 49 U.S.C. 5326 and 49 U.S.C. 5329(d)(1)(E). At the MPO and State level, funding allocation for surface transportation investments must weigh the needs for transit safety and SGR side-by-side with the highway performance objectives and targets, as well as with goals for the expansion of the existing transit network. FTA plans to issue a joint NPRM with the Federal Highway Administration on this new performance management framework.

As a reminder of Federal planning requirements, MPOs are established in urbanized areas of 50,000 or more population, and must prepare a long range plan of at least 20 years in duration (updated every 4-5 years). 49 U.S.C. 5303(i)(2)(A)(ii). This plan is financially constrained to revenue sources that are “reasonably expected to be made available” over that period. 49 U.S.C. 5303(i)(2)(E)(i)(II). Any projects anticipated to receive federal funds or that are subject to federal actions must be included in the long range plan. In addition, the MPOs are required to develop a metropolitan “transportation improvement program,” (TIP) which includes projects consistent with the long range plan that are expected to be implemented in the first four years of the plan. 49 U.S.C. 5303(j). The TIP, too, is financially constrained, in that any project included in it must demonstrate that it is fully funded.

As a result of MAP-21, MPOs and States are now required to establish performance targets that address forthcoming U.S. Department of Transportation-issued national performance measures that are based on the goals outlined in the legislation: safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, reduced project delivery delays, transit safety, and transit state of good repair. MPOs also must coordinate their performance targets, to the maximum extent practicable, with performance targets set by FTA recipients under the new performance measure requirements for safety and state of good repair. TIPs must include a description of the anticipated progress toward achieving the performance targets resulting from implementation of the TIP. The investment prioritization developed for the TAM Plan at the individual system level must also be coordinated with development of the long-range transportation plan and the TIP.

Additionally, States are required by 49 U.S.C. 5304(h)(2)(C) to integrate transit safety and transit state of good repair performance targets into the planning process, and are required by section 5304(d)(2)(B)(ii), for areas not represented by a MPO, to select performance targets that are “coordinated, to the maximum extent practicable, with providers of public transportation” to ensure consistency with the state of good repair elements of section 5326(c) and the safety program found in sections 5329(b)(2) and 5329(d)(1)(E). Likewise, the investment prioritization developed for the TAM Plan at the individual system level must also be coordinated with development of the statewide transportation plan and the statewide transportation improvement program (STIP).

In FTA’s TAM Online Dialogue, one commenter noted that areas with multiple transit systems under the same MPO face particular challenges in coordinating efforts in the planning process. This commenter suggested that it is important that “coordination to the maximum

extent practicable” should also extend in both directions, with individual transit systems coordinating their own and SGR performance targets with the regional and SGR performance targets being established by the MPO. FTA raises this comment in order to get additional comments on the merits of this suggestion, and how such a requirement might be implemented.

FTA seeks comment on the following questions:

116. What procedures or requirements should FTA establish to ensure that Transit Agency Safety Plan and TAM Plan goals, measures, and targets from individual transit systems are integrated into the metropolitan transportation planning process?

117. Should MPO’s be required to set a region-wide target for transit state of good repair, or should MPO’s be required to incorporate the both safety and transit state of good repair targets from each transit system within their jurisdiction into the performance-based planning process, or should have MPO’s have discretion to choose between these two approaches?

118. What procedures or requirements should FTA establish to ensure that Transit Agency Safety Plan and TAM Plan goals, measures, and targets from individual transit systems are integrated into the statewide and nonmetropolitan transportation planning process? Since States are already setting the transit SGR performance targets for rural area grants received by the State, are any additional steps needed for integration into the planning process?

119. Should FTA establish procedures or requirements to ensure that Transit Agency Safety Plan and TAM Plan goals, measures, and targets from individual transit systems are integrated into other metropolitan planning products, such as the Unified Planning Work Program (“UPWP”) and Congestion Management Process (“CMP”)?

120. FTA is interested in hearing recipient and stakeholder perspectives on how the investment priorities set forth in can be most-effectively reflected in the prioritization of projects, strategies,

and resources – including Federal, state, and local funds – in MPO Plans and Transportation Improvement Programs, as well as the Long-Range Transportation Plans of States and Statewide Transportation Improvement Programs. Specifically, how should transit state of good repair needs identified in be addressed alongside other investment goals in these financially-constrained plans?

121. How should safety targets be considered in the planning process by State's and MPOs? Should MPO's be required to set a region-wide safety target? Or, should MPO's be required to incorporate each of the safety targets from each transit system within their jurisdiction into the performance-based planning process? Or, should MPO's have discretion to choose between these two approaches? How would each approach make the planning process easier or more difficult for transit agencies?

X. Estimating the Benefits and Costs of Requirements

Executive Orders 12866 and 13563 direct agencies to propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs, tailor a regulation to impose the least burden on society consistent with obtaining the regulatory objectives, and in choosing among alternative regulatory approaches, select those approaches that maximize net benefits.

Consistent with the requirements in these executive orders, FTA seeks comment on the following questions:

122. FTA seeks information from the public in order to assist it in assessing the cost of alternative regulatory approaches for implementing the National Safety Program and the National TAM System. For example, for commenters who suggest that FTA consider adopting

certain safety performance criteria, minimum safety standards for vehicles, or objective standards for measuring the condition of capital assets, or training standards, what information do you have to assist FTA in assessing the incremental cost of adopting your suggestion? FTA is interested in information to assist it in assessing the full cost of the suggestion, such as the cost for transit agencies to collect and assess information and the cost to take action based on the information.

123. Likewise, FTA seeks information from the public to assist FTA in assessing the potential benefits of alternative regulatory approaches for implementing the National Safety Program and the National TAM System. For example, for commenters who suggest that FTA consider adopting certain safety performance criteria, minimum safety standards for vehicles, objective standards for measuring the condition of capital assets, or training standards, what information do you have to assist FTA in assessing the incremental benefit from adopting your suggestion?

XI. Next Steps and Public Participation

This ANPRM seeks input from the public on these topics to ensure that the final rules are clear and effective. It is important that transit agencies, State agencies, SSO agencies, MPOs, other organizations, as well as interested members of the public that could potentially be affected by rules issued after this ANPRM, take this opportunity to share thoughts, concerns, ideas, and general comments on the topics presented herein.

After FTA reviews the comments collected through this ANPRM, FTA will draft several Notices of Proposed Rulemakings (NPRM) for the National Safety Program and the TAM Program. These NPRMs will set forth proposed regulations based on FTA's analysis of the statutory requirements and relevant issues, as well as comments received from the public. Once

FTA publishes the proposed rules, stakeholders and the public will have another opportunity to provide comments that FTA will take into consideration prior to issuing final rules.

Peter Rogoff,

Administrator.

[FR Doc. 2013-23921 Filed 10/02/2013 at 8:45 am; Publication Date: 10/03/2013]