

# **STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**



## **STATE SAFETY OVERSIGHT PROGRAM FOR RAIL FIXED GUIDEWAY SYSTEMS**

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December 2009

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## **A. INTRODUCTION AND OVERVIEW**

### **A.1 PURPOSE**

This document describes the state of North Carolina's program for addressing regulations promulgated by the Federal Transit Administration (FTA). These regulations establish minimum requirements for safety and security programs for Rail Fixed Guideway Systems (RFGS) currently within the state's jurisdiction. The purpose of this document is to provide standards, procedures, and technical direction to the RFGS in order to implement the program specified by the state.

### **A.2 AUTHORITY**

The State of North Carolina has designated the North Carolina Department of Transportation (NCDOT) as the State Oversight Agency by North Carolina Statute G.S. 136-18, which conforms to the requirements established pursuant to section 5330 of the "Intermodal Surface Transportation Efficiency Act of 1991." This document establishes the system safety and security requirements for NCDOT to implement the provisions of the State System Oversight (SSO) Program.

FTA's authority to require this program derives from its authority to condition the receipt of FTA grant funds on compliance with FTA guidance (49 U.S.C. § 4324(c)). The Intermodal Surface Transportation Efficiency Act (ISTEA), recently reauthorized by the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFTEA-LU), directed FTA to issue regulations requiring states to oversee the safety and security of rail transit agencies (49 USC § 5330). FTA promulgated its regulations through the adoption of a rule in 1995, entitled "Rail Fixed Guideway Systems; State Safety Oversight" (49 CFR Part 659). FTA recently revised 49 CFR Part 659, publishing its new final rule on April 29, 2005, hereinafter referred to as "the rule" or Part 659.

This document combines NCDOT's program standard and procedures and comprises North Carolina's Initial Submission to FTA. Once approved, this Safety Oversight Program for RFGS has the force of regulation, and incorporates, by reference, 49 CFR Part 659 Rail Fixed Guideway Systems: State Safety Oversight, APTA Guidelines, and FTA Office of Safety and Security "Implementation Guidelines."

### **A.3 NCDOT STATE SAFETY OVERSIGHT PROGRAM**

The NCDOT SSO Program is managed by George E. Young. Table 1 provides contact information.

**Table 1. NCDOT SSO Program Contact Information**

<b>Oversight Agency:</b>	North Carolina Department of Transportation (NCDOT)
<b>Program Manager:</b>	Mr. George E. Young Railroad and Rail Transit Safety Oversight Program Manager North Carolina Department of Transportation, Rail Division 1553 Mail Service Center Raleigh, NC 27699-1553 Phone: 919-715-8742 Fax: 919-733-0997 Cell: 919-218-9310 gyoung@ncdot.gov

<b>Rail Fixed Guideway System:</b>	<p>Mr. Bryan Leaird Charlotte Area Transit System (CATS) 3145 South Tryon Street Charlotte, NC 28217 Phone: 704-432-3664</p> <p>Mr. David King Triangle Transit Authority (TTA) PO Box 13787 Research Triangle Park, NC 27709 Phone: 919-485-7424</p> <p>Mr. Brent McKinney Piedmont Authority for Regional Transportation (PART) Piedmont Triad International Airport 6415 Bryan Boulevard, Suite 18 Greensboro, NC 27409 Phone: 336-883-7278</p>
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NCDOT is authorized to arrange a meeting with the RFGS in the event that agency-wide attention should be focused on a specific RFGS safety or security issue. NCDOT retains the authority to use contractors as required to support the performance of safety and security oversight activities.

### **A.3.1 Safety Oversight Agency Role**

The NCDOT:

- Formulates draft documents that set forth standards and procedures, complying with 49 CFR Part 659, using the FTA Office of Safety and Security “Compliance and Implementation Guidelines,” the APTA Guidelines, and other appropriate documents.
- Determines a priority (urgent, immediate, or routine) for an implementation schedule and assigns tracking numbers to all documents.
- Distributes preliminary State Safety Program Standard within the NCDOT for internal review. The documents are revised and updated as appropriate. Following any revisions and updates, the NCDOT forwards the documents to transit agencies (RFGS) operating in North Carolina and other interested Federal and State agencies with safety oversight programs. The NCDOT notifies all participating reviewers that questions/comments received within 30 days will be considered.
- As necessary, updates or revises the State Safety Program Standard and forwards the Final Draft to all participants. The agency notifies all participating reviewers that questions and comments received within 30 days will be considered.
- Following a review, revises and updates the State Safety Program Standard (SSPS), and forwards changes to the final draft to all participating reviewers. Upon completion of the review process, the NCDOT issues the final documents to the RFGS with instructions for implementation. The RFGS is required to formally acknowledge receipt of the System Safety Program Standard (Program Documents) by letter. Following receipt and within 30 days, the RFGS must submit its System Safety Program Plan (SSPP) update for review and approval.

- Using the conformance checklist (part of the Program Documents) for the review of the SSPP, the NCDOT determines if the SSPP meets the Federal and State Program requirements. Within 30 days, the NCDOT takes action on the RFGS SSPP and provides a record copy of the conformance checklist.
- Should the NCDOT determine a SSPP does not meet the State Safety Program Standard, the NCDOT notifies the transit agency of those elements requiring update or modification using the conformance checklist. The NCDOT or RFGS may request a meeting to review and discuss SSPP deficiencies and corrective actions to enable compliance with Program requirements.

The Transit Executive Director of the RFGS is responsible for:

- Complying with the mandate of the SSPS and ensuring compliance within the RFGS [659.27 (g) Chief Executive Compliance Certification]
- Establishing and maintaining an SSPP that complies with 49 CFR 659 and this Standard [659.17]
- New construction work, or modifications to the system, officially informing NCDOT in a timely manner on all witness, inspections, sampling inspections, and certification points, and provide such access as is necessary to meet this requirement [659.19 (h)]
- Establishing and maintaining a Security and Emergency Preparedness Plan (SEPP) that complies with 49 CFR 659 and this Standard [659.21]
- Ensuring that an Annual Review of the SSPP/SEPP is conducted, and submitting any changes to NCDOT for approval [659.25]
- Ensuring that a suitable Internal Safety and Security Review Process is developed and implemented [659.27]
- Ensuring that NCDOT is notified no later than December 31<sup>st</sup> of the Annual Schedule of Internal Safety and Security Reviews for the coming year [659.27 (c)]
- Ensuring that checklists used for the Internal Safety and Security Review Process are submitted to NCDOT for approval [659.27 (d), (e)]
- Submitting an Annual Report documenting Internal Safety and Security Review activities and the status of findings and corrections actions [659.27 (f)]
- Along with the Internal Safety and Security Review Annual Report, submitting a formal Letter of Certification indicating that the RFGS is in compliance with its SSPP and SEPP [659.27 (g)]
- Ensuring that a Hazard Management Process approved by NCDOT is developed and implemented, and that NCDOT is notified in the event of a Hazardous Condition [659.31]
- Ensuring that NCDOT is notified in the event of a Reportable Incident [659.33]
- Ensuring that Incident Investigations are conducted using a procedure authorized by NCDOT [659.35 (c)]
- Complying with NCDOT Corrective Actions Plan (CAP) Program, and ensuring that CAPS are submitted for approval by NCDOT. [659.37]

The Manager of the System Safety Oversight Agency is responsible for:

- Ensuring that the SSPS is established, reviewed biennially and updated as necessary in an ongoing manner
- Ensuring that Office resources are available to support the Program
- Approving the SSPS
- Approving the RFGS SSPP, and issuing of a formal Letter of Approval [659.17 (c)]
- Approving the RFGS SEPP, and issuing a formal Letter of Approval [659.21 (c)]
- Submitting the NCDOT Standard changes and Annual Report to the FTA [659.15 (a)]
- Directing the RFGS to develop and implement an SSPP that complies with this Standard and 49 CFR 659 [659.17(a)]
- Directing the RFGS to develop and implement an SEPP that complies with this Standard and 49 CFR 659 [659.21(a)]
- Directing the RFGS to conduct annual review of its SSPP and SEPP [659.25 (a)]
- Directing the RFGS to conduct an Internal Safety and Security Review Program [659.27 (a)]
- Directing the RFGS to submit an Annual Report summarizing and documenting the results of the Internal Safety and Security Review Program [659.27 (f)]
- Formally approving the RFGS Internal Safety and Security Review Process annually [659.27(i)]
- Reviewing triennially, the RFGS's implementation of its SSPP and SEPP and submitting a Triennial Review to the FTA [659.29]
- Directing the RFGS to develop and implement a Hazard Management Process in accordance with this Standard and 49 CFR 659 [659.31(a)]
- Directing the RFGS to develop and implement an Incident Notification Process in accordance with this Standard and 49 CFR 659 [659.33 (a), (b), (c)]
- Formally adopting any incident investigation conducted by the RFGS or any third party on NCDOT's behalf [659.35 (e)]
- Approving CAPs proposed by the RFGS [659.37 (c)]
- Submitting any changes in the NCDOT Standard to the FTA, [659.39]
- Submitting the Annual Oversight Activities Report and the Certification of Compliance to the FTA, no later than March 15 of each year [659.39 (c)]

- Prohibiting a party or entity from providing services to both the oversight agency and the rail transit agency where a conflict of interest exists [659.41]
- Annually certifying to the FTA, NCDOT compliance with Rule 49 CFR 659 [659.43]
- Managing the SSPS
- Establishing, developing, publishing, maintaining the SSPS and Procedures [659.13, 659.15 (a), (b)]
- Reviewing biennially, the SSPS, revising it as required, and submitting it for approval [659.15 (a)]
- Reviewing annually the RFGS SSPP, and recommending it for approval [659.17 (b)]
- Specifying the requirements of the RFGS SSPP [659.19]
- Reviewing annually the RFGS SEPP, and recommending it for approval [659.21(c)]
- Specifying the requirements of the RFGS SEPP [659.23]
- Reviewing and recommending approval of any changes to the RFGS SSPP and SEPP [659.25 (b)]
- Reviewing annually the findings and recommendations of the RFGS Internal Safety and Security Review Process and recommending for approval [659.27(i)]
- Reviewing at least triennially, the RFGS's implementation of its SSPP and SEPP and submitting a Triennial Review for approval [659.29]
- Reviewing and recommending for approval the SEPP Hazard Management Process [659.31(b)]
- Specifying how the RFGS will notify NCDOT in the event of a Reportable Hazardous Condition [659.31 (5)]
- Specifying how the RFGS will notify NCDOT on the resolution status of a Reportable Hazardous Condition [659.31 (6)]
- Specifying how the RFGS will investigate Reportable Incidents that occur as a result of RFGS activity [659.35 (a)]
- Establishing and implementing the SSPS Incident Investigation Procedure [659.35 (b)]
- Specifying the Incident Notification Process to be established by the RFGS [659.35 (b)]
- Requiring that the RFGS provides NCDOT status on investigations as requested [659.35 (f)]
- Establishing and implementing the SSPS CAP Procedure [659.37]

- Requiring that the RFGS develop CAPs in accordance with this Standard and 49 CFR 659 [659.37 (a), (b), (d), (e)]
- Reviewing and recommending for approval any CAPs proposed by the RFGS [659.37 (c)]
- Tracking the implementation of each approved CAP. [659.37 (g)]

The General Manager of Safety and Security, RFGS is responsible for:

- Developing and implementing the SEPP in accordance with this Standard and 49 CFR 659 [659.21 (a), 659.23]
- Conducting an annual review of the SEPP and submitting any changes to NCDOT for approval [659.25]
- Developing and implementing the SSPP in accordance with the SSPS and 49 CFR 659 [659.17 (a)]
- Facilitating an annual review of the SSPP and submitting any changes to NCDOT for approval [659.25]
- Managing the Annual Internal Safety and Security Review process [659.27]
- Managing the RFGS Hazard Management Process [659.31]
- Notifying, in accordance with this Standard 49 CFR 659, and RFGS Hazard Management Program, NCDOT in the event of a Reportable Hazardous Condition [659.31]
- Notifying, in accordance with this Standard and 49 CFR 659, NCDOT in the event of a Reportable Incident [659.33]
- Assisting line management in conducting Incident Investigations [659.35 (c)]
- Ensuring Incident Investigations are conducted in association with line management consultants and other staff
- Overseeing the RFGS CAP Program. [659.37]
- Ensuring and formally documenting that all Safety-related CAPs submitted to NCDOT have been reviewed by appropriate RFGS Safety, Operating, and/or Engineering personnel
- Verifying to the NCDOT Program Manager through formal written notification when an approved Safety-related CAP has been completed.

#### **A.4 NCDOT TRIENNIAL SAFETY REVIEW**

The NCDOT is required to conduct a comprehensive on-site safety review of each RFGS once every three years to evaluate the effectiveness of the RFGS's implementation of its SSPP. The NCDOT prepares and submits a draft report to the RFGS after each triennial review. Following reviews, the NCDOT conducts working sessions with the RFGS to discuss the areas of concern

or items found non-compliant with the SSPP. Upon completion of the reviews, NCDOT prepares a final report, including resolution of non-compliant items, and where applicable, identifies open action items.

## **A.5 AFFECTED RAIL FIXED GUIDEWAY SYSTEM(S)**

RFGSs affected by this program include any light, heavy, or rapid rail system; monorail; inclined plane; funicular; trolley; or automated guideway operating within the state's jurisdiction that:

- Is not regulated by the Federal Railroad Administration (FRA); and
- Is included in FTA's calculation of fixed guideway route miles or receives funding under FTA's formula program for urbanized areas (49 U.S.C. 5336); or
- Has submitted documentation to FTA indicating its intent to be included in FTA's calculation of fixed guideway route miles to receive funding under FTA's formula program for urbanized areas (49 U.S.C. 5336).

Affected RFGSs shall supply, and update as necessary, the information for their safety and security programs to NCDOT.

## **A.6 CONFLICT OF INTEREST**

No individual or entity may provide services to both NCDOT and an RFGS when there is a conflict of interest or an appearance of a conflict. A conflict of interest occurs when an individual or entity performing work for an RFGS or the NCDOT is unable, or potentially unable, to render impartial assistance or advice on the development or implementation of the standards and provisions of this SSO manual, or to objectively perform such work without bias. A third party contractor to the NCDOT or an RFGS may not have an unfair competitive advantage over other contractors. Each contractor is subject to full disclosure on all present and potential conflicts of interest in its activities or relationships prior to being awarded a contract with NCDOT or an RFGS.

## **A.7 REVISIONS AND UPDATES**

The NCDOT periodically reviews the State Safety Program Standard. As necessary, the NCDOT formulates proposed changes to standards and procedures, using FTA's Compliance and Implementation Guidelines, Technical Advisories, the APTA Guidelines, and other appropriate documents. After determining the priority (urgent, immediate, or routine), the NCDOT develops an implementation schedule and assigns tracking numbers to all documents. The NCDOT distributes preliminary changes to the State Safety Program Standard within the NCDOT for internal review. As necessary, the NCDOT revises and updates the documents and sends copies of the revisions to transit agencies operating in North Carolina (note: it is the transit agency's responsibility to pass these requirements to a contractor, if service is operated under contract) and other interested Federal and State agencies with safety oversight programs. The agency notifies all participating reviewers that questions and comments received within 30 days will be considered.

Following the receipt of comments, the NCDOT, as appropriate, revises and updates the State Safety Program Standard, and forwards a final draft to all participants.

## A.8 DEFINITIONS AND ACRONYMS

Definitions used in this document include the following:

### Accident, Injury and Property Damage

- a) **Accident** – any safety or security incident involving a rail transit vehicle or taking place on rail transit-controlled property where one or more of the following occurs:
1. A fatality at the scene; or where an individual is confirmed dead within 30 calendar days of a transit-related incident
  2. Injuries requiring immediate medical attention away from the scene for two or more individuals
  3. Property damage to rail transit vehicles, non-rail transit vehicles, or other rail transit property or facilities and non-transit property that equals or exceeds \$25,000
  4. The evacuation of fixed guideway systems during passenger-carrying operations
  5. An evacuation due to life safety reasons
  6. An incident involving the release of hazardous materials
  7. A collision at a grade crossing
  8. A main line derailment
  9. A collision with an individual on a rail right-of-way
  10. A collision between a rail transit vehicle and a second rail transit vehicle, or a rail transit non-revenue vehicle
  11. For RFGSs that share track with the general railroad system and are subject to the FRA's notification requirements, any incident for which the RFGS must also notify the FRA.
- b) **Hazard** – Any real or potential condition that can cause injury or death, or damage to or loss of equipment or property or damage to the environment.
- c) **Incident** – An unforeseen event or occurrence, which presents a hazardous condition, but does not necessarily result in injury or property damage.
- d) **Injury** – An accident leading to the need for medical attention to a passenger, employee, or other person that requires transport to a medical facility by ambulance, police, or other emergency vehicle for medical treatment.
- e) **Property Damage** – Damage, based on a preliminary gross estimate of \$100,000 or more for repairs, or current replacement cost, to fixed guideway and non-fixed guideway property.

**APTA Guidelines** – The American Public Transit Association's "Manual for the Development of Rail Transit System Safety Program Plans," published on August 20, 1991 (Revised June 2001).

**Contractor** – An entity that performs tasks required on behalf of the oversight or rail transit agency. The rail transit agency may not be a contractor for the oversight agency.

**Corrective Action Plan** – A plan developed by the rail transit agency that describes the actions the rail transit agency will take to minimize, control, correct, or eliminate hazards, and the schedule for implementing those actions.

**FRA** – The Federal Railroad Administration, an agency within the U.S. Department of Transportation.

**FTA** – The Federal Transit Administration, an agency within the U.S. Department of Transportation.

**Funicular** – A cable railway ascending a mountain; especially, one in which an ascending car counterbalances a descending car.

**Hazard** – Any real or potential condition (as defined in the rail transit agency's hazard management process) that can cause injury, illness, or death; damage to or loss of a system, equipment or property; or damage to the environment.

**Hazardous Condition** – A condition that may endanger human life or property. It includes unacceptable hazardous conditions.

**Individual** – A passenger; employee; contractor; other rail transit facility worker; pedestrian; trespasser; or any person on rail transit-controlled property.

**Industry Standard** – As a minimum, the standards as set forth in the APTA Guidelines as amended, or Military Standard 882, Military Standard for System Safety Program Requirements.

**Investigation** – The process used to determine the causal and contributing factors of an accident or hazard, so that actions can be identified to prevent recurrence.

**NCDOT** – The State of North Carolina Department of Transportation.

**New Starts Project** – Any rail fixed guideway system funded under FTA's 49 U.S.C. 5309 discretionary construction program.

**Oversight Agency** – The entity, other than the rail transit agency, designated by the state or several states to implement Part 659.

**Passenger** – A person who is on-board, boarding, or alighting from a rail transit vehicle for the purpose of travel.

**Passenger Operations** – The period of time when any aspect of rail transit agency operations are initiated with the intent to carry passengers.

**Program Standard** – A written document developed and adopted by the oversight agency, that describes the policies, objectives, responsibilities, and procedures used to provide rail transit agency safety and security oversight.

**Rail Fixed Guideway System (Commonly referred to as “Transit Agency” or “RFGS”)** – any light, heavy, or rapid transit system, monorail, inclined plane, funicular, trolley, or automated guideway that:

- a) Is included in the FTA’s calculation of fixed guideway route miles or receives funding under the FTA’s formula program for urbanized areas
- b) Is not regulated by the FRA
- c) Has submitted documentation to FTA indicating its intent to be included in FTA’s calculation of fixed guideway route miles to receive funding under FTA’s formula program for urbanized areas (49 U.S.C. 5336).

**Rail Transit Agency** – An entity that operates a rail fixed guideway system.

**Rail Transit-Controlled Property** – Property that is used by the rail transit agency and may be owned, leased, or maintained by the rail transit agency.

**Rail Transit Vehicle** – The rail transit agency’s rolling stock, including but not limited to passenger and maintenance vehicles.

**Safety** – Freedom from harm resulting from unintentional acts or circumstances.

**Security** – Freedom from intentional acts or circumstances

**Security and Emergency Preparedness Plan (SEPP)** – A document developed and adopted by the rail transit agency describing its security policies, objectives, responsibilities, and procedures.

**Safety Oversight Agency (SOA)** – The Safety Oversight Agency, NCDOT, designated to perform safety oversight functions over fixed guideway transit systems.

**State** – A State of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands.

**System Safety Program Plan (SSPP)** – A document or documents adopted by the transit agency detailing its safety and security policies, objectives, responsibilities, and procedures.

**System Security Plan** – A document or documents developed and adopted by the rail transit agency describing its security policies, objectives, responsibilities, and procedures.

**Transit Agency** – An entity authorized to operate, or contract the operation of an RFGS.

**Unacceptable Hazardous Condition** – Condition determined to be unacceptably hazardous, as determined by the Hazard Resolution Matrix in the APTA Guidelines.

## **B. SYSTEM SAFETY PROGRAM PLAN STANDARD**

### **B.1 OBJECTIVE**

The System Safety Program Standard (minimum requirements) must be considered for operational RFGS safety programs. The basic requirement for each system safety and security program is to develop a System Safety Program Plan (SSPP) and System Security Plan that complies with the State of North Carolina Fixed Guideway Safety Oversight Standards as described herein, 49 CFR Part 659, and the APTA Guidelines.

### **B.2 SSPP MINIMUM REQUIREMENTS**

NCDOT has adopted the minimum requirements for RFGS SSPPs from 49 CFR 659.17 and 49 CFR 659.19 of the revised Rule. NCDOT encourages RFGS to exceed this standard in their revenue service operations and to further enhance safety by applying system safety principles throughout all life cycle phases of the transit system's activities.

RFGS must develop, implement, and maintain a written SSPP that complies with the program requirements outlined in Figure 1, and detailed in the SSPP Review Checklist located in Appendix A of this document. These requirements are based on Appendix E of the *FTA Resource Toolkit for State Oversight Agencies Implementing 49 CFR Part 659*, issued January 2006.

At a minimum, the SSPP developed by the RFGS must:

- Be endorsed by top management of the transit agency
- Establish the safety goals and objectives of the transit agency
- Identify the safety roles and responsibilities of all RFGS departments/functions
- Require cooperation within the transit agency and the accountability of executive leadership for addressing identified safety issues
- Identify the hazard management process to be managed by the RFGS
- Identify the internal safety review process to be managed by the RFGS and overseen by NCDOT
- Identify the notification, investigation and reporting procedures to be used jointly by the RFGS and NCDOT in managing accidents meeting thresholds specified by FTA's rule
- Require communication and coordination with NCDOT in all SOA program provisions
- Provide a schedule for the implementation and revision of the SSPP.

**Figure 1. SSPP Requirements (21 Elements)**

1. Executive Approval (Policy Statement)
  - 1.1 Policy Statement
  - 1.2 Authority
2. Purpose, Goals and Objectives
  - 2.1 Purpose and Precepts
  - 2.2 Goals
  - 2.3 Objectives
3. Management Structure
  - 3.1 Overview
    - 3.1.1 General Overview and History of Transit Agency
    - 3.1.2 Scope of Transit Services
    - 3.1.3 Physical Plant
    - 3.1.4 Operations
    - 3.1.5 Maintenance
  - 3.2 Integration of Safety Function
  - 3.3 Lines of Authority for Safety
4. Plan Review and Modification
  - 4.1 SSPP Review Schedule
  - 4.2 SSPP Control and Update Procedures
  - 4.3 SSPP Review and Approval by the State Oversight Agency
  - 4.4 SSPP Change Management
5. SSPP Implementation – Tasks and Activities
  - 5.1 Overview
  - 5.2 System Safety Function
    - 5.2.1 Methodology Used by the System Safety Unit
  - 5.3 Safety Responsibilities of Other Departments
  - 5.4 Safety Task Responsibility Matrix (or Narrative Description)
6. Hazard Management Process
  - 6.1 Overview
  - 6.2 Hazard Management Process – Activities and Methodologies
  - 6.3 Coordinating with the State Oversight Agency
7. Safety Certification
8. Managing Safety in System Modifications
9. Safety Data Acquisition
  - 9.1 Data Acquisition Process
  - 9.2 Access to Data
10. Accident/Incident Notification, Investigation and Reporting
  - 10.1 Overview
  - 10.2 Accident/Incident Reporting Criteria
  - 10.3 Accident/Incident Investigation Procedures
  - 10.4 Internal Notification Procedure
  - 10.5 External Notification Procedure
  - 10.6 Accident/Incident Reporting and Documentation
  - 10.7 Corrective Action Resulting from Accident Investigation
  - 10.8 Coordination with State Oversight Agency

- 11. Emergency Response Planning/Coordination/Training
  - 11.1 Accident Response
  - 11.2 Evacuation Procedures
  - 11.3 Responsibilities for Emergency Preparedness
  - 11.4 Coordinated Schedule
  - 11.5 Emergency Drills and Exercises
  - 11.6 Emergency Procedures
  - 11.7 Emergency Training
  - 11.8 Familiarization Training
- 12. Internal Safety Review Process
  - 12.1 Overview
  - 12.2 Scope of Activities
  - 12.3 Review Process
    - 12.3.1 Integrity of Review Process
    - 12.3.2 Cycle/Schedule
    - 12.3.3 Checklists and Procedures
    - 12.3.4 Annual Review Report
    - 12.3.5 Review Reporting
    - 12.3.6 Coordination with the Oversight Agency
    - 12.3.7 Review Completeness
- 13. Rules Compliance/Procedures Review
  - 13.1 Overview
  - 13.2 Review of Rules and Procedures
  - 13.3 Process for Ensuring Rules Compliance
  - 13.4 Compliance Techniques – Operations and Maintenance Personnel
  - 13.5 Compliance Techniques – Supervisory Personnel
  - 13.6 Documentation
- 14. Facilities and Equipment Inspections
  - 14.1 Facilities and Equipment Subject to Inspection
  - 14.2 Regular Inspection and Testing
  - 14.3 Checklists
  - 14.4 Coordination with Hazard Management Process
- 15. Maintenance Reviews/Inspections
  - 15.1 Systems and Facilities Subject to Maintenance Program
  - 15.2 Resolution of Review/Inspection Findings
  - 15.3 Checklists
- 16. Training and Certification Review/Review
  - 16.1 Overview
  - 16.2 Employee Safety Program
  - 16.3 Safe Number of Working Hours for Safety-Sensitive Positions
  - 16.4 Contractor Safety
  - 16.5 Record Keeping
  - 16.6 Compliance with Training Requirements
- 17. Configuration Management
  - 17.1 Overview
  - 17.2 Process for Changes
  - 17.3 Authority for Change
- 18. Compliance with local, state and federal Requirements

- 18.1 Employee Safety Program
- 18.2 Working on or near Rail Transit Controlled Property
- 18.3 Compliance with Required Safety Programs
- 18.4 Compliance with the Contractor Safety Program

19. Hazardous Materials

20. Drug & Alcohol Abuse

21. Procurement

### **B.3 SUBSEQUENT REVIEWS OF THE SSPP**

Each RFGS shall conduct an annual review of its SSPP and update it as necessary to ensure that the SSPP is current at all times. The RFGS shall complete the review for the previous calendar year and submit a revised SSPP to the NCDOT point-of-contact by March 1. As appropriate, referenced materials affected by the revision(s) should also be submitted with the SSPP. Each revised SSPP shall also include a text or tabular summary that identifies and explains proposed changes and includes a timeframe for completion of the associated activities.

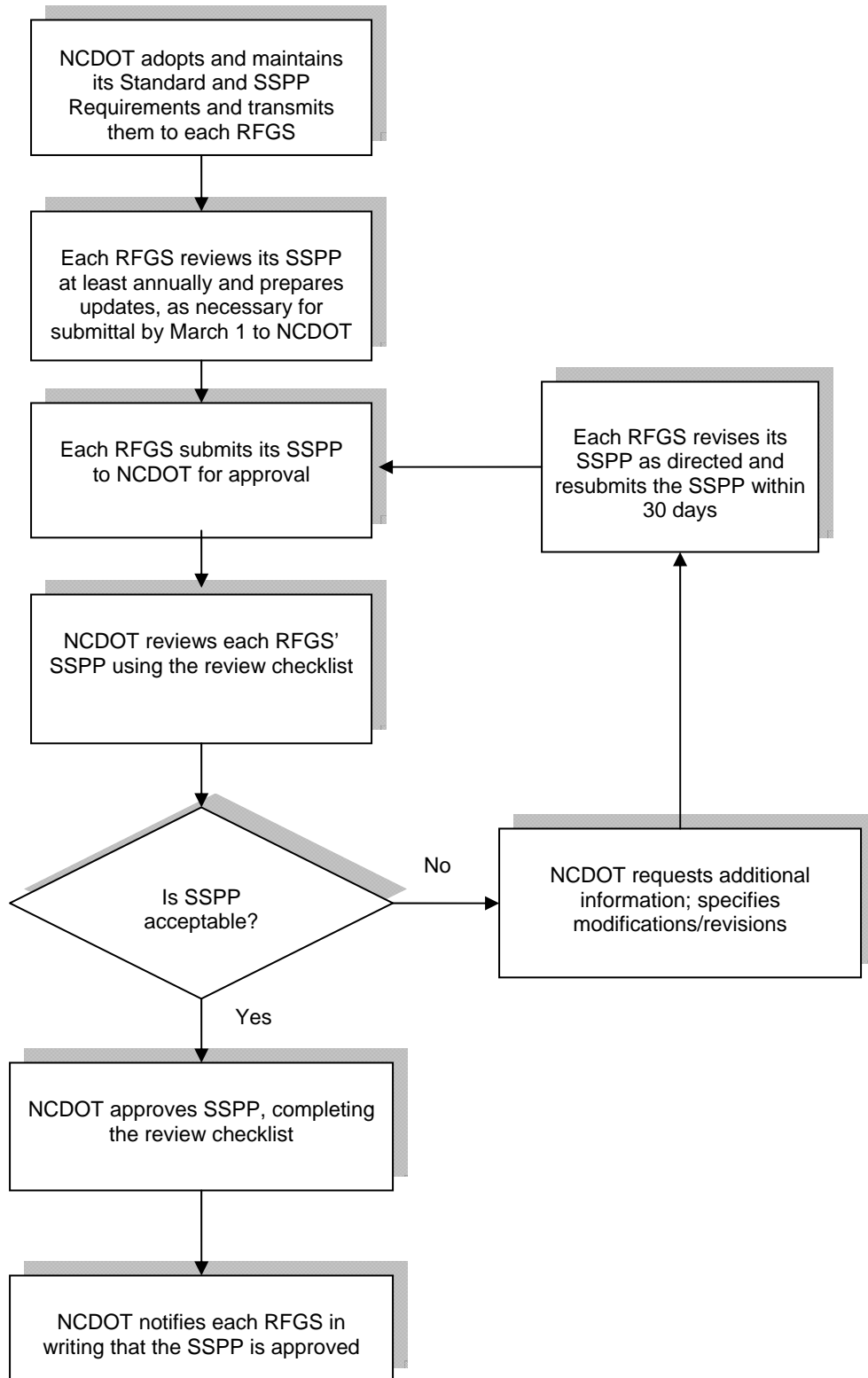
In the event that the RFGS conducts its annual SSPP review and determines that no update is necessary for that year, it must prepare and submit by March 1 formal correspondence notifying NCDOT of this determination. If NCDOT wishes to object to this determination, the NCDOT point-of-contact will notify the RFGS within 30 days.

Additional reviews of the RFGS SSPP may be required to address specific issues based on revisions to NCDOT's program standard or procedures, revisions to FTA 49 CFR 659, audit results, on-site reviews, investigations, or changing trends in incident data. Upon receipt of a written notification from NCDOT for SSPP modifications, the RFGS shall submit a revised SSPP to NCDOT within 30 days. NCDOT will review and approve the revised SSPP, and provide a formal approval letter and a completed review checklist (if appropriate for the change) within 30 days of receipt of the revised RTA SSPP.

In the event that the RFGS initiates updates outside of the annual review cycle, the RFGS shall submit the modified SSPP, and any subsequently modified procedures, to NCDOT for review and approval within 30 calendar days of the effective date of the change.

Figure 2 provides a visual depiction of the NCDOT SSPP review and approval process.

**Figure 2. SSPP Approval Process**



#### **B.4 SSPP SUBMITTALS FROM NEW STARTS PROJECTS**

An RFGS New Starts project shall make an initial submittal of an SSPP and all referenced procedures/materials to NCDOT at least 180 calendar days before beginning passenger service operations. The initial SSPP will be approved and adopted by the RFGS as part of the New Starts project safety and certification process.

#### **B.5 SSPP REVIEW PROCEDURE**

Using the SSPP Review conformance checklist (Appendix A), the NCDOT will review the SSPP and will determine if the SSPP meets the Federal and State Program requirements. While conducting its review, NCDOT may request additional information, clarifications or revisions from the RFGS safety point-of-contact. Any additional requirements will be conveyed by the NCDOT point-of-contact. Within 30 calendar days, the NCDOT, in writing, indicates its approval of the RFGS SSPP and provides a record copy of the conformance checklist.

Should the NCDOT determine an SSPP does not meet the State Safety Program Standard, the NCDOT notifies the transit agency of those elements requiring updates or modification, using the conformance checklist. The NCDOT or RFGS may request a meeting to review and discuss SSPP deficiencies and corrective actions to enable compliance with Program requirements.

The RFGS, within 15 days after notification of an unacceptable SSPP, may appeal to review the findings. Sufficient documentation and supporting evidence is formally submitted, regarding consideration of changes or waivers to the Program Documents. Upon review and within 15 days, the NCDOT may issue its findings and conclusions. Alternatively, the NCDOT, within 10 days after receipt of an appeal to review findings, may conduct meetings with the RFGS for further discussion and consideration of the matter. Within 10 workdays after meetings, the NCDOT issues its final decision.

## **C. SECURITY AND EMERGENCY PREPAREDNESS PLAN STANDARD**

### **C.1 OBJECTIVE**

This section identifies the minimum requirements for the Security and Emergency Preparedness Plan (SEPP) to be developed, approved, adopted and implemented by CATS.

### **C.2 SEPP MINIMUM REQUIREMENTS**

NCDOT has adopted a minimum System Security Program Standard in order to comply with requirements specified by FTA in 49 CFR 659 of the revised rule. Each RFGS shall develop, implement and maintain a written System Security Plan or equivalent plan(s) that complies with the Program requirements. At a minimum, the System Security Plan or equivalent plan(s) developed by the RFGS must:

- Identify the policies, goals, and objectives for the security program endorsed by the chief executive of the RFGS
- Document the RFGS process for managing threats and vulnerabilities during operations and for major projects, extensions, new vehicles and equipment including integration with the safety certification process
- Identify controls in place that address the personal security of passengers and employees
- Document the RFGS process for conducting internal security audits to evaluate compliance and measure the effectiveness of the system security plan
- Document the RFGS process for making available its system security plan and accompanying procedures to NCDOT for review and approval.

In addressing this last item, the NCDOT has authority in place to protect against the public disclosure of RFGS security documents. To ensure the further protection of these documents, NCDOT requests that all security submissions are either delivered to NCDOT point-of-contact person vial email or delivered via overnight mail with a signature required.

The SEPP requirements are identified in Figure 3.

**Figure 3: SEPP Requirements (7 Elements)**

1.0	System Security Program Introduction
1.1.	Purpose of the SEPP
1.1.1	System Security
1.1.2	Emergency Preparedness
1.2	Goals and Objectives
1.2.1	Goals
1.2.2	Objectives
1.3	Scope of Program
1.4	Security and Law Enforcement
1.5	Management Authority and Legal Aspects
1.6	Government Involvement
1.7	Security Acronyms and Definitions
2.0	System Description
2.1	Background and History of System
2.2	Organizational Structure
2.3	Human Resources
2.4	Passengers
2.5	Services and Operations
2.6	Operating Environment
2.7	Integration with Other Plans and Programs
2.8	Current Security Conditions
2.9	Capabilities and Practices
3.0	SEPP Management Activities
3.1	Responsibility for Mission Statement and System Security Policy
3.2	Management of the SEPP Program
3.3	Division of Security Responsibilities
3.3.1	Security/Police Function Responsibilities
3.3.2	Security Responsibilities of Other Departments/Functions
3.3.4	Job-specific Security Responsibilities
3.3.5	Security Task Responsibilities Matrix
3.3.7	Security Committees
4.0	SEPP Program Description
4.1	Planning
4.2	Organization
4.3	Equipment
4.4	Training and Procedures
4.5	Emergency Exercises and Evaluation
5.0	Threat and Vulnerability Identification, Assessment, and Resolution
5.1	Threat and Vulnerability Identification
5.1.1	Asset Analysis
5.1.2	Security Data Collection for the Identification of Threats and Vulnerabilities
5.1.3	Other Sources of Information – Security Reviews, Testing and Inspection Programs
5.1.4	Identifying Threats for Prioritized Assets
5.1.5	Identifying Vulnerabilities
5.2	Threat and Vulnerability Assessment
5.3	Threat and Vulnerability Resolution
6.0	Implementation and Evaluation of SEPP
6.1	Implementation Tasks for Goals and Objectives
6.2	Implementation Schedule

6.3	Evaluation
7.0	Modification of SEPP
7.1	Initiation
7.2	Review Process
7.3	Implement Modifications

### **C.3 ANNUAL REVIEW OF THE SEPP**

Each RFGS shall conduct an annual review of its SEPP and update it as necessary to ensure that the SEPP is current at all times. The RFGS shall complete the review for the previous calendar year and submit a revised SEPP to the NCDOT point-of-contact by March 1. As appropriate, referenced materials affected by the revision(s) should also be submitted with the SEPP. Each revised SEPP shall also include a text or tabular summary that identifies and explains proposed changes and includes a timeframe for completion of the associated activities.

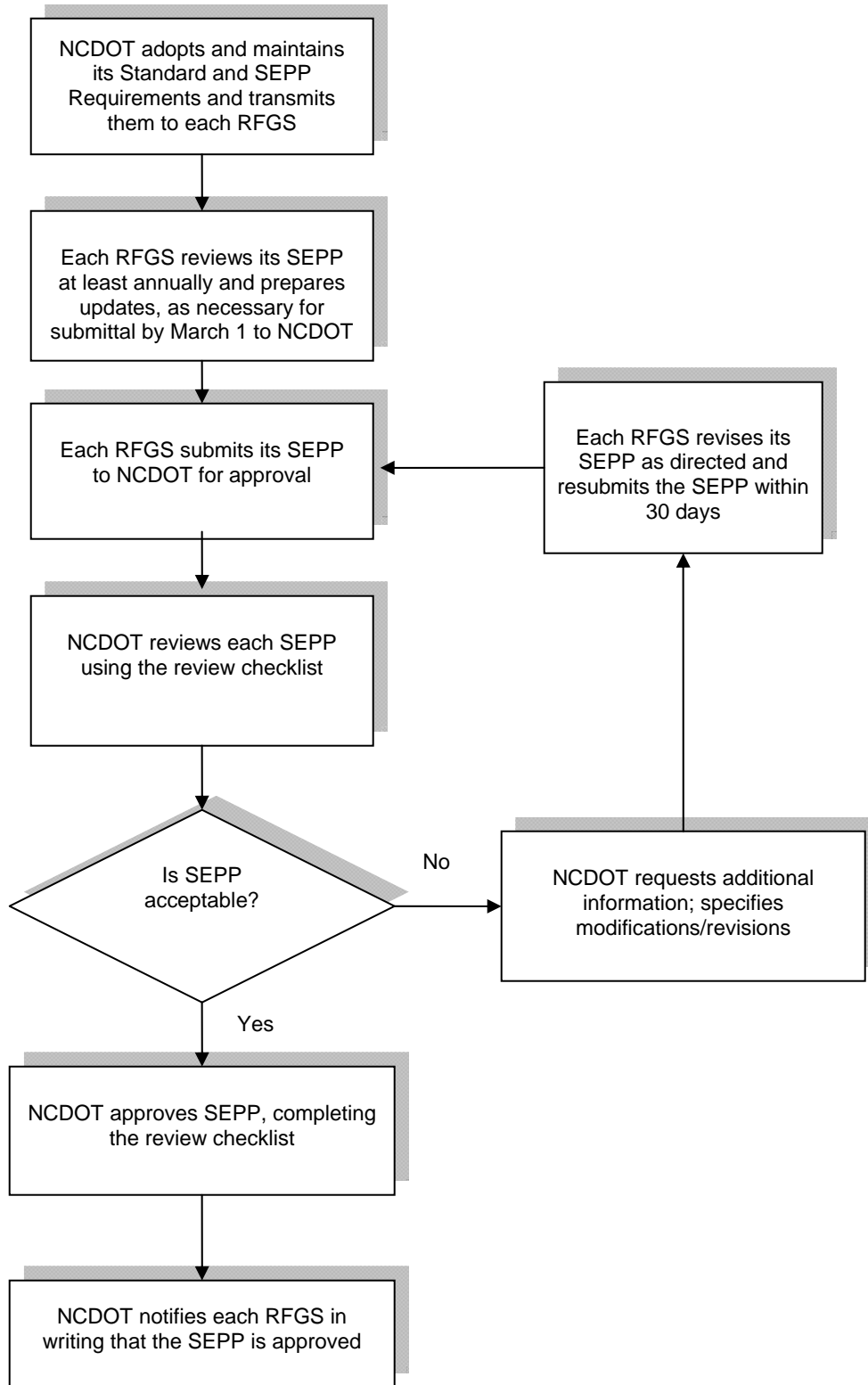
In the event that the RFGS conducts its annual SEPP review and determines that no update is necessary for that year, it must prepare and submit by March 1 formal correspondence notifying NCDOT of this determination. If NCDOT wishes to object to this determination, the NCDOT point-of-contact will notify the RFGS within 30 days.

Additional reviews of the RFGS SEPP may be required to address specific issues based on revisions to NCDOT's program standard or procedures, revisions to FTA 49 CFR 659, audit results, on-site reviews, investigations, or changing trends in incident data. Upon receipt of a written notification from NCDOT for SEPP modifications, the RFGS shall submit a revised SEPP to NCDOT within 30 calendar days. NCDOT will review and approve the revised SEPP, providing a formal approval letter and a completed review checklist (if appropriate for the change) within 30 days of receipt of the revised RFGS SEPP.

In the event that the RFGS initiates updates outside of the annual review cycle, the RFGS shall submit the modified SEPP, and any subsequently modified procedures, to NCDOT for review and approval within 30 calendar days of the effective date of the change.

Figure 4 provides a visual depiction of the NCDOT SEPP review and approval process.

**Figure 4: SEPP Approval Process**



#### **C.4 SEPP SUBMITTALS FROM NEW STARTS PROJECTS**

An RFGS New Starts project shall make an initial submittal of an SEPP and all referenced procedures/materials to NCDOT at least 180 calendar days before beginning passenger service operations. This submission shall be made following any restrictions placed upon these materials by either the RFGS or NCDOT to ensure their protection from public release. The initial SEPP will be approved and adopted by the RFGS as part of the New Starts project safety certification process.

NCDOT will review and approve the initial SEPP using its review checklist and will transmit a formal letter of approval and the completed checklist to the RFGS point-of-contact. During its review, NCDOT may make requests for additional information, revisions and modifications. Any additional requirements will be conveyed by the NCDOT point-of -contact.

#### **C.5 SEPP REVIEW PROCEDURE**

Using the SEPP Review Conformance Checklist (Appendix B), the NCDOT will review the SEPP and will determine if the SEPP meets the Federal and State Program requirements. While conducting its review, NCDOT may request additional information, clarifications or revisions from the RFGS safety point-of-contact. Any additional requirements will be conveyed by the NCDOT point-of-contact. Within 30 calendar days, the NCDOT, in writing, indicates its approval of the RFGS SEPP and provides a record copy of the conformance checklist.

Should the NCDOT determine a SEPP does not meet the State Safety Program Standard, the NCDOT notifies the transit agency of those elements requiring updates or modification, using the conformance checklist. The NCDOT or RFGS may request a meeting to review and discuss SEPP deficiencies and corrective actions to enable compliance with Program requirements.

The RFGS, within 15 days after notification of an unacceptable SEPP, may appeal to review the findings. Sufficient documentation and supporting evidence is formally submitted, regarding consideration of changes or waivers to the Program Documents. Upon review and within 15 days, the NCDOT may issue its findings and conclusions. Alternatively, the NCDOT, within ten days after receipt of an appeal to review findings, may conduct meetings with the RFGS for further discussion and consideration of the matter. Within 10 workdays after meetings, the NCDOT issues its final decision

## **D. INTERNAL SAFETY AND SECURITY PROGRAM REVIEW**

### **D.1 OBJECTIVES**

The section describes the requirements for the internal safety and security program review to be implemented by the RFGS.

### **D.2 MINIMUM REQUIREMENTS FOR REVIEWS**

NCDOT requires that internal safety and security audits be conducted by the RFGS of the SSPP and the SEPP. Over a three-year period the RFGS must audit the implementation of all 21 elements of the SSPP and all 7 elements of the SEPP. The checklists in Appendices A and B list these elements for the SSPP and the SEPP, respectively. Each calendar year, on or before a date designated by NCDOT, the RFGS must submit a schedule to NCDOT detailing when they will audit these elements over the next three-year period, and provide specific scheduling details (at a minimum the month or quarter of anticipated schedule) for any audits in the next calendar year.

NCDOT reserves the right to participate in the RFGS's internal safety and security audits as conducted. NCDOT will provide the RFGS with notification of its intent to participate in internal safety or security audits. The RFGS submits a copy of its Annual Safety Activities Report and Safety and Security Audit Report to the NCDOT by December 1 each year. The report, prepared by the transit agency includes results of the Internal Safety and Security Audit Process (Appendix E) and includes other audits performed during the preceding year.

After the RFGS completes each safety or security audit, it must submit a safety or security audit report to NCDOT within 30 Days of the audit closure meeting. The report must include the following information:

1. A summary of the internal audit.
2. The completed internal audit checklists.
3. Findings of the internal audit
4. Suggested corrective actions to address the findings.

These reports will be approved (possibly with comments), conditionally approved, or NCDOT will state that it is "unable to approve" at formal SSO meetings

## E. HAZARD MANAGEMENT PROCESS

### E.1 HAZARD IDENTIFICATION

As part of the Hazard Management Process, the methods used to ensure that the maximum number of hazards are identified and entered into the Hazard Resolution Process are described. These methods may include such exercises as Preliminary Hazard Analysis (PHA), Operating Hazard Analysis (OHA), Critical/Catastrophic Items List (CCIL), Fault Tree Analysis, Subsystem Interface Analysis, various Human Factors Analysis, and Joint Railroad-Fixed Guideway Corridor Operations.

In the hazard identification section of the SSPP, RFGS should describe the processes used to identify and record hazards. This section should describe any hazard identification programs associated with capital projects, mechanisms for soliciting hazard reports and input from employees, any committees where the scope includes safety issues, etc. Hazard identification can be formal or informal, and RFGS should describe all methodologies used. These may range from structured hazard analysis programs to simple field observation. RFGS's hazard management program should have continuous hazard identification as its core.

Hazardous conditions that meet the reporting thresholds shall be considered accidents, and shall be subject to the reporting and investigation requirements set forth in Sections 8 and 9 of the SSPP.

On a monthly basis at a time designated by the NCDOT, RFGS shall submit its hazard log(s). Hazard logs shall be formatted to show at a minimum all open/current hazards and all hazards that were open within the last 120 days. NCDOT will review hazard logs independently, and will review select hazard items with RFGS during meetings.

### E.2 HAZARD CATEGORIZATION

The following sections represent a methodology used for determining which hazards are acceptable, acceptable with certain conditions applied, and unacceptable. A method of categorizing all identified hazards is included.

**Hazard Severity** - A subjective measure of the worst credible mishap resulting from personnel error, environmental conditions, design inadequacies, and/or procedural efficiencies for system, subsystem, or component failure or malfunction, categorized as follows:

- I. (Catastrophic) Death or system loss
- II. (Critical) Severe injury, severe occupational illness, or major system damage
- III. (Marginal) Minor injury, minor occupational illness, or minor system damage
- IV. (Negligible) Less than minor injury, occupational illness, or system damage

**Hazard Probability** - The probability that a specific hazard will occur during the planned life expectancy of the system element, subsystem, or component. It can be described subjectively in potential occurrences per unit, events, population, items, or activity, ranked as follows:

- A. (Frequent) – Likely to occur frequently (individual); continuously experienced in fleet/inventory.
- B. (Probable) – Will occur several times in life of an item; will occur frequently in fleet inventory.

- C. (Occasional) – Likely to occur sometime in the life of an item; will occur several times in fleet/inventory.
- D. (Remote) – Unlikely but possible to occur in life of an item; unlikely but it can be expected to occur in fleet/ inventory.
- E. (Improbable) – So unlikely, it can be assumed the occurrence may not be experienced; unlikely to occur, but possible in fleet/inventory.

Once a hazard is identified, an analysis as to its potential severity and probability of occurrence is performed. The RFGS standardizes the process for this analysis and documents the approved procedure. While developing qualitative methodology for this type of analysis is possible, the most practical method for RFGS application is simple deductive reasoning, applied on a collective or organizational basis. The composite management staff of all key line and staff departments, administered by the safety unit, can effectively determine the severity of all but the most difficult or unusual hazards.

It is important, however, to determine in advance the exact mechanism for implementation of this process. The plan provides for an administrative appeal process, should a consensus on categorizing a specific hazard prove too difficult to achieve. Included in the administrative appeal process, the plan provides for a mechanism that may provide for outside assistance, as necessary.

Hazards identified on an ongoing basis enter the formal process, the same as those identified by formal analyses techniques associated with new procurement and new system construction. All employees involved in the hazard identification process know and understand their respective roles.

### **E.3 HAZARD RESOLUTION**

Hazard resolution is the analysis and subsequent actions to reduce to the lowest level practical, the risk associated with an identified hazard. Hazard resolution is not synonymous with hazard elimination. In RFGS environment, some hazards are impossible to eliminate and others are highly impractical to eliminate. Using protective and warning devices or special procedures are ways to consider a reduction of risk. Some hazards present unacceptable risks because of severity and high probability. These hazards must be eliminated.

Part of the hazard resolution procedure is a predetermined matrix prescribing which identified hazards are acceptable, acceptable with mitigation, and unacceptable. Once this matrix is defined by the transit agency, deviation from the prescribed resolution process should occur only through approved, predetermined channels. A Sample Hazard Resolution Matrix, provided for use by the RFGS, is shown in Figure 5.

**Figure 5. Hazard Resolution Matrix**

<b>Hazard Resolution Matrix</b>				
	<i>Catastrophic</i>	<i>Critical</i>	<i>Marginal</i>	<i>Negligible</i>
<b>Frequent</b>	<b>UNACCEPTABLE</b>	<b>UNACCEPTABLE</b>	<b>UNACCEPTABLE</b>	<i>Acceptable<sup>WR1</sup></i>
<b>Probable</b>	<b>UNACCEPTABLE</b>	<b>UNACCEPTABLE</b>	UNDESIRABLE	<i>Acceptable<sup>WR1</sup></i>
<b>Occasional</b>	<b>UNACCEPTABLE</b>	UNDESIRABLE	UNDESIRABLE	<u>ACCEPTABLE</u>
<b>Remote</b>	UNDESIRABLE	UNDESIRABLE	<i>Acceptable<sup>WR1</sup></i>	<u>ACCEPTABLE</u>
<b>Improbable</b>	<i>Acceptable<sup>WR1</sup></i>	<i>Acceptable<sup>WR1</sup></i>	<i>Acceptable<sup>WR1</sup></i>	<u>ACCEPTABLE</u>
<i>Acceptable<sup>WR1</sup></i> — <u>ACCEPTABLE</u> with review by management staff				

A formal policy is established; clearly identifying which incidents will be investigated. As part of the policy, the transit agency defines the thresholds for automatic activation of an investigation; guidelines on whether incidents should be investigated immediately or after the fact; and guidelines on who is in charge of each specific level of investigation. The RFGS submits written incident investigation reports for review and concurrence. The reports include information of the most probable cause, other contributing causal data, corrective action plans, and schedule for implementing action.

RFGS shall report all hazardous conditions to NCDOT that affect the safety or security of the rail system. At a minimum, RFGS shall report those hazardous conditions meeting the “unacceptable” criteria set forth in the Hazard Identification/Resolution Matrix:

- I-A (Catastrophic/Frequent)
- II-A (Critical/Frequent)
- III-A (Marginal/Frequent)
- I-B (Catastrophic/Probable)
- II-B (Critical/Probable)
- I-C (Catastrophic/Occasional)

Hazardous conditions that meet the reporting thresholds listed above shall be considered “accidents” and are subject to the reporting and investigation requirements set forth in Section F.

#### **E.4 INCIDENT INVESTIGATIONS AND REPORTS**

A formal policy is established, clearly identifying which incidents will be investigated. As part of the policy, the transit agency defines the thresholds for automatic activation of an investigation; guidelines on whether incidents should be investigated immediately or after the fact; and guidelines on who is in charge of each specific level of investigation. The RFGS submits written incident investigation reports for review and concurrence. The reports include information of the most probable cause, other contributing causal data, corrective action plans, and schedule for implementing action.

#### **E.4.1 Investigation of Hazards**

A formal policy is established; clearly identifying which hazards will be investigated. As part of the policy, the transit agency defines the thresholds for automatic activation of an investigation; guidelines on whether incidents should be investigated immediately or after the fact; and guidelines on who is in charge of each specific level of investigation. The RFGS submits written investigation reports for review and concurrence. The reports include information of the most probable cause, other contributing causal data, corrective action plans, and schedule for implementing action.

#### **E.4.2 Hazard Tracking**

RFGS should establish an appropriate means for tracking all hazards, including information such as the following:

- Hazard description
- Immediate mitigation (if needed)
- Origin of hazard (e.g., accident investigation, capital project hazard analysis, employee safety committee, etc.)
- Date hazard was identified
- Hazard analysis results (frequency and severity, hazard score, etc., depending on analysis method)
- Proposed permanent hazard resolution
- Hazard resolution verification/follow-up activities
- Date hazard closed
- Responsible investigator or committee leader
- Other relevant information

Hazard logs may be kept in separate files for separate projects, ongoing operations/maintenance, etc. On a monthly basis, at a time designated by NCDOT, the RFGS shall submit its hazard log(s) for review. Hazard logs shall be formatted to show at a minimum all open/current hazards and all hazards that were open within the previous 120 days. The hazards logs shall be reviewed monthly for trending purposes. The RFGS will note repeat hazards and will perform an analysis to determine the need for possible system modification.

#### **E.4.3 Corrective Action Plans (CAP)**

After the occurrence of an accident or the discovery of an unacceptable hazardous condition, each RFGS is required to submit a corrective action plan to the NCDOT. The corrective action plan will include the investigation and proposed actions planned to minimize, control, correct, or eliminate and investigate any unsafe or hazardous condition. To provide a consolidated program for management of corrective actions, the RFGS shall track all open items in a log. The log shall contain a tracking number, assigned to all action items and other entries to provide sufficient data to monitor the related elements. The consolidated log includes entries related to corrective actions for investigation reports, annual audits, three year safety reviews, FTA Program Audits, unacceptable hazardous conditions, hazard analysis or safety reviews performed at the request of the NCDOT, and other related external reviews. Please refer to Procedures for Accident and Unacceptable Hazardous Condition Investigation and Reporting (Appendix C) for further guidance.

## **F. ACCIDENT/INCIDENT AND UNACCEPTABLE HAZARDOUS CONDITIONS – INVESTIGATING AND REPORTING**

### **F.1 OBJECTIVE**

This section addresses the requirements in place for the notification, investigation and reporting of accidents meeting the thresholds specified in FTA's 49 CFR Part 659.33.

### **F.2 MINIMUM REQUIREMENTS**

Each RFGS investigates<sup>1</sup> all reportable accidents on behalf of the NCDOT. The NCDOT may conduct separate, independent investigations at its own discretion.

When the investigation involves post-accident inspections, examinations and testing, the RFGS notifies the NCDOT so that it may participate in the investigation.

The RFGS documents its investigation in a written report that identifies the most probable cause and other contributing causes of the accident or unacceptable hazardous condition. The report contains or references a corrective action plan and schedule to prevent a recurrence of the accident, or to mitigate the unacceptable hazardous condition.

Accident and incident investigations are related to the hazard resolution process in that feedback and follow-up from these investigations are to be automatically entered into the hazard resolution process. It is virtually impossible to anticipate all hazards before they cause an accident or incident, however, once an incident occurs; the RFGS safety entity takes the necessary actions to prevent a recurrence.

#### **F.2.1 Criteria**

The RFGS, by formal policy, clearly identifies which accidents/incidents to investigate. As part of the policy, the transit agency defines the thresholds for automatic activation of an investigation; guidelines on whether it investigates incidents immediately or after the fact; and guidelines on the person in charge of each specific level of investigation.

#### **F.2.2 Accident and Unacceptable Hazardous Conditions Notification**

At a minimum each RFGS must notify NCDOT of accidents in accordance with the requirements of the FTA SSO Final Rule, Parts 659.33 (Accident notification) and 659.35 (Investigations). If an accident or incident occurs that meets any of these criteria, RFGS must notify NCDOT within two (2) hours of the accident's occurrence, and provide the information. Reportable accidents/incidents are those, which meet the following thresholds:

- A fatality at the scene; or where an individual is confirmed dead within thirty (30) days of a rail transit-related incident;
- Injuries requiring immediate medical attention away from the scene for two or more individuals;
- Property damage to rail transit vehicles, non-rail transit vehicles, other rail transit property or facilities and non-transit property that equals or exceeds \$25,000;

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<sup>1</sup> Where the operation of a rail fixed guideway system is under contract to a transit agency, the transit agency must investigate all accidents.

- An evacuation due to life safety reasons;
- A collision at a grade crossing;
- A main line derailment that includes revenue vehicles or powered non-revenue vehicles.
- A collision with an individual on a rail right of way; or
- A collision between a rail transit vehicle and any other vehicle.

NCDOT should be informed of all accidents and incidents that have a safety or security impact on the transit system, even if they do not meet the accident reporting threshold defined above.

Upon the occurrence of one of these incidents, the RFGS will notify all NCDOT of the essential facts of the incident within the 2-hour notification time frame and submit a Reportable Incident Investigation form to NCDOT. This form will include:

- The date and time of the notification
- The NCDOT or authorized representative notified
- The date and time of the notification
- Whether the incident was preventable
- If any corrective actions will be/ have been taken
- Whether the investigation is complete

### **F.2.3 Security Incidents Notification**

NCDOT recognizes that due to differences in resources, procedures and missions, security incident notifications require a different process than safety notifications. A security incident is defined as an incident which occurred or might have occurred due to intentional and potentially criminal acts by a person or persons. The criteria for reportable security incidents parallel those outlined in the Section above. For example, a fight on CATS property resulting in the hospital transport of two individuals would constitute a reportable security incident, just as an accident on the right-of-way, which resulted in hospital transport for two workers, would be a reportable accident. And vandalism to CATS property causing \$25,000 or more worth of damage would be a reportable security incident, just as an accident in a rail yard causing \$25,000 worth of damage would be a reportable accident.

**The following instances constitute reportable security incidents:**

- A fatality at the scene; or where an individual is confirmed dead within thirty (30) days of a rail transit security incident;
- Injuries requiring immediate medical attention away from the scene for two or more individuals secondary to a security incident;
- Property damage to rail transit vehicles, non-rail transit vehicles, other rail transit property or facilities and non-transit property that equals or exceeds \$25,000;
- An evacuation due to security reasons including but not limited to bomb threats and/or suspicious packages;
- A main line derailment that includes revenue vehicles or powered non-revenue vehicles.
- A collision with an individual on a rail right of way; or
- A collision between a rail transit vehicle and any other vehicle.

Upon the occurrence of one of these incidents, the RFGS will notify all NCDOT of the essential facts of the incident within the 2-hour notification time frame and submit a Reportable Incident Investigation form to NCDOT. This form will include:

- The date and time of the notification
- The NCDOT or authorized representative notified
- The date and time of the notification
- Whether the incident was preventable
- If any corrective actions will be/ have been taken
- Whether the investigation is complete

#### **F.2.4 Procedures/Reporting/Follow-up**

Describe the procedures used for performing investigations, including the reporting of findings, conclusions reached, corrective action recommendations, and follow-up to verify corrective action implementation.

#### **F.2.5 Internal Notification**

Include a list of personnel, in priority order, that are notified when there is an occurrence (accident or incident).

#### **F.2.6 Documentation**

All necessary information pertaining to a specific occurrence is documented in a standard format and available upon request. The documentation includes, but is not limited to, any work history, system modification, mechanical analysis, and required training or retraining (in case of human or procedural error).

#### **F.2.7 External Notification**

The RFGS must provide the following information in both verbal and written form as part of the initial 2-hour notification:

- a. Caller's name and contact phone number;
- b. Time and date of accident or security incident;
- c. Type of accident or security incident;
- d. Location and direction of travel of incident;
- e. Transit vehicle identifying information, including line, direction, vehicle number, etc;
- f. Information about any other vehicles involved
- g. Number of persons injured and requiring medical attention away from the scene
- h. Number of fatalities
- i. Estimated property damage (in dollars);
- j. A description of the accident/incident or scene
- k. A description of accident investigation activities completed and anticipated in the short term
- l. Preliminary determination of cause, if available

Include a list of all agencies that are notified following an occurrence. This list includes the NTSB, NCDOT, any local regulatory agencies, and others as required according to statutes or separate agreements.

### **F.2.8 State Safety Oversight Agency Accident Investigation**

According to 49 CFR Part 659, the oversight agency investigates accidents/incidents that exceed the thresholds established in Section A.8. Definitions and associated with: operations and maintenance of fixed guideway vehicles, other on-track/guideway equipment, signal systems, traction power systems, or maintenance of track/guideway and other wayside equipment.

### **F.3 INVESTIGATIONS OF REPORTABLE EVENTS**

Regulation 49 CFR Part 659.35 requires NCDOT to investigate, or cause to be investigated, at a minimum, any incident involving a rail transit vehicle or taking place on rail transit-controlled property meeting the notification thresholds. In conducting these investigations, NCDOT may authorize RFGS to conduct an investigation on its behalf, conduct its own independent investigation, or, if the NTSB is investigating the accident, join in the investigation through NTSB's Party System.

All final accident/incident reports produced for NCDOT must contain, at a minimum, the information contained in the list below (from 49 CFR Part 659.35(d):

1. Description of investigation activities
2. Identification of causal and contributing factors
3. Corrective action plan to prevent recurrence, and to address a specific finding, recommendation, or other conclusion of the report. (This may comprise corrective actions already taken, in which case no further corrective action plans may need to be developed.)

More information may be included, based on the RFGS accident investigation procedures or external recommendations (such as APTA accident investigation procedure standards, RT-SOP-002-02). Likewise, the NCDOT may request more information in order to gain information about a particular accident/ incident or about accident/ incident trends.

RGFS must notify the NCDOT of all reportable accidents and incidents according to the criteria set forth in Section F. Accident investigation reports, comprised of reports from operations, maintenance, etc. as appropriate, and Safety department investigation documentation as appropriate must be sent to the NCDOT on the following schedule:

1. Initial Notification:  
Basic information about the reportable accident/incident must be transmitted verbally and via email to the NCDOT on standard forms (approved, by NCDOT).
2. Preliminary Report:  
As soon as possible after the accident/incident, but within three (3) business days, RFGS must fax, email, or hand-deliver preliminary written information, including any investigation summary information, preliminary reports from field personnel, and other available information.
3. Investigation Status Report:  
NCDOT may, at its discretion, request from the RFGS a report indicating the status of an investigation, including any significant new reports or report components, and any preliminary investigation conclusions within ten (10) days of the accident/incident. If the

investigation process is not complete within 30 calendar days of the occurrence, the RFGS must submit an Investigation Status Report including an adjusted schedule for the completion of the investigation.

4. Final Accident/ Incident Investigation Report:

At the conclusion of its investigation, the RFGS must submit to NCDOT a final accident report that meets all of the requirements. The NCDOT will work with the RFGS to close open investigations with consideration of needed investigative processes, including (but not limited to) transportation investigations, derailment reports, security investigations, medical examiner reports, and other required materials to close an accident/ incident investigation.

### **F.3.1 Authorization of the RFGS to Conduct Investigation on Behalf of NCDOT**

In general, NCDOT authorizes RFGS to conduct accident investigations on its behalf, unless otherwise notified. For all investigations conducted by RFGS on behalf of NCDOT, RFGS must use investigation procedures that have been approved by NCDOT.

RFGS must submit any updates and revisions to its accident investigation procedures to NCDOT as they are completed and implemented by RFGS or with the annual update of the SSPP and SEPP. These procedures should be treated as part of the SSPP.

In the event that authorization is conferred upon RFGS to conduct the investigation, NCDOT may participate in the investigation process. The terms of participation are specified in the RFGS SSPP and in the RFGS accident investigation procedures.

Each RFGS investigation conducted on behalf of NCDOT must be documented in a final report that includes a description of investigation activities, findings, identified causal factors, and a corrective action plan, if applicable. For those reportable incidents for which no further information is required beyond that contained in the Preliminary Accident/Incident/Hazardous Condition Report Form [or some other report form], RFGS will memorialize said form as its Draft Final Report and re-submit to NCDOT.

At its discretion, and as specified in its accident investigation procedures, RFGS may separate its investigation report into two parts: (1) description of investigation activities, investigation findings, and determination of the most probable cause and additional contributing causes; and (2) recommendations to prevent recurrence, including a corrective action plan.

The investigation report prepared by RFGS shall be submitted to NCDOT within 30 calendar days following completion of the investigation. Until the investigation is completed, RFGS shall prepare and submit monthly status investigation reports. The status investigation reports at a minimum shall include:

- Minutes of any meeting held by an RFGS ad hoc reportable event investigation committee or contractor
- Disclosure of any immediate corrective actions RFGS has planned or completed
- Principal issues or items currently being evaluated
- Overall progress and status of the investigation.

At any time during an investigation, RFGS shall be prepared to provide a full briefing on the known circumstances of the event, status of RFGS or NTSB investigation, and investigation activities.

Upon receipt of the RFGS investigation report, NCDOT will review the report. In the event that NCDOT does not agree with the description of the investigation, the identification of primary and contributing causes, or the findings of the RFGS report, NCDOT shall communicate in writing to the RFGS safety-point-of-contact the area(s) of disagreement or concern. NCDOT will work with the RFGS to address these issues in the RFGS's accident investigation report. In the event that agreement cannot be reached on these issues, NCDOT will issue its own accident investigation report, which may be no more than the RFGS report and the NCDOT dissent.

NCDOT approval must be obtained on the corrective action plan portion of the RFGS accident investigation report. In the event that NCDOT takes issue with RFGS's proposed corrective action plan, NCDOT and RFGS must work together until NCDOT approval can be obtained.

To reduce the potential for conflict, NCDOT encourages RFGS to submit a draft version of the accident investigation report to the NCDOT Manager so that agreement may be obtained on the most probable cause, additional contributing causes, corrective action plan, and an implementation schedule before the report is finalized and formally issued by RFGS.

Reports and records of accident investigations submitted to NCDOT by RFGS, as well as related reports and records produced by both NCDOT and RFGS, will be treated as confidential information, and will not be released without concurrence by both NCDOT and RFGS.

#### **F.4 INDEPENDENT NCDOT INVESTIGATIONS**

At its discretion, NCDOT may choose to conduct an independent investigation of any accident meeting the thresholds specified in Section A.8 utilizing its own personnel or an authorized contractor. Any investigation conducted by NCDOT or its contractor must be in accordance with the approved RFGS investigation procedures. NCDOT investigations may also follow the American Public Transportation Association (APTA) Standard for Rail Transit Accident/Incident Investigation (Volume 4—Operating Practices APTA RT-S-OP-002-02 dated July 26, 2004). This referenced standard has been submitted to FTA as part of NCDOT's Initial Submission.

NCDOT will inform RFGS of its intention to conduct an investigation or participate in an RFGS investigation of a reported event no later than 7 calendar days following receipt of the RFGS initial report. NCDOT will advise RFGS as to the personnel who will be conducting the independent investigation, and provide a preliminary schedule as to the investigation process.

All NCDOT authorized accident investigation personnel are granted authority under the state safety oversight program to conduct an investigation and evaluate records, materials, data, analysis, and other information which is pertinent to the investigation. It is expected that RFGS will provide to the NCDOT investigation team the resources and information necessary to conduct the investigation in an effective and efficient fashion.

NCDOT accident investigation personnel may conduct field analysis, operational surveys, interviews, record checks, data analysis, and other on-site and off-site tasks which may be necessary for a comprehensive investigation. If NCDOT accident investigation personnel require information or analysis which is not readily available, or which may require additional

resources by RFGS, it will request this data in a written request to RFGS safety point-of-contact via email or letter.

In conducting its investigation, NCDOT will, at a minimum, perform the following activities:

- NCDOT will assign a team of qualified personnel to investigate the accident (off and on-site). The team will include individuals with technical expertise in the type of accident being investigated. For example, a vehicle expert would be included in a team conducting the accident investigation for an accident involving a rail vehicle mechanical failure. Technical areas of specialization may include:
  - System Safety
  - Safety Training
  - Transportation Management and Operations
  - Substance Abuse Programs
  - Vehicles and Vehicle Maintenance
  - Worker Health and Safety, Facility Safety, and Hazardous Materials
  - Emergency Operations
  - Track, Structures, Signals and Communications
  - Transit System Security
- The NCDOT on-site team will wait until RFGS and/or other emergency response personnel have secured the accident/incident scene area before commencing its on-site accident investigation. NCDOT reserves the right to request that RFGS hold the accident scene to the maximum extent feasible until the arrival of, and accident investigation by, NCDOT team members.
- The NCDOT team will assess physical evidence of the accident scene including: damage and debris analysis; skid mark analysis; and the use of measurements, diagrams and photographs. They also will document the environmental and physical factors of the accident scene.
- As part of the accident/incident investigation NCDOT will also assess compliance with operating rules and procedures; conduct follow-up interviews (if required); analyze employee records and the results of post accident drug and alcohol tests; and conduct vehicle and equipment inspections.
- All information gathered from the accident/incident investigation will be documented and included in the NCDOT accident investigation report.
- Within 30 work days of completion of the on-site and off-site accident investigation requirements, the NCDOT investigation team will prepare a draft accident investigation report.
- The draft accident investigation report will be provided to RFGS for its review. Comments will be due to NCDOT 10 work days after initial RFGS receipt of the draft report. If necessary, a meeting to discuss the draft report will also be held between NCDOT and RFGS.
- If necessary, and based upon the comments received from the transit agency, the draft report will be revised.

- A final accident investigation report will be issued by NCDOT within 30 work days of the end of the comment period.

RFGS will be required to review the final NCDOT accident investigation report, and within 10 days after receiving it, either (1) provide concurrence to implement the NCDOT-proposed corrective action plan or, (2) submit an alternate corrective action plan to NCDOT for review and approval.

#### **F.4.1 NTSB Investigations (Reference 49 CFR Part 831)**

The NTSB may investigate an accident to achieve its primary function to promote safety in transportation. In such case, the NTSB is responsible for the investigation, determination of facts, conditions, and circumstances and the cause or probable cause or causes of the accident; and, makes recommendations to reduce the likelihood of recurrence of the accident.

Any employee of the Safety Board, upon presenting appropriate credentials, is authorized to enter any property wherein a transportation accident has occurred or wreckage from any such accident is located and do all things necessary for proper investigation, including examination or testing of any vehicle, rolling stock, track, or any part of any part of any such item when such examination or testing is determined to be required for purposes of such investigation.

The NTSB will designate an Investigator-In-Charge (IIC) who shall organize, conduct, control, and manage the field investigation. The IIC has the authority to supervise and coordinate all resources and activities of all personnel, both NTSB members and non-members, involved in the investigation.

The IIC designates parties to participate in the investigation. Parties shall be limited to persons, governmental agencies, companies, and associations whose employees, functions, activities, or products were involved in the accident or incident and who can provide suitable qualified personnel to actively assist in the investigation. The NCDOT Investigator may be designated a party representative by the IIC.

The Investigator, if designated a party representative to participate in the investigation, shall be responsive to the direction of the NTSB representatives and comply with assigned duties. Failure to comply may result in loss of party status. The Investigator must inform the NTSB of the roles and responsibilities, regarding accident and incident investigation, of the agency represented. In the event, the NCDOT determines to conduct an independent investigation, the NTSB must be informed. The Investigator, as a party representative, may submit written proposed findings to be drawn from the evidence produced; a proposed probable cause(s); and/or, proposed safety recommendations to prevent future accidents to the IIC.

Any examination or testing shall be conducted in such a manner so as not to interfere with or obstruct unnecessarily the transportation services provided by the owner or operator of such vehicle, rolling stock, or track; and shall be conducted in such a manner so as to preserve, to the maximum extent feasible, any evidence relating to the transportation accident, consistent with the needs of the investigation and with the cooperation of such owner or operator. The employee may inspect, at reasonable times, records, files, papers, processes, controls, and facilities relevant to the investigation of such accident. Each inspection shall be commenced and completed promptly and the results of such inspection, examination, or test made available to the parties.

## **G. TRIENNIAL ON-SITE SAFETY AND SECURITY REVIEW**

### **G.1 OBJECTIVE**

This section addresses NCDOT's procedures for the *Triennial Safety and Security Review* to be performed on-site at RFGS. This review will determine the extent to which RFGS is meeting its SSPP and SEPP requirements, the effectiveness of the SSPP and SEPP, and whether the SSPP and SEPP should be updated.

### **G.2 MINIMUM REQUIREMENTS**

As specified in 49 CFR Part 659.29, at least every three (3) years, NCDOT must conduct an onsite review of RFGS's implementation of its SSPP and SEPP. Alternatively, this on-site review may be conducted in an on-going manner over the three-year timeframe.

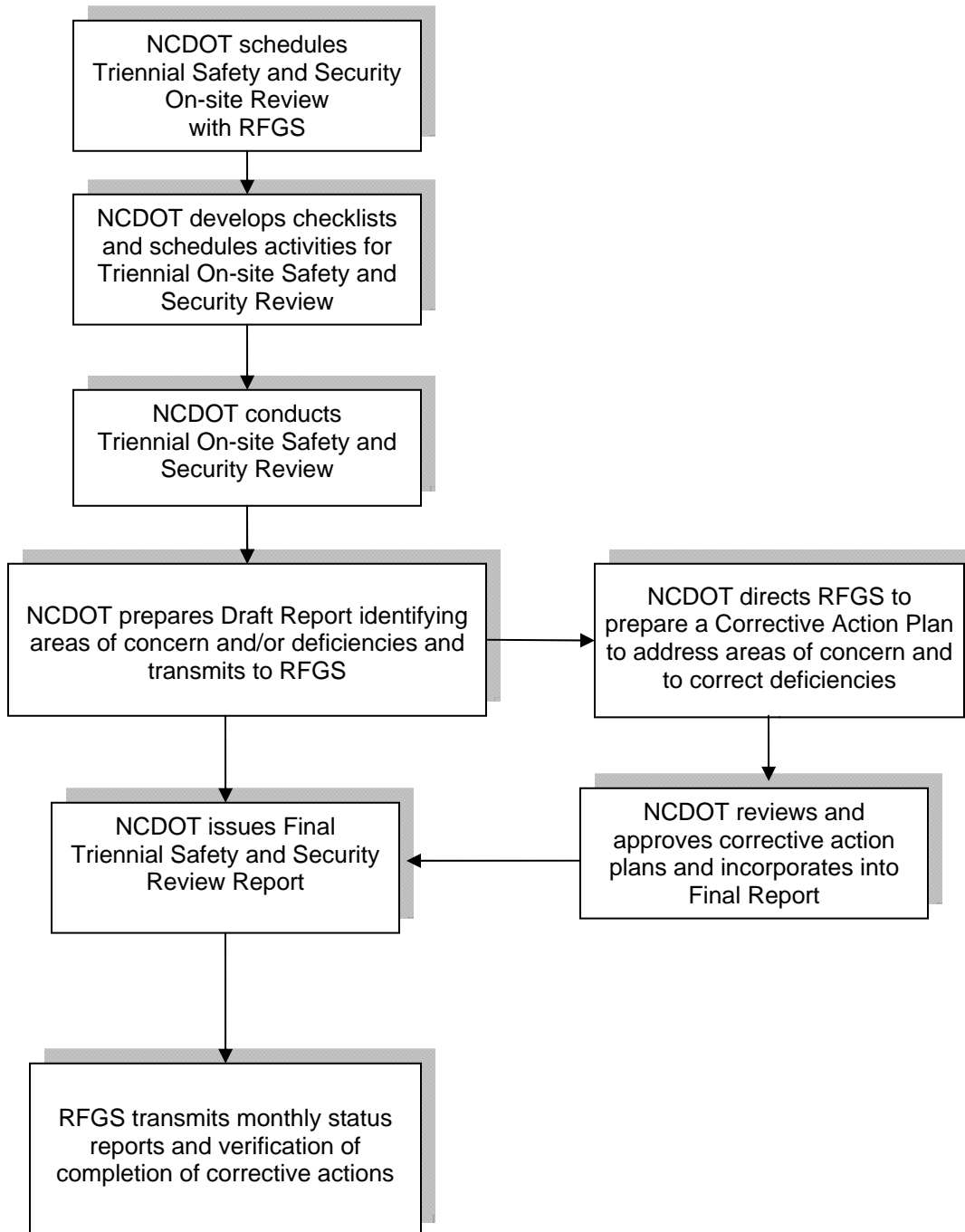
In conducting the triennial review, NCDOT will establish a review team and prepare a schedule, procedures, and a checklist to guide the review process. Criteria will be established through which NCDOT can evaluate RFGS's implementation of its SSPP and SEPP.

As the conclusion of the review, NCDOT will prepare and issue a report containing findings and recommendations resulting from the review, which will analyze the effectiveness of the SSPP and SEPP and whether either should be updated. Corrective actions required as a result of this review will be managed through the process described in Section 8 of this document.

NCDOT will submit its completed report for the triennial safety and security review to FTA as part of its Annual Submission.

Figure 6 shows the Triennial Safety and Security Review process.

**Figure 6. Triennial Safety and Security Review Process**



## **G.3 PROCESS AND PROCEDURE**

### **G.3.1 Pre-Review Preparations**

The NCDOT Manager will determine whether the review will be conducted by NCDOT personnel, a contractor, or a combination of both. If a contractor is to be used, required activities will be added to the milestone schedule to ensure that contractor services are available in time to plan for and conduct the review.

The NCDOT Manager will establish a schedule for conducting the review. This schedule will include milestones for the development of checklists to guide the review, notification of RFGS regarding the review, conducting a pre-review meeting with RFGS, conducting the review, preparation of a draft report, delivery of the draft report to RFGS, issuance of a final report, and the receipt, review, approval and tracking through to implementation of RFGS corrective action plans.

Based on the milestone schedule, the NCDOT Manager will assign a team of NCDOT and/or contractor personnel to conduct the review. Each team shall have a designated Lead Reviewer and supporting Team Members.

Once assigned, the team will begin its work by reviewing in detail the RFGS's SSPP or SEPP, and referenced and supporting procedures and materials. These materials will form the basis of NCDOT's review checklist. As necessary, while preparing this checklist, the NCDOT Manager may contact the RFGS's safety or security point-of-contact and request additional information, procedures, or documentation. These requests may be transmitted via email, letter or fax. For example, the Team may request and review the RFGS's operating rule book, bulletins, orders, instructions, and procedures; maintenance manuals and procedures for vehicles, track and signals; design criteria and project engineering procedures for extensions or modifications; internal safety and security review checklists and reports; the results of the hazard management process; and the status of all corrective action plans.

Utilizing these materials, the team will complete its checklist development. This checklist will identify:

- The safety and security requirements to be reviewed
- The applicable reference documents that establish the acceptance criteria for those requirements
- The method of verification.

Space shall also be provided on the checklists to record the results of the review. Once the checklists are completed, NCDOT will formally notify the RFGS safety and security points-of-contact of the upcoming review, no less than 60 days before the review is scheduled. This notification will occur via letter.

Shortly after notification, NCDOT will schedule a pre-review meeting with RFGS for clarification of any questions and concerns, and coordination of daily schedules with RFGS. Either during this meeting or via email or hard copy mail, the NCDOT Manager will also transmit its review

checklists to the RFGS safety and security points-of-contact. The checklists will be delivered to RFGS at least 30 calendar days prior to the start date of the review.

### **G.3.2 On-Site Review**

To begin the review, the NCDOT team will conduct an entrance meeting with RFGS to resolve any outstanding issues and verify the schedule previously agreed to during the pre-review meeting. The NCDOT team will then conduct the on-site safety and security review using checklists developed during the pre-review period and transmitted to RFGS.

In performing this review, the NCDOT team will administer the checklists as specified, through interviews, document and record reviews, first-hand observations of operations and maintenance activities, spot checks, and visual examinations and measurements. Results will be recorded in the checklists. When the results indicate a deficiency or discrepancy with the acceptance criteria specified in the checklist, it will be noted and a supplemental form may be completed. At the conclusion of the on-site review, the NCDOT team will conduct an exit meeting with RFGS, providing an overview of the major findings, observations and concerns.

### **G.3.3 Draft and Final Triennial Safety and Security Review Reports**

Following the completion of the on-site review, the NCDOT team shall prepare a draft report with the completed review checklists and supplemental forms included as attachments.

This draft report will provide:

- Verification that the SSPP and SEPP are integral parts of RFGS's overall management, engineering, operating, and maintenance practice and/or identification of deficiencies or areas requiring improvement.
- Verification that the SSPP and SEPP are reviewed, at a minimum, on an annual basis in order to ensure that they remain dynamic and viable documents and/or identification of deficiencies or areas requiring improvement.
- Verification that RFGS regularly monitors compliance with the SSPP and SEPP, through a continuous and on-going internal safety and security review process and/or identification of deficiencies or areas requiring improvement.
- Verification that RFGS identifies potentially serious conditions, hazards, threats and vulnerabilities and ensures that methods to eliminate, control, and mitigate them are implemented and/or identification of deficiencies or areas requiring improvement.
- Verification that investigations are conducted following established procedures adopted by RFGS and/or identification of deficiencies or areas requiring improvement.
- Verification that RFGS's emergency preparedness and terrorism preparedness programs are being implemented as specified in the SSPP and SEPP and/or identification of deficiencies or areas requiring improvement.
- Verification that specific activities and tasks identified in the SSPP and SEPP are being carried out as specified in these plans and/or identification of deficiencies or areas requiring improvement.

The draft report will be delivered to the RFGS safety and security points-of-contact via email no later than 30 working days after the conclusion of the on-site review. RFGS will have 30 days to respond to the draft report and to prepare corrective actions as requested by NCDOT in the draft report to address any identified findings, recommendation or concerns. Upon receipt of RFGS's response, NCDOT will make any required revisions to the draft and issue the final report. The final report shall be issued no later than 90 days after the conclusion of the on-site review.

While individual reports may vary, the basic outline used for the NCDOT Triennial Safety and Security Review Report is presented in Figure 7.

NCDOT will transmit the completed triennial on-site safety and security review reports to FTA as part of its Annual Submission.

Corrective action plans submitted by RFGS to address review findings will be reviewed, approved and tracked through to implementation following the process specified in Section H of this document.

**Figure 7. Sample Triennial Safety and Security Review Final Report Outline**

<b>Final Report Outline</b>	
<ol style="list-style-type: none"> <li>1. Executive Summary</li> <li>2. Introduction</li> <li>3. Methodology for Triennial Safety and Security Review</li> <li>4. RFGS Implementation of System Safety Program Plan               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>5. RFGS Implementation of Security and Emergency Preparedness Plan               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>6. Hazard Management Process               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>7. Threat and Vulnerability Resolution Process               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>8. System Safety Function Tasks and Activities               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>9. Security/Police Function Tasks and Activities               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>10. Emergency/Terrorism Preparedness Program               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>11. Employee Training and Rules Compliance Programs               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>12. Internal Safety and Security Review Process               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>13. Safety and Security in Capital Project Planning and Implementation               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>14. Safety-Sensitive Employee Fitness-For-Duty               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>15. Facilities Inspections and Employee/Contractor Safety               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>16. Maintenance Inspections and Employee/Contractor Safety               <ul style="list-style-type: none"> <li>• Description</li> <li>• Current Situation</li> <li>• Evaluation Criteria</li> <li>• Findings and Observations</li> </ul> </li> <li>17. Comments and/or Exceptions Taken by RFGS</li> <li>18. RFGS Corrective Actions Tracking Matrix</li> </ol>

## **H. CORRECTIVE ACTION PLANS**

### **H.1 OBJECTIVES**

This section addresses NCDOT's procedure to ensure that Corrective Action Plans (CAP) are developed and implemented by RFGS to address hazardous conditions identified through accident investigations, the hazard management process, deficiencies in RFGS's implementation of its SSPP or SEPP, or recommendations specified by NCDOT.

### **H.2 MINIMUM REQUIREMENTS**

RFGS must develop CAPs for the following:

- Results from investigations in which identified causal factors are determined by RFGS or NCDOT as requiring corrective actions
- Hazards or deficiencies identified from internal and external safety and security reviews performed by RFGS or NCDOT or from the hazard management process.

Each CAP shall identify:

- A hazard or deficiency;
- Planned activities or actions to resolve that deficiency or hazard;
- RFGS department(s) and individual(s) responsible for implementing corrective actions; and
- Scheduled completion dates for implementation.

The CAP shall be submitted to NCDOT for review and approval. In the event that NCDOT and RFGS dispute the need, findings, or enforcement of a CAP, NCDOT will allow RFGS 30 calendar days to submit its case. NCDOT will then issue final direction to RFGS regarding the CAP.

In the event that the NTSB conducts an investigation, RFGS and NCDOT shall review the NTSB findings and recommendations to determine whether or not to develop a corrective action. If a CAP is required either by the NTSB or NCDOT, RFGS shall develop it.

RFGS shall develop and maintain a Corrective Action Monitoring Log, which identifies all CAPs approved by NCDOT and presents their status. This log shall be submitted quarterly to the NCDOT Manager in electronic form via email or in hard copy via mail or fax, or at the quarterly Rail Safety Oversight meeting. As CAPs are closed out, RFGS must submit verification that the corrective action(s) has been implemented as described in the CAP or that a proposed alternative action(s) has been implemented. This written verification should be submitted with the monthly Corrective Action Plan Tracking Log in electronic or hard copy format. The verification should be in unalterable format electronically, and should bear a scanned or electronic signature. In the monthly log, the RFGS must also inform NCDOT concerning any alternative actions for implementing a CAP.

### **H.3 NOTIFICATION**

RFGS shall develop a CAP with the intent of addressing the hazard or deficiency identified as a result of an accident investigation, the hazard management process, or the internal and external safety and security reviews performed by RFGS or NCDOT. RFGS shall submit the CAP to NCDOT for approval within 30 calendar days after either RFGS or NCDOT has identified the need for a corrective action plan. Depending on the complexity of the issue requiring corrective action, and at NCDOT's discretion, additional time may be granted to RFGS to prepare the corrective action plan. All corrective action plans must be submitted to NCDOT by the RFGS Safety function. NCDOT recognizes that the Safety function does not develop all CAPs; however, when an RFGS department provides a CAP for submittal to NCDOT, that CAP must include with it written verification of the Safety function's review and concurrence.

### **H.4 CORRECTIVE ACTION PLAN REVIEW AND APPROVAL**

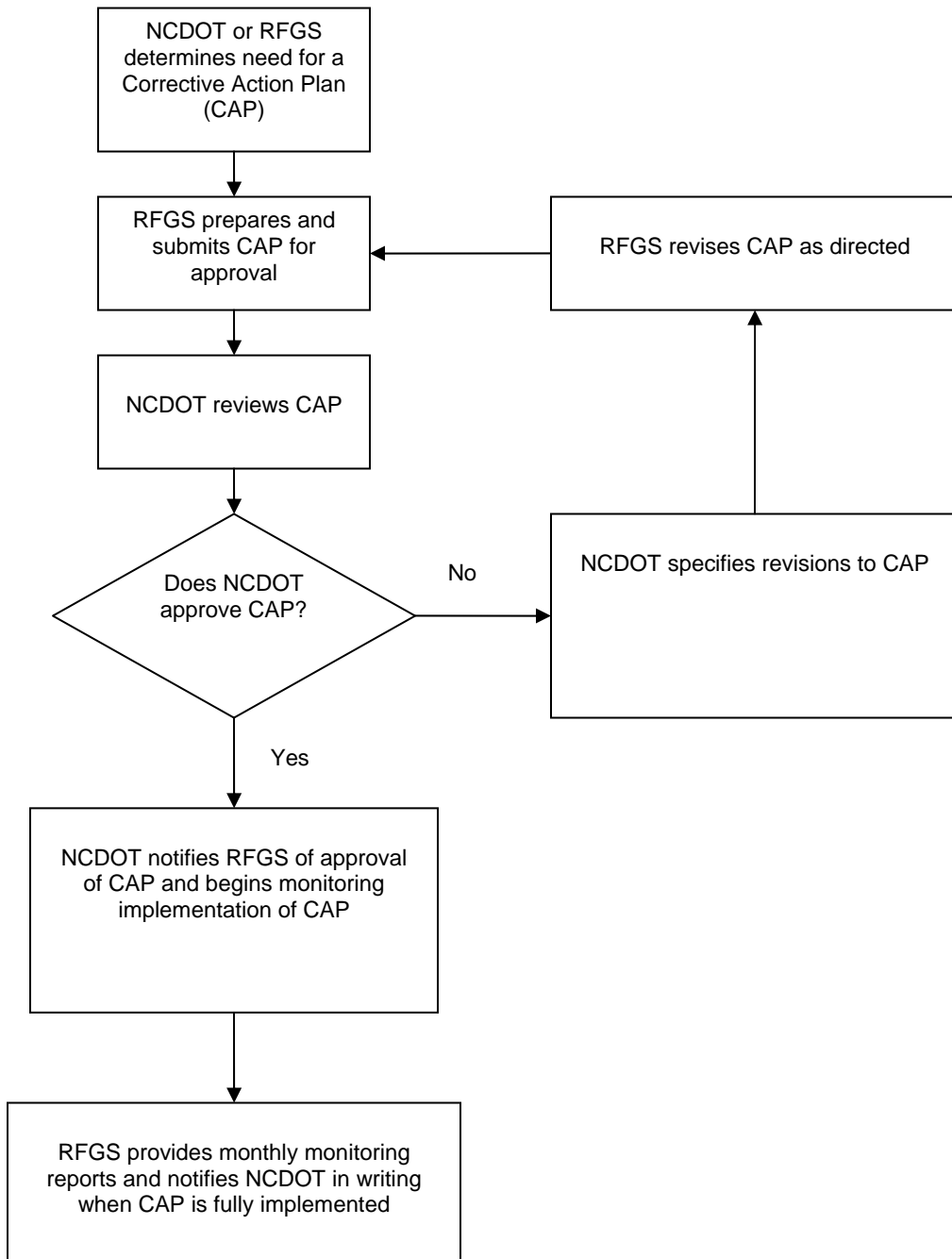
NCDOT will notify the RFGS of its approval or rejection of a CAP within 15 calendar days of receiving the CAP. In the event NCDOT rejects a CAP, NCDOT will state its reasons in writing and recommend revisions. RFGS shall submit a revised CAP to NCDOT no later than 15 calendar days following the rejection. NCDOT approval is not necessary for short-term measures required to immediately mitigate hazardous conditions; however, these measures shall not replace the need for a long-term corrective action plan. NCDOT will provide its support for such short-term measures, or outline its concerns regarding them, in its written approval or disapproval of the formal CAP.

### **H.5 MONITORING AND TRACKING**

The RFGS shall maintain a Corrective Action Monitoring Log and provide NCDOT with quarterly corrective action implementation updates. These updates will be provided at the quarterly Rail Safety Oversight meetings and should be reflected in the Log. RFGS shall verify to NCDOT in written form when a corrective action has been fully implemented. The RFGS corrective action is then subject to independent NCDOT verification.

Figure 8 identifies the CAP process.

**Figure 8. CAP Process**



# I. REPORTING TO FTA

## I.1 OBJECTIVE

This section addresses NCDOT's procedures for making initial, annual, and periodic submissions to FTA's Office of Safety and Security, in compliance with 49 CFR Part 659.39 and Part 659.43.

## I.2 REPORTING REQUIREMENTS TO FTA

**Initial submission.** The following information, contained in NCDOT's initial submission to the FTA, must be updated as necessary:

- The name and address of the NCDOT State Safety Oversight Manager
- The names and addresses of the transit agencies subject to DOT jurisdiction under 49 CFR Part 659
- NCDOT's program standard
- NCDOT's certification that the SSPP and the SEPP have been developed, reviewed, and approved.

In the event that the state should ever determine that oversight authority should be transferred to another agency of the state, NCDOT will work with this agency to ensure that a new Initial Submission is delivered to FTA within 30 days of the determination to make the change. NCDOT will also work with this agency to ensure that at no point are the RFGSs affected by 49 CFR Part 659 left without a duly authorized oversight agency.

**Annual submission.** Before March 15 of each year, NCDOT must submit the following to FTA:

- A publicly available annual report summarizing its oversight activities for the preceding twelve months, including a description of the causal factors of investigated accidents, status of corrective actions, updates and modifications to rail transit agency program documentation, and the level of effort used by the oversight agency to carry out its oversight activities.
- A report documenting and tracking findings from triennial safety review activities and whether a triennial safety review has been completed since the last annual report was submitted.
- Program standard and supporting procedures that have changed during the preceding year.
- Certification that any changes or modifications to the rail transit agency system safety program plan or security and emergency preparedness plan have been reviewed and approved by the oversight agency.

**Annual Certification.** With its Annual Submission, NCDOT must certify to the FTA that it has complied with the requirements of 49 CFR Part 659. NCDOT will submit this certification electronically to FTA using a reporting system specified by FTA. NCDOT will maintain a signed copy of each annual certification to FTA, subject to audit by FTA.

**Periodic submissions.** Status reports of accidents/incidents, hazardous conditions, and CAPs or other program information must be forwarded to the FTA upon request.

NCDOT will ensure that all submissions to FTA are submitted electronically using the reporting system specified by FTA.

## APPENDIX A – SUMMARY CONFORMANCE CHECKLIST – SYSTEM SAFETY PROGRAM PLANS

RAIL FIXED GUIDEWAY SYSTEMS – SUMMARY CONFORMANCE CHECKLIST FOR SYSTEM SAFETY PROGRAM PLANS (SSPP)					
RAIL FIXED GUIDEWAY SYSTEM: _____  _____  REV. NO: _____  NO. _____ ITEM _____	A C C E P T A B L E	U N A C C E P T A B L E	PLAN TITLE: _____  _____  DATE: _____  NO. _____ ITEM _____	A C C E P T A B L E	U N A C C E P T A B L E
1	Policy Statement. Description and Authority Creating the Rail Fixed Guideway System		9	Security	
2	Describe Legal Responsibilities and Jurisdictions for Service, Extensions and Improvements. Description of Purpose for the System Safety Program Plan		10	Configuration Management	
3	Clearly Stated Goals for the System Safety Program Plan		11	Procurement	
4	Identifiable and Attainable Objectives		12	Interdepartmental / Interagency Coordination	
5	System Description / Organizational Structure Safety Sensitive employee certification, re-certification and de-certification.		13	Employee and Contractor Safety Program	
6	System Safety Program Plan - Control and Update Procedures		14	Internal Safety Audit Process	
7	Hazard Identification / Resolution Process		15	Drug and Alcohol Abuse Program	
8	Accident / Unacceptable Hazardous Condition Reporting & Investigation				
THE SYSTEM SAFETY PLAN IS: _____ ACCEPTABLE _____ UNACCEPTABLE, REVISE AND RESUBMIT					
REVIEWED BY: _____ DATE: _____  APPROVED BY: _____ DATE: _____  <b>Conformance Checklist Form</b> (For NCDOT Use Only)					

**Conformance Checklist Form – SSPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SYSTEM SAFETY PROGRAM PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SSPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE REF.	COMMENTS
			Y	N		
1	Policy Statement. Description and Authority Creating the Transit Agency	a. Approval of the SSPP by the Highest Level of Management? Regular Progress reviews on a Periodic Scheduled Basis by Top Management to Assure That the Safety and Security Program Stays Current With Changing Conditions? b. Preparation and Maintenance of the SSPP by a Specific Department or Person for Both Safety and Security? c. A Statement Emphasizing the Importance of Safety and Security in all Aspects of the Transit Agency's Operations?				
2	Describe Legal Responsibilities and Jurisdictions for Service, Extensions, and Improvements. Description of Purpose for the System Safety Program Plan	a. Description of the Responsibilities and Extent of Powers for Both Safety and Security? b. An Explanation of the major sources of funding and any encumbered rules, regulations, terms or conditions that may have impacts on security. c. An Explanation of the Purpose of the Plan, Relating to Both Safety and Security? d. How The Plan Complies With Policy Directives? e. A Description of the Shared Responsibilities for Safety by the Operations, Maintenance, and Engineering Departments? f. Assignment of Authority for Plan Implementation by Operations, Maintenance, and Engineering Departments?				
3	Clearly Stated Goals for the System Safety Program Plan	a. A Listing of System-specific Safety and Security Goals That Are Long Term, Meaningful, and Realizable?				
4	Identifiable and Attainable Objectives	a. A Statement of Objectives That Are Quantifiable and Achievable Through the Implementation of Policies and Procedures? b. A Statement That Top Management Establishes Safety and Security Policies? c. A Statement That Addresses the Personal Security of Passengers and Employees? d. An Information System that Logs all Security Breaches and contains appropriate analysis and decisions to effectuate the decision making process effectively.				

**Conformance Checklist Form – SSPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SYSTEM SAFETY PROGRAM PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SSPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE	COMMENTS
			Y	N	REF.	
5	System Description / Organizational Structure	a. A System Description? b. Organization Charts Showing the Lines of Authority and Responsibility for Operations, Maintenance, and Engineering as They Relate to System Safety? Security? c. A Written Description or Diagram Showing the Lines of Communication Between the Transit Agency and the State DOT Staff for Safety and Security Related Matters Affecting Operations, Maintenance, Engineering, and Construction? d. A Description or Tabulation of Major Facilities that is included in the Security Program along with a description of the security devices and Procedures that are used to protect those facilities? e. A Description of Current Conditions in Terms of Crime Rates and Security Breaches by Locations? f. A Summary of Current Efforts to Maximize the Security of Passengers and Employees in Terms of Both Proactive Programs and Emergency Response Measures? g. The Identification by Title and Description of Each of the Implementing Procedures That are Included in the Security Portion of the SSPP; Including the Procedures for Security Program Planning, Proactive Measures, Emergency Response Measures, and Training? h. The Identification of Specific Departments and Persons in Charge of the Preparation, Modification and Implementation of each of the Procedures Identified in (b.) above.				
6	System Safety Program Plan Control and Update Procedures	a. A Maximum Time Interval Between Documented Plan Reviews to Determine Whether or Not the Plan Needs to Be Revised to Meet Changed Conditions and Requirements? b. A Description of the Mechanism by Which Safety Hazards and Security Incidents Are Identified and Documented for Operations, Maintenance, and Engineering? c. A Statement That the State Dot Staff Will Be Notified of Plan Changes? d. Identification of Who is responsible for Preparation and Maintenance of the Safety and Security portion of the SSPP; Including Periodic Reviews and Updates?				

**Conformance Checklist Form – SSPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SYSTEM SAFETY PROGRAM PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SSPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE REF.	COMMENTS
			Y	N		
7	Hazard Identification / Resolution Process	a. A Description of the Mechanism by Which Hazards Are Identified and Documented for Operations, Maintenance, and Engineering?  b. A Description of the Process by Which Identified Hazards Are Categorized, Analyzed, and Resolved for Operations, Maintenance, and Engineering, (Includes Hazard Severity, Hazard Probability and Use of the Hazard Resolution Matrix)?				
8	Accident / Incident Reporting	a. Criteria for Determining What Accidents/incidents Require Investigation, and Who Is Responsible to Conduct Specific Investigations?  b. A Description of the Procedures for Performing of Investigations; Including the Reporting of Findings, Conclusions Reached, Corrective Action, Recommendations, and Follow up to Verify Corrective Action Implementation?  c. State DOT Accident and Unacceptable Hazardous Conditions Reporting and Investigation Requirements as Specifically Contained in the State Safety Oversight Standards: c.1. Notification to State DOT Staff of Unacceptable Hazardous Conditions and Reportable Accidents. c.2. Prior Notice to Allow State DOT Staff Participation in Post Accident / Incident Inspections, Examinations, and Testing. c.3. Submittal of Written Accident / Incident Investigation Reports to State Dot Staff for Review and Approval. Reports to Contain the Most Probable Cause, Other Contributing Causes, Corrective Action Plans, and Schedule for Implementing Corrective Action.  d. Safety-sensitive employee certification, re-certification, and de-certification program(s) including criteria for automatic de-certification.				

**Conformance Checklist Form – SSPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SYSTEM SAFETY PROGRAM PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SSPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE REF.	COMMENTS
			Y	N		
9	Security	a. A Description of the Security Plan for the Protection of Persons and Properties? b. The Functions and Responsibilities of Departments and Personnel? c. Recognition of State DOT Staff's Authority/Responsibility for Overseeing the Security Program by Reviewing Records, Witnessing Inspections, Participating in Training Sessions, Observing Work Practices and Auditing Total Program Implementation?				
10	Configuration Management	a. A Description of the Configuration Management Control Process; Including the Authority to Make Configuration Changes, and Assurances Necessary for All Involved Departments to Be Formally Notified? b. Configuration Controls to Ensure Modifications are Properly Evaluated by Management Before Adoption, Made in Writing, and Distributed to all With a Need to Know Through Compliance by Formal Configuration Change Control Procedures?				
11	Procurement	a. Safety Measures / Controls for Procurement of Hazardous Materials? b. Receiving Inspection of Procured Materials and Equipment to Prevent the Inadvertent Installation of Defective Items?				

**Conformance Checklist Form – SSPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SYSTEM SAFETY PROGRAM PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SSPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE	COMMENTS
			Y	N	REF.	
12	Interdepartmental / Interagency Coordination	a. A Description of Interdepartmental/ Interagency Coordination for the Exchange of Safety and Security Related Information?  b. Coordination of Communications with the State DOT Staff to Keep Them Informed of Significant Safety and/or Security Issues on a Timely Basis? c. Discussion of how Rail Fixed Guideway Systems Person in Charge of Security Interacts With the Systems Own Security Forces, Local Municipal Police Departments and Other Law Enforcement Agencies?				
13	Employee and Contractor Safety Program	a. An Employee and Contractor Safety Program Incorporating the Applicable State and Federal OSHA Requirements?				
14	Internal Safety Audit Process	a. Planned and Scheduled Internal Safety Audits to Be Performed by the Transit Agency to Evaluate Compliance and Measure the Effectiveness of Its SSPP for both Safety and Security? b. The Use of Written Checklists? c. Auditors That Are Independent from the First Line of Supervision Responsible for the Activity Being Audited? d. Documenting the Audit Findings in Written Reports That Include an Evaluation of the Adequacy and Effectiveness of the SSPP? e. A Twelve Month Annual Audit Report Issued Prior to the 1st of December Each Year, Summarizing the Results of the Individual Audits, Including a Summary of Required Corrective Action, If Any, and Provisions for Follow-up to Ensure Timely Implementation? This Report Submitted to State DOT Staff for Review?				
15	Drug and Alcohol Abuse Program	a. A Drug and Alcohol Abuse Program Incorporating the Federal DOT Requirements?				

# APPENDIX B – SUMMARY CONFORMANCE CHECKLIST – SECURITY AND EMERGENCY PREPAREDNESS PLANS

RAIL FIXED GUIDEWAY SYSTEMS – SUMMARY CONFORMANCE CHECKLIST FOR SECURITY AND EMERGENCY PREPAREDNESS PLANS (SEPP)							
RAIL FIXED GUIDEWAY SYSTEM: _____  _____  REV. NO: _____  NO. _____ ITEM _____	A C C E P T A B L E	U N A C C E P T A B L E	PLAN TITLE: _____  _____  DATE: _____  NO. _____ ITEM _____	A C C E P T A B L E	U N A C C E P T A B L E		
1	Security and Emergency Preparedness Policy Statement, Description, and Authority Establishing the Security and Emergency Preparedness Program			9	Management of the Security and Emergency Preparedness Plan		
2	Describe Legal Responsibilities and Jurisdictions for Service, Extensions and Improvements. Description of Purpose for the Security and Emergency Preparedness Plan			10	Security and Emergency Preparedness Plan Activities – Planning, Organization, Equipment, Training, and Procedures		
3	Clearly Stated Goals for the Security and Emergency Preparedness Plan			11	Emergency Exercises and Evaluation		
4	Identifiable and Attainable Objectives			12	Interdepartmental/Interagency Coordination and Communications		
5	System Description/Organizational Structure Security-sensitive Employee Certification, Re-certification and De-certification.			13	Employee and Contractor Safety Program		
6	Security and Emergency Preparedness Plan - Control and Update Procedures			14	Internal Security Audit/Review Process		
7	Threat & Vulnerability Identification, Assessment, and Resolution Process			15	Security and Emergency Preparedness Plan Review/Revision Process		
8	Security Incident Reporting & Investigation			16	Procurement – Security Processes		
<b>THE SECURITY AND EMERGENCY PREPAREDNESS PLAN IS:</b> _____ <b>ACCEPTABLE</b> _____ <b>UNACCEPTABLE, REVISE AND RESUBMIT</b>							
REVIEWED BY: _____ DATE: _____  APPROVED BY: _____ DATE: _____							
<b>Conformance Checklist Form</b> (For NCDOT Use Only)							

**Conformance Checklist Form – SEPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SECURITY AND EMERGENCY PREPAREDNESS PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SEPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE REF.	COMMENTS
			Y	N		
1	Security and Emergency Preparedness Policy Statement, Description, and Authority Establishing the Security and Emergency Preparedness Program	a. Approval of the SEPP by the Highest Level of Management? Regular Progress reviews on a Periodic Scheduled Basis by Top Management to Assure That the Security Program Stays Current With Changing Conditions? b. Preparation and Maintenance of the SEPP by a Specific Department or Person for Security? c. A Statement Emphasizing the Importance of Security in all Aspects of the Transit Agency's Operations?				
2	Describe Legal Responsibilities and Jurisdictions for Service, Extensions, and Improvements. Description of Purpose for the Security and Emergency Preparedness Plan	a. A Statement of Objectives That Are Quantifiable and Achievable Through the Implementation of Policies and Procedures? b. A Statement That Top Management Establishes Security Policies? c. A Statement That Addresses the Personal Security of Passengers and Employees? d. Description of the Responsibilities and Extent of Powers for Security e. An Explanation of the Major Sources of Funding and Any Encumbered Rules, Regulations, Terms or Conditions That May Have Impacts on Security. f. An Explanation of the Purpose of the Plan, Relating to Security? g. How the Plan Complies with Policy Directives? h. A Description of the Shared Responsibilities for Security by the Operations, Maintenance, and Engineering Departments?				
3	Clearly Stated Goals for the Security and Emergency Preparedness Plan	a. A Statement of Security Goals Within the Transit Agency Over a Reasonable Period of Operations?				
4	Identifiable and Attainable Objectives	a. An identification of Objectives That Are Quantifiable and Achievable Through the Implementation of Policies and Procedures?				

**Conformance Checklist Form – SEPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SECURITY AND EMERGENCY PREPAREDNESS PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SEPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE	COMMENTS
			Y	N	REF.	
5	System Description/ Organizational Structure Security- Sensitive Employee Certification, Re-Certification, and De- Certification	a. A System Description? b. Organization Charts Showing the Lines of Authority and Responsibility for Security? c. A Categorization or Breakdown of Employees and Contractors in Security-Sensitive Positions with Relevant Statuses of Their Certification?				
6	Security and Emergency Preparedness Plan Control and Update Procedures	a. A Maximum Time Interval Between Documented Plan Reviews to Determine Whether or Not the Plan Needs to Be Revised to Meet Changed Conditions and Requirements? b. A Description of the Mechanism by Which Security Issues and Incidents Are Identified with the Transit Agency's Security Function for Action? c. A Statement That the State DOT SOA Staff Will Be Notified of Plan Changes? d. Identification of Who is Responsible for Preparation and Maintenance of the SEPP; Including Periodic Reviews and Updates?				
7	Threat & Vulnerability Identification, Assessment, and Resolution Process	a. Provide a Description of the Transit Agency's Methods and Activities to Identify Security and Terrorism Related Threats and Vulnerabilities? b. Identify the Assignment of These Threats and Vulnerabilities to Responsible Security Parties for Resolution? c. Assess the Best Methods by Which to Minimize or Eliminate These Identified Threats and Vulnerabilities? d. Identify How Near and Long-Term Security Strategies Are Developed to Enhance the Security of the Transit Agency				

**Conformance Checklist Form – SEPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SECURITY AND EMERGENCY PREPAREDNESS PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SEPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE REF.	COMMENTS
			Y	N		
8	Security Incident Reporting & Investigation	a. A Description of How Security Incidents are Reported and Investigated? b. A Description of the Security Parties in Charge of the Investigation? c. The Formation of Proactive and Security Breach Committees to Address Security Incidents Reported and Investigated? d. A Description of How Additional Law Enforcement Agencies Participate or May Participate in Security Incident Investigations?				
9	Management of the Security and Emergency Preparedness Program	a. Is the Individual or Party Responsible for Managing the SEPP identified? b. Is the Method by Which Security Information is Communicated Within the Transit Agency Identified? c. Is the Development with Outside Agencies Which Contribute to the Security of Transit Agency Identified? d. Is the Mechanism for Bringing Security Concerns to the Transit Agency Security Personnel Identified? e. Are the Security Concerns of the Transit Agency's Employees Actively Solicited? f. Is the SOA made aware of changes to the SEPP?				

**Conformance Checklist Form – SEPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SECURITY AND EMERGENCY PREPAREDNESS PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SEPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE REF.	COMMENTS
			Y	N		
10	SEPP Program Activities – Planning, Organization, Equipment, Training, and Procedures	a. Provide a Description of the Activities and Programs in Place at the Transit Agency to Support Planning for System Security and Emergency Preparedness? b. Provide a Description of the Coordination with External Agencies on Matters of Security? c. Provide a Description of Equipment Used to Support Implementation of the SEPP? d. Describe the SEPP related Training and Procedures to Ensure Employee Proficiency?				
11	Emergency Exercises and Evacuation	a. Describe the System Security-Related Activities to Ensure the Conduct of Emergency Exercises and Evaluation?				
12	Interdepartmental/Interagency Coordination and Communications	a. Is the Integration of the SEPP with Activities and Tasks of Internal and External Departments/Agencies on Security Matters Identified? b. Is the Coordination With the SOA Clearly Identified on Matters Relevant to SEPP Oversight?				
13	Employee and Contractor Security Program	a. Provide a Description of the Employee and Contractor Security Requirements, If Applicable? b. Provide a Description of Relevant Security Awareness Training for Employees and Contractors?				

**Conformance Checklist Form – SEPP (continued)**

RAIL FIXED GUIDEWAY SYSTEMS - CONFORMANCE CHECKLIST FOR SECURITY AND EMERGENCY PREPAREDNESS PLANS						
TRANSIT AGENCY: _____						
REVIEWER: _____					DATE: _____	
NO.	CHECKLIST	SEPP REQUIREMENTS DOES THE PLAN CONTAIN OR PROVIDE FOR:	INCLUDED		PAGE	COMMENTS
			Y	N	REF.	
14	Internal Security Audit/Review Process	a. Planned and Scheduled Internal Security Audits To Be Performed by the Transit Agency to Evaluate Compliance and Measure the Effectiveness of Its SEPP on Security? b. Use of Written Checklists? c. Auditors That Are Independent from the First Line of Supervision Responsible for the Activity Being Audited? d. Documenting the Audit Findings in Written Reports That Include an Evaluation of the Adequacy and Effectiveness of the SEPP? e. A Twelve-Month Annual Audit Report Issued Prior to the 1 <sup>st</sup> of August Each Year, Summarizing the Results of the Individual Audits, Including a Summary of Required Corrective Action, If Any, and Provisions for Follow-up To Ensure Timely Implementation? This Report Submitted to State DOT Staff for Review?				
15	SEPP Review/Revision Process	a. Provide a Description of the Process To Initiate Revisions to SEPP Response Procedures? b. Identify the Person or Party Responsible for Conducting the Review of the SEPP and Revising the Plan as Necessary? c. Describe the Process Used to Review and Revise the SEPP Prior to Submission to the SOA for Review and Approval? d. Identify the On-Site Review of the Transit Agency's Implementation of the SEPP, by the SOA? e. Methods By Which Updated Plans and Procedures Are Disseminated Within the Transit Agency?				
16	Procurement – Security Processes	a. Security Measures/Controls for Procurement of Security-Sensitive Products and Materials? b. Receiving Inspection of Procured Materials and Equipment To Prevent Receipt of Hazardous Substances/Materials or Products for Use With Malicious Intent?				

## APPENDIX C – NOTIFICATION OF ACCIDENT

### NOTIFICATION OF ACCIDENT/INCIDENT AND UNACCEPTABLE HAZARDOUS CONDITIONS

DATE OF REPORT: \_\_\_\_\_ TIME OF REPORT: \_\_\_\_\_ AM PM

REPORTED BY: \_\_\_\_\_ FAX/E-MAIL/OTHER: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ CONTACT PERSON: \_\_\_\_\_

VEHICLE No.: \_\_\_\_\_ TRAVEL DIRECTION/LINE: \_\_\_\_\_

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TRANSIT AGENCY/DBOM CONTRACTOR: \_\_\_\_\_

DATE OF ACCIDENT: \_\_\_\_\_ TIME OF ACCIDENT: \_\_\_\_\_ AM PM

LOCATION [Nearest Station/Stop Location-City (Borough, Twp., etc.)]: \_\_\_\_\_

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#### TYPE OF ACCIDENT/INCIDENT:

I FATALITY \_\_\_\_\_ II INJURY [Evacuation to Hospital] \_\_\_\_\_

III EMERGENCY EVACUATION \_\_\_\_\_ IV MINOR INJURY/ \_\_\_\_\_  
FROM TRANSIT VEHICLE PROPERTY DAMAGE \_\_\_\_\_

V OTHER \_\_\_\_\_ VI PRELIMINARY ESTIMATE \$ \_\_\_\_\_  
OF DAMAGE

[Check mark or circle those that apply and insert the number involved.]

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DESCRIPTION OF INCIDENT: (Collision, Derailment, Fire): \_\_\_\_\_

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## APPENDIX D – INTERNAL SAFETY AND SECURITY PROGRAM REVIEW CHECKLIST

<b>INTERNAL SAFETY AND SECURITY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>				<b>PAGE</b>	<b>OF</b>
								<b>DATES OF AUDIT:</b>	
<b>SECURITY AND EMERGENCY PREPAREDNESS PLAN (SEPP) SECTION NUMBER:</b>								<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>									
ITEM NO.	NCDOT STD. PARA. NO.	SEPP PARA. NO	AUDITABLE ENTITY	DEPARTMENT(S)	ITEM DESCRIPTION	A	I	U	REMARKS
<b>COLUMN DEFINITIONS:</b> <ul style="list-style-type: none"> <li>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</li> <li>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</li> <li>U: UNABLE TO REVIEW (SEE REASON/REFERENCE IN "REMARKS" COLUMN)</li> </ul>									

## APPENDIX E – INTERNAL SAFETY AND SECURITY PROGRAM REVIEW SUPPLEMENTAL FORM

SYSTEM SAFETY PROGRAM REVIEW SUPPLEMENTAL FORM	PAGE ____ OF ____ DATE: _____ THROUGH _____
<p><b>AREA OF CONCERN NO:</b></p> <p><b>DESCRIPTION OF CONDITION:</b></p>	<p><b>STATUS:</b></p> <p><input type="checkbox"/> OPEN</p> <p><input type="checkbox"/> ACCEPTED WITH CONDITIONS</p> <p><input type="checkbox"/> AWAITING SUPPORTING DOCUMENTATION</p> <p><input type="checkbox"/> UNACCEPTABLE; CORRECTIVE ACTION NEEDED</p> <p><input type="checkbox"/> UNABLE TO AUDIT</p>
<p><b>FIXED GUIDEWAY SYSTEM RESPONSE:</b></p>	

## APPENDIX F – SAFETY REVIEW CHECKLIST

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>			<b>AUDITOR(S):</b>				PAGE 1 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
1		SSPP	Safety/Trans. Police	Does the SSPP Meet the State Safety Oversight Standards?				
2		Safety Policy	Safety/Mgmt	Has the SSPP Been Approved By Top Management For Implementation?				
3		Authority	Safety	Does the SSPP Identify the Agency's Authority Regarding Safety & Security (Statutes, Legislation, Etc.)?				
4		Precepts & Purpose	Safety	Does the SSPP Identify the Precepts and of the Agency & the Purpose?				
5		Goals & Objectives	Safety	Are Measurable Goals and Objectives for the Agency's SSPP Established?				
6		Safety Policy	Safety	Has the SSPP Been Distributed to All Departments for Implementation? Management                      Operations                      Finance/Admin. Maintenance                      Control Center                      Training Public Affairs                      Transit Police                      Engineering				
7		Safety Policy	All	Is There Clear Identification of Management Roles in Safety? Management                      Operations                      Finance/Admin. Maintenance                      Control Center                      Training Public Affairs                      Transit Police                      Engineering				
<b>COLUMN DEFINITIONS:</b>					<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>			

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 2 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
8		Inspection & Test	Operations & Maintenance	Are There Daily Inspections and Tests for Operations for: Signaling System                      Emergency Systems Emergency Trip Stations              Fire Prot./Support Equip.?  Control Center Status Alarms for: Fire    Signals    Traction Power    Interlockings?  Maintenance Inspections/Tests for: Track   Ballast   Ties/Fasteners    Right-Of-Way?				
10		SSPP Rev. & Update	Safety	Is There Evidence That the SSPP Is Being Periodically Reviewed and Updated?				
11		Organization Structure	Safety	Does the SSPP Identify Responsibility for Administering the Safety Program?				
12		Maintenance, Inspection & Tests	Safety	Review Safety Department: Fire Protection/ Suppression Inspections Operations Inspections and Audits Accidents/Unacceptable Hazard Condition Investigations				
13		Organization Structure	ALL	Review Safety Responsibilities of Departments: Management                      Operations                      Maintenance Training                              Safety                              Public Affairs Finance/Admin.                      Operations Control Center				
14		Maintenance, Inspection & Tests	Maintenance	Review Quality Assurance Audit & Inspection Documents & Procedures				
<b>COLUMN DEFINITIONS:</b> <b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY Program Plan(s)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>								

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 3 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
15		Maintenance Inspection & Tests	Maintenance	Review Preventive Maintenance Schedules and Performance Documentation for: Vehicles                      Traction Power                      Systems Support Services                      Civil( Track & Structures) Fire Protection/Suppression (General Maintenance)				
16		Organization Structure	Safety	Review Documentation of System Safety Dept. Staff Qualifications and Performance of Responsibilities				
17		Operations/Maintenance Training	Safety/Training	Review Documentation of Operationally-Related Safety Training				
18		Operations/Maintenance Training	Training	Review Training Program Curriculum for Emphasis on Safety				
19		Emergency Response Planning	Safety/Operations	Review Emergency Preparedness Planning Procedures				
20		Internal Audit Process	Safety/Training	Review Documentation of Process and Implementation of Standard Operating Procedures, Rules, Maintenance Procedures, and Verify Staff Compliance				
21		Public Awareness Program	Public Affairs	Review Public Affairs – Public Awareness Programs				
<b>COLUMN DEFINITIONS:</b>				<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN “REMARKS” COLUMN)</b>				

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 4 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
22		Configuration Control	Safety	Review Documentation of Evidence That Safety Reviews New Systems & Equipment				
23		Configuration Control	Safety	Review Configuration Management and Configuration Control Documentation for Safety Impacts				
24		Purpose	Operations, Safety, Training, Maintenance	Interview And Determine That Each Department Is Cognizant of Their Responsibility Toward Safety; Discuss Responsibilities Assigned To: Operations    Maintenance    Training    Safety				
25		Hazard Identification/Resolution Process	Operations, Maintenance, Safety, Training, Engineering	Is There a Process for Identifying Hazards, Performing Hazard Analysis, Determining Criticality, and a Resolution Process? Operations    Maintenance    Training Engineering    Safety				
26		Configuration Management	Operations, Maintenance, Safety, Engineering	Is There a Process for Review of Specifications To Assure That Operational Considerations Toward Designing To Minimize Hazards, Incorporation of Safety Devices, or Special Procedures? Operations    Maintenance    Training    Safety				
<b>COLUMN DEFINITIONS:</b>				<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>				

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>			<b>AUDITOR(S):</b>				PAGE 5 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
27		Procurement	Operations, Maintenance, Safety, Engineering	Is Compatibility, "Fail-Safe" Design, Hazard Reduction, Ease Of Maintenance, and Danger Warnings Considered During Procurement of Equipment and Facilities?				
28		System Modification Review & Approval Process	Procurement, Maintenance, Safety, Engineering	Are Safety Considerations Included in Design Reviews for Replacement Parts, New Services Procured, Modifications, or Rehabilitation of Equipment and Facilities? Procurement                      Engineering Safety                                      Maintenance				
29		Maintenance, Inspection & Tests	Engineering, Procurement, Safety, Maintenance	Are Acceptance Tests and Inspections for All Equipment and Facilities Performed Prior To Use in Operations?				
30		Configuration Management	Engineering, Procurement, Maintenance	Are There Requirements for Controlling and Managing the Configuration of Equipment and Facilities? Are Support Documents and Procedures Kept Current? Is The Safety Department a Participant In The Modification Effort?				
31		Hazard Identification/ Resolution Process	Operations, Maintenance	Upon Receipt of an Accident or Hazardous Condition Report Does Operations Attempt To Determine Causes and Take Corrective Action? Does Maintenance Attempt To Determine Causes and Take Corrective Action?				
<b>COLUMN DEFINITIONS:</b>					<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>			



**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 7 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
38		Rules and Procedures Review	Operations, Maintenance, Safety	Have All Affected Departments Reviewed the Rulebook? Are Special Orders and/or General Orders Reviewed By Affected Departments? Operations      Maintenance      Safety				
40			Operations, Maintenance, Safety	Is There a Process for Facilitating Revisions to the Rulebook?				
41		Internal Audit Process	Safety	Does the Safety Department Conduct Periodic Reviews of Operations and Maintenance Activities To Identify Equipment, Procedural, or Training Changes That Are Required To Eliminate Safety Deficiencies and Hazards?				
42		Internal Audit Process	Operations, Maintenance, Safety	Is There Evidence That All Staff Are Following Established Rules and Procedures in the: Operations Dept?    Maintenance Dept.?    Safety Dept?				
43		Emergency Response Planning	Operations	Is There a Formal Process for Planning and Responding To System Emergencies?				
44		Emergency Response Planning	Operations, Maintenance, Safety	Are The Following Departments Involved In The Planning, Coordination And Response Process To Emergencies? Operations      Maintenance      Safety				
<b>COLUMN DEFINITIONS:</b>				<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>				

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 8 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
45		Employee & Contractor Safety Program	Safety	Does the Safety Department Monitor Compliance To Applicable Codes, Standards, and Regulations?				
46		Transit Agency Employees	Safety	Is There Evidence That the Safety Department Has Assisted In Determining Safety Measures For Working In Confined Spaces? Has the Safety Department Assisted In Training Staff For Confined Space Working?				
47		Emergency Response Planning Coordination Training	Operations Maintenance Safety	Are Fire Protection/Suppression, Life Safety, and Electrical Safety Requirements Coordinated With Outside Agencies?  Are Joint Operations Plans, Training and Emergency Drills Coordinated Between: Safety, Operations, Maintenance, Security/Medical/Fire, Command Control and Communications?  Maintenance: Electrical Safety Audit (S)?  Safety: Joint Operating Plans for Emergencies, Drills, and Emergency Response?				
48		Hazardous Materials Program	Operations Maintenance Safety	Has A Hazardous Materials Management Program Been Established and Implemented By:  Operations?      Maintenance?      Safety?				
49		Employee & Contractor Safety Program	Operations Maintenance Safety	Is Personal Protection Equipment Provided And Used? Are Appropriate Departments Monitoring the Use?  Operations      Maintenance      Safety				
<b>COLUMN DEFINITIONS:</b>				<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>				

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>	<b>AUDITOR(S):</b>	PAGE 9 OF 16 DATES OF AUDIT:
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<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>	<b>NCDOT CONTROL NUMBER:</b>
<b>TITLE:</b>	

ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
50		System Data Acquisition Analysis Follow-Up	Safety	Is There A Safety Information and Data Analysis System Within the Safety Department That Collects the Following? Critical/ Catastrophic Hazards? Safety Documentation? Accident, Incident And Hazardous Condition Reports?				
51		Inter-Department and Inter- Agency Coordination	Safety	Is There Evidence That the Safety Department Is Providing Appropriate Departments With Information and Periodic Follow-Up Reports Regarding: Passenger and Employee Injuries? Safety Performance Reports? Accident/Hazardous Condition Recommendation Status? Investigations of Accidents, Incidents and Unsafe Conditions?				
52		Inter-Department and Inter- Agency Coordination	Operations Maintenance Safety	Are Appropriate Reports Being Disseminated To Outside Agencies As Required on a: Monthly? Quarterly? Annual Basis?				
53		Training and Certification	Operations Maintenance Safety	Has an Occupational Safety Related Training Program Been Established and Implemented?				

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	<b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 10 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
54		Internal Audit Program	Safety	Does the Safety Department Monitor Training Content n Courses Of Instruction For Appropriate Emphasis on Safety?				
55		Employee & Contract. Safety Program	Safety	Are There Training Program Established and Implemented for Mitigating Chemical, Physical and/or Biological Hazards?				
56		Contractor/ Subcontractor Safety Coordination	Operations Maintenance Safety	Are Contractors/Subcontractors Who Perform Work on the System Required To Attend Safety Orientation Classes?				
57		Training and Certification	Maintenance Training Safety	Do Maintenance Workers Who Perform Work on Critical Systems Attend Classroom Training? Do They Receive On-The-Job or In-Service Training?				
58		Training and Certification	Operations Maintenance Safety	Are Operations and Maintenance Staff Appropriately Trained In Following Safety Rules and Procedures Applicable to Their Work?				
59		Description of Purpose	Operations Maintenance Safety Human Resources	Is There A Progressive Discipline Process for Staff That Violate Safety Rules and Procedures? Is It Enforced by All Departments?				
60		Public Awareness Program	All	Is There an Internal Safety Awareness Program That Ensures Establishing Safety Goals And Measures Their Achievement?				
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**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 11 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
61		Public Awareness Program	Safety Public Relations	Is There a Coordinated Public Awareness Program for the Public That Places Emphasis on Safety?				
62		Maintenance, Inspection, and Tests	Maintenance	Review Maintenance Documentation To Ensure That Safety-Critical Inspections and Tests Have Been Performed n: Signal System (Wayside and Carborne) Electrical And Control Subsystems of Guideway Vehicles Emergency Ventilation, Lighting, Exits, Exit-ways, Ups, Communications Emergency Trip Stations and Telephones Monitoring Fire Protection/Suppression Systems OCC Status Alarms for: Signaling, Fire, Traction Power, Interlockings Track And Wayside Maintenance and Inspections Power, Escalators, Elevators, Kiosks, Stations, Lay Up Areas and Remote Vehicle Storage Locations				
63			Operations Control Center	Review Control Center Documentation To Ensure Safety Critical Inspections and Tests Are Performed: Service Departure Tests of Guideway Vehicles Station Status Alarms Control Systems And Alarm Monitoring				
<b>COLUMN DEFINITIONS:</b>				<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>				

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 12 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
64		Maintenance, Inspection, and Tests	Maintenance	Review Quality Assurance Audit, Inspection and Test Procedures of the Maintenance and Support Departments for: Fixed Guideway Vehicles Systems Civil And Structures Support Services				
65		Training and Certification	Operations Maintenance Engineering	Review Evidence of Coordination Regarding Certification, Recertification and Decertification That: Enforce Violations Control Changes To System Equipment and Facilities				
66		Drug and Alcohol Program	Personnel Administration	Is There a Program Established and Implemented for Monitoring, Counseling, and Enforcing Alcohol and Substance Abuse in the Work Place				
67		Procurement	Maintenance Procurement Engineering Safety	Review Procurement Documents for Critical Software Programming Requirements. Have Engineering and Safety Reviewed the Software Analysis?				
68		Audit Responsibility	Safety	Review the Safety Department for Compliance Regarding Internal Safety Program Audits				
69		Audit Reporting	Safety	Review Documentation for Management Awareness of Safety Deficiencies and Follow-Up By: Operations      Maintenance      Safety      Training				
<b>COLUMN DEFINITIONS:</b>				<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>				

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 13 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
70		Policy Statement	All	Is There a Clear Statement of the Transit Agency's Commitment Toward Security in All Aspects of Operations?				
71		Description of Purpose	Transit Police	Does The Program Plan Provide An Explanation Of The Security Program's Purpose?				
72		Policy Statement	Safety Transit Police	Does the SSPP Outline and Discuss the Process the Transit Agency Has Adopted for Implementation Regarding Security?  Is There a Clearly Stated Policy Toward Security and Has It Been Endorsed by Top Management and Disseminated to All Departments?				
73		Objectives	Transit Police	Are There Clearly Stated Security Program Goals and Objectives?				
74		General	Transit Police	Are There Plans and Programs in Place To Achieve Security Goals and Objectives?				
75		Security Program Implementation Requirements	Transit Police	A Description of the Role of the Security Program, Identification of Who Is Responsible for the Security Program, Staff Involved (Number), Staff Functions, and Position/Reporting Relationship Within the Transit Agency Organization  Does The Plan Include a Description of How the Security Forces Interface With Other Law Enforcement Agencies Functionally, Communicate, and Share Jurisdictional Responsibility?				
<b>COLUMN DEFINITIONS:</b>					<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>			

**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 14 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
76		Requirements for SSPP	Transit Police	Does The Security Program Recognize NCDOT's Authority and Responsibility for Overseeing Implementation of the Security Program By Reviewing Records, Witnessing Inspections and Tests, Inspecting Facilities, Participating in Training Sessions, Observing Work Practices, and Auditing Total Program Implementation?				
77		Security	Transit Police	Is There an Organization Chart Showing the Relationship Between Safety and Security, and Other Transit Agency Departments?				
78		Audit Completes	Safety Transit Police	Are There Requirements for Conducting Periodic Reviews and Internal Audits To Determine Compliance With the Security Portion of the SSPP?				
79		Threat & Vulnerability Identification Assessment & Resolution	Transit Police	Is There a Summary of Current Efforts To Ensure the Security to Passengers and Employees With Respect to Proactive Programs and Response Measures?				
80		Security Operating Activities	Operations Maintenance Safety Security	Does the Security Program Include a Description or Tabulation of the Major Facilities and a Description of the Security Devices And Procedures To Protect the Facilities?				
81		Threat & Vulnerability Identification Assessment & Resolution	Transit Police	Is There a Description of Current Conditions Regarding Crime Rates and Security Breaches, By Location?				
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**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>				<b>AUDITOR(S):</b>			PAGE 15 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
82		Organizational Structure	Transit Police	Is the Responsibility for Preparation and Maintenance of the Security Portion of the SSPP Including Period Reviews and Update Identified?				
83		Configuration Management	Operations Maintenance Safety Security	Are There Configuration Controls To Ensure That Management Before Adoption Properly Evaluates Modifications? Are They Made In Writing? Are They Distributed To All Appropriate Parties? Is the Configuration Control Process Formally Documented and Complied With?				
84		Security Operating Activities	Operations Maintenance Safety Security	Does the SSPP Identify by Title and Description, Each of the Implementation Procedures Included In the Security Portion of the SSPP Including Procedures for Security Program Planning, Proactive Measures, Emergency Response Measures and Training?				
85		Security	Operations Maintenance Safety Security	Is Identification of the Specific Departments and Individuals Responsible for the Preparation, Modification, and Implementation of Each of the Procedures Identified in Item # 83 Above?				
86		Security Training	Transit Police	Does the SSPP Describe the Training and Certification Programs for Employees Who's Duties Include in Whole or Part, Their Security Role?				
87		Threat & Vulnerability Identification Assessment & Resolution	Transit Police	Are the Methods Used To Identify Threats and Vulnerabilities of the Transit System Identified?				
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**Safety Review Checklist (continued)**

<b>SYSTEM SAFETY PROGRAM REVIEW CHECKLIST</b>			<b>AUDITOR(S):</b>				PAGE 16 OF 16 DATES OF AUDIT:	
<b>SYSTEM SAFETY PROGRAM PLAN SECTION NUMBER:</b>							<b>NCDOT CONTROL NUMBER:</b>	
<b>TITLE:</b>								
ITEM NO.	SSPP PARAGRAPH NO.	AUDITABLE ENTITY	DEPARTMENT	ITEM DESCRIPTION	A	I	U	REMARKS
88		Configuration Management	Operations Maintenance Safety Security	Are There Requirements for Conducting Assessments of Transit System Modification and Extensions as Part of the Design Process With Respect To Security?				
89		Threat & Vulnerability Identification	Operations Maintenance Safety Security	Does the SSPP Include a Program for the Testing of Security-Related Equipment and Facility Inspections To Assess Their Vulnerability To Security Threats?				
90		Threat & Vulnerability Identification	Transit Police	Acquire a Description of Security Data Collection and Distribution To Persons on a Need-To-Know Basis				
91		Threat & Vulnerability Identification Assessment & Resolution	Transit Police	Does the Security Element of the SSPP Describe the Manner and Who Analyzes Security Information To Assess the Probability and Severity of Threats and Vulnerability?  Does the Plan Provide a Description of the Security Reports Routinely Prepared and the Method of Distribution?  Is the Method of Resolving Identified Threats and Vulnerabilities by Elimination, Mitigation, and Acceptance Described?  Are Regular Progress Reviews Scheduled on a Periodic Basis by Top Management To Assure That the Security Program Remains Current?				
<b>COLUMN DEFINITIONS:</b>		<b>A: ITEM IMPLEMENTATION IN ACCORDANCE WITH SAFETY &amp; SECURITY PROGRAM PLAN(S)</b> <b>I: IMPLEMENTATION AREA OF CONCERN (SEE SUPPLEMENTAL FORM INCLUDED IN THIS REPORT)</b> <b>U: UNABLE TO REVIEW ( SEE REASON/REFERENCE IN "REMARKS" COLUMN)</b>						