Public Transportation Agency Safety Plan

Cape Fear Public Transportation Authority (dba Wave Transit)

Adopted: February 22, 2024

Updated July 15, 2024

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Section 1. Transit Agency Information

General Information

Cape Fear Public Transportation Authority (dba Wave Transit)

Executive Director: Mark E. Hairr

Deputy Director (Chief Safety Officer): Jonathan W. Dodson

Mailing Address: P.O. Box 12630 / Wilmington, NC / 28405

Physical address: Forden Station / 505 Cando St. / Wilmington, NC/ 28405

Phone Number: (910) 343-0106

Website: wavetransit.com

Modes of Service: Fixed route bus, demand response, and vanpool

FTA Funding Sources: FTA Section 5307

Modes of Service Directly Provided:

☐Fixed Route Bus ☐Intercity Bus ☐Bus Rapid Transit

☒Demand Response ☒Complimentary Paratransit

☒Wave Transit does not provide transit services on behalf of another transit agency or entity.

☐Wave Transit provides transit service on behalf of the following transit agency(s) or entity(s).

Section 2. Plan Development, Approval, and Updates

Name of Entity That Drafted This Plan	Cape Fear Public Transportation Authority (dba Wave Transit)	
Signature by the Accountable Executive	**Signature of Accountable Executive**	**Date of Signature**
	Mark Hairr, Executive Director	7/15/22
Approval by the Board of Directors or an Equivalent Authority	**Name of Individual/Entity That Approved This Plan**	**Date of Approval**
	Wave Transit Board of Directors	2/22/24
	Relevant Documentation (title and location)	
	CFPTA Board Meeting, 2/22/24	
Certification of Compliance	**Name of Individual/Entity That Certified This Plan**	**Date of Certification**
	Jonathan Dodson, Deputy Director	7/15/24
	Relevant Documentation (title and location)	

Version Number and Updates

Record the complete history of successive versions of this plan.

Version Number	Section/Pages Affected	Reason for Change	Date Issued
1		New document	2/22/24
2	10	Infectious Disease	7/15/24
2	19, 21, 23, 24, 26, 33	Documentation retention clarification	7/15/24
2	28	Updated language on background checks	7/15/24
2	35	Infectious disease definition added	7/15/24

Annual Review and Update of the Public Transportation Agency Safety Plan

Describe the process and timeline for conducting an annual review and update of the Public Transportation Agency Safety Plan.

The Authority's Public Transportation Agency Safety Plan (PTASP) will be jointly reviewed and updated if/as needed by the Chief Safety Officer and/or her designee by July 1 of each year. The Accountable Executive will review and approve any changes, signing the new ASP, then forward to the Authority's Board of Directors for review and approval.

Section 3. Safety Performance Targets

Safety Performance Targets

Specify performance targets based on the safety performance measures established under the National Public Transportation Safety Plan.

The safety performance targets referenced below are based on review of the previous five fiscal years of the Authority's safety performance data. The five-year horizon spans from July 1, 2018 (FY19) thru June 30, 2023 (end of FY23).

Mode of Transit Service	Fatalities (Total)	Injuries (Total)	Injuries (per 100 thousand VRM)	Safety Events (Total)	Safety Events (per 100 thousand VRM)	System Reliability (VRM/failures)
Fixed Route Bus	-	15	1.015	9	0.16	6,865
Demand Response	-	-	-	-		32,837

Performance Measures:

- FATALITIES (total number of reportable fatalities and rate per total vehicle revenue miles by mode)
  - Customers, employees and the public
    - Fatalities by mode
      - Fixed Route: 0
      - Demand Response: 0
    - Revenue miles by mode
      - Fixed Route: 5,691,370
      - Demand Response: 1,477,670
- INJURIES (total number of reportable injuries and rate per total vehicle revenue miles by mode)
  - Customers, employees, and the public
    - Accidents with injuries by mode
      - Fixed Route: 9
      - Demand Response: 0
    - Revenue miles by mode
      - Fixed Route: 5,691,370
      - Demand Response: 1,477,670

- SAFETY EVENTS (total number of reportable events and rate per total vehicle revenue miles by mode)

- Combined above with reportable incidents for customers, employees, and the public
    - Safety incidents
        - Fixed Route: 9
        - Demand Response: 0
    - Revenue miles
        - Fixed Route: 5,691,370
        - Demand Response: 1,477,670

♦ SYSTEM RELIABILITY (mean distance between major mechanical failures by mode)

- Relationship with TAM Plan - State of Good Repair (SGR) by mode
    - State of Good Repair: As outlined in Section 2.2 of the Authority's Transit Asset Management (TAM) Plan, adopted January 2021, *State of Good Repair* is defined as: **"The condition in which a capital asset is able to operate at a full level of performance"**. Further, a capital asset is in a state of good repair when the following criteria are met: 1) it is able to perform its designated function, 2) does not pose a known unacceptable safety risk, and 3) its lifecycle investments must have been met or recovered including all preventative maintenance, rehabilitation, and replacements.
    - Vehicle Reliability: To ensure reliability of rolling stock, preventative maintenance is conducted in accordance with vehicle manufacturer specifications. Vehicles are wash, cleaned, and disinfected daily. Service checks of vehicle fluids are conducted daily.
    - System Reliability: We have electronic Preventative Maintenance preformed on all vehicles. Service is conducted at mileage intervals starting at 30k and then again at 60k & 120k. EPM's are conducted in accordance with vehicle manufacturer specifications as documented.
    - Revenue Miles: Fixed Route = 5,691,370; Demand Response = 1,477,670
    - Major Mechanical Failure by Mode
        - Fixed Route: 829
            - Revenue miles: 5,691,370
        - Demand Response: 45
            - Revenue miles: 1,477,670

      The FTA defines a *major mechanical failure* as, "A failure of some mechanical element of the revenue vehicle that prevents the vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip because actual movement is limited or because of safety concerns." The major mechanical failure data referenced was used to determine system reliability as illustrated in the **Safety Performance Targets** table above.

Safety Performance Target Coordination *Describe the coordination with the State and Metropolitan Planning Organization(s) (MPO) in the selection of State and MPO safety performance targets.*		
The Authority's Accountable Executive shares our safety plan, including safety performance targets, with the Wilmington Metropolitan Planning Organization (WMPO) each year after its formal adoption by the Authority's Board of Directors. A copy of the adopted plan is shared with NCDOT's Integrated Mobility Division. Authority personnel are available to coordinate with the WMPO and/or NCDOT on safety performance targets upon request.		
Targets Transmitted to the State	**State Entity Name**	**Date Targets Transmitted**
	NCDOT - Integrated Mobility Division	February 22, 2024 (upon adoption)
Targets Transmitted to the Metropolitan Planning Organization(s)	**Metropolitan Planning Organization Name**	**Date Targets Transmitted**
	Wilmington Metropolitan Planning Organization (WMPO)	February 22, 2024 (upon adoption)

Section 4. Safety Management Policy

Safety Management Policy Statement

The Cape Fear Public Transportation Authority (Authority) strives to provide safe, reliable, comfortable, and innovative transportation options to every member of the community. The Public Transportation Agency Safety Plan (PTASP) has been developed to integrate safety into all Authority system operations. By using the procedures contained in the PTASP, the Authority can continue to improve the safety and security of Wave Transit operation and services.

This PTASP describes the policies, procedures, and requirements to be followed by management, maintenance, and operations personnel to provide a safe environment for Authority and contracted employees, customers, and the public. The goal of this program is to eliminate the human and fiscal cost of avoidable personal injury and vehicle accidents.

Each department has a responsibility under the PTASP. The Executive Director, directors, managers, and supervisors shall provide the continuing support necessary to achieve the PTASP objectives. A key to the success of this effort is for employees to be aware that they are accountable for safely performing the requirements of their position. The success of the program also depends on all employees actively identifying potential hazards and making a commitment to the safety of others.

The Authority must be aware that decisions and actions often affect the safety of those in other operations. By following the processes described in the PTASP, the Authority will continue to improve performance and the safety of the system while creating a culture of safety.

The Authority's commitment is to:

- **Support** the management of safety through the provision of appropriate resources that will result in an organizational culture that fosters safe practices, encourages effective employee safety reporting and communication, and actively manages safety with the same attention to results as the attention to the results of the other management systems of the organization;
- **Integrate** the management of safety among the primary responsibilities of all managers and employees;
- **Clearly define** for all staff, managers, and employees alike, their accountabilities and responsibilities for the delivery of the organization's safety performance and the performance of the Authority's safety management system;
- **Establish and operate** hazard identification and analysis, and safety risk evaluation activities--including an employee safety reporting program as a fundamental source for safety concerns and hazard identification--to eliminate or mitigate the safety risks of the consequences of hazards resulting from Authority operations or activities to a point which is consistent with an acceptable level of safety performance;
- **Ensure** that no action will be taken against any employee who discloses a safety concern through the employee safety reporting program, unless disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures;
- **Comply** with, and wherever possible exceed, legislative and regulatory requirements and standards;
- **Follow** the Bipartisan Infrastructure Law's infectious disease requirement and be consistent with the CDC in protecting staff and the public from any infectious diseases;
- **Ensure** that sufficient skilled and trained human resources are available to implement safety management processes;
- **Ensure** that all staff are provided with adequate and appropriate safety-related information and training, are competent in safety management matters, and are allocated only tasks commensurate with their skills;
- **Establish and measure** safety performance against realistic and data-driven safety performance indicators and safety performance targets;
- **Continually improve** safety performance through management processes that ensure that appropriate safety management action is taken and is effective; and
- **Ensure** externally supplied systems and services to support operations are delivered, meeting established safety performance standards.

The Authority's goals for safety are established as follows:

- In collaboration with community partners and under direction provided by customers and the public at large, design, construct, test, and operate a transportation system that achieves an optimum level of safety, exceeding the safety performance of other transit systems of a similar size in the United States.
- Identify and evaluate, then eliminate or control hazards to employees, customers, and the public.
- Meet or exceed all government and industry occupational health and safety standards and practices.
- Maximize the safety of future operations by affecting the design and procurement processes.

The objectives of the PTASP are the means to achieving its goals. They also provide a method of evaluating the effectiveness of the Authority's safety efforts. The PTASP objectives are:

- Integrate safety management and hazard control practices within each department.
- Assign responsibilities for developing, updating, complying with, and enforcing safety policies, procedures, and requirements.
- Verify compliance with safety policies, procedures, and requirements through performance evaluations, accident/incident trends, and internal audits.
- Investigate all accidents/incidents, including identifying and documenting the causes for the purpose of implementing corrective action to prevent a recurrence.
- Increase investigation and systematic documentation of near misses.
- Identify, analyze and resolve safety hazards in a timely manner.
- Minimize system modifications during the operational phase by establishing and utilizing safety controls at system design and procurement phases.
- Ensure that system modifications do not create new hazards.
- Train employees and supervisors on the safety components of their job functions.

The Authority takes these commitments seriously as the lives of Wave Transit customers, employees and the general public depend on our ability to operate in a culture of safety.

_____

Executive Director

_____

Date

Safety Management Policy Communication

The Authority recognizes the importance of ensuring its employees and riders are aware of the Authority's safety management policies and procedures to effectively manage the system's day to day operations. To do this, the Authority relies on several forms of effective communication.

Employees: The Authority is constantly evaluating existing policies and procedures to verify their effectiveness. To do this, the Authority seeks input from contracted and Authority staff members, to determine if change is necessary based on trends, data analysis, operational changes or new assets. Several methods are used to communicate policy and/or procedure changes, including:

- Employee memorandum through paycheck, daily manifest of work orders, agency meetings
- Bulletin board notices
- Departmental meetings

The Authority includes a training element for safety management policies impacting safety or service delivery and is conducted before the policy effective date. New policies and procedures are incorporated into orientation training for new employees as well.

Depending on the importance of the policy or procedure change, an acknowledgement signature is required of each employee verifying their understanding of the change.

Riders: If a rider policy is changed or added, the Authority notifies riders through the following methods:

- Notice posted on vehicle and facilities including effective date and who to contact for additional information
- Changes to digital rider guidance including schedules and ride guides as appropriate
- Public Meetings
- Social Media
- Any services impacted by policies changes will include outreach as required by Federal Guidance.

Authorities, Accountabilities, and Responsibilities

As mentioned in the Safety Policy Statement, the ultimate authority for the success of this PTASP falls to the Accountable Executive (AE). The Chief Safety Officer (CSO), the administration and management team, as well as employees fulfilling their commitment to safety on a day-to-day basis support the AE.

Accountable Executive (AE): The Accountable Executive will determine, based on feedback from senior staff, the level of Safety Management System principals to maintain to ensure a safe work environment, rider experience and community safety. The Authority's AE is committed to

providing employees with the tools and training needed to be successful and safe in their roles with the Authority. The AE will continually strive to create a culture of safety among the employees, and the Authority expects each employee to play a role in maintaining a safe workplace.

The Authority's AE will be responsible for developing an annual transportation budget to provide the necessary funding to support training for new hires and experienced staff while also maintaining assets in a State of Good Repair (SGR) and/or replacing it, if it is no longer able to function as originally intended.

The current Accountable Executive, the Executive Director, is responsible for implementation and changes to this Plan.

Chief Safety Officer (CSO): The Authority has concluded one CSO will be sufficient to manage the day-to-day adherence to this Plan and, while in this role, report directly to the AE. As CSO, this individual will monitor safety and security throughout the organization including sub-contractors. All departments have been notified of the CSO's role and the established reporting requirements relating to safety-related matters.

The Authority's CSO will be responsible for the following:

- Developing and maintaining SMS documentation;
- Directing hazard identification and safety risk assessment;
- Monitoring safety risk mitigation activities;
- Providing periodic reports on safety performance;
- Briefing the Accountable Executive and Board of Directors on SMS implementation progress; and
- Planning safety management training.

Roll of Staff to Develop and Manage Safety Management Systems (SMS)

Accountable Executive

The Accountable Executive (AE) will work with the Chief Safety Officer (CSO) and Administrative staff to adjust the PTASP as needed based on staff feedback, trends, and data analysis. The AE is vested with the primary responsibility for the activities of the transit system and overall safety performance. The AE fulfills these responsibilities by providing the resources necessary to achieve PTASP goals and objectives by exercising the approval authority for system modifications as warranted. The AE also sets the agenda and facilitates the cooperative decision making of the Leadership Council (management team).

Chief Safety Officer (CSO)

For purposes of managing the SMS and PTASP, the CSO will report directly to the AE to determine strategy, policy, and goals for maintaining safety and security for passengers, employees, and the public. The CSO will monitor day to day operations and work with both

contracted and Authority staff to identify and mitigate risk through evaluation, feedback, and data analysis.

Supervisors

Supervisors are responsible for the safety performance of all personnel and equipment under their supervision. They are responsible for the initial investigation of all accidents and incidents, and for reporting these accidents and incidents to the Human Resources Specialist, Operations Management, and the Deputy Director.

Employees

All contracted and Authority staff are responsible for performing their work safely and for following established safety-related rules, procedures, and work practices. This includes reporting all accidents, incidents, and hazards to their supervisor per established requirements for the protection of themselves, co-workers, customers, facilities, and equipment.

Key Staff

All contracted and Authority staff will be responsible for maintaining high standards of safety, customer service, and security. The Employee Safety Reporting Program (ESRP) will define the employees' role to identify and mitigate risk through open communication to superiors including the CSO and AE. Administrative staff will be instrumental in ensuring action is taken to reduce risk and the whole system is continuously monitored to ensure actions are effective and appropriate.

All contracted and Authority staff will be involved with updates, modifications, and implementation of the PTASP. Each staff member brings a valued perspective to the development of policies and procedures he or she will be expected to implement. Every opportunity will be given for employees and riders to provide input to increasing safety at Wave Transit. Those opportunities include monthly safety meetings, standing employee meetings and training opportunities as needed, interdepartmental meetings, customer surveys and an open-door policy with access to all management staff.

Employee Safety Reporting Program (ESRP)

As stated in the Safety Management Policy Statement, the Authority is determined to provide a safe working environment for its employees, riders, and the general public. To ensure success, the Authority has developed an ESRP to enable employees to report any risk or perceived risk to a supervisor, CSO, or member of administration.

The ESRP allows each employee to report detailed information and observations whether they are a driver in service, maintenance staff, or other on-duty employee. This program dovetails with other methods currently in place to proactively identify hazards or threats. Those methods include but are not limited to the following:

- Pre/Post Trip Inspections
- Preventive Maintenance Inspections

- Employee Evaluations
- Facility Maintenance Plan
- Training Program
- Rider and Public Complaint/Compliment Process
- Safety and Employee Meetings
- Incident/Accident Policies

Hazard Reporting Process

The Authority has developed a **Hazard Report Form**, illustrated in Appendix 1, to identify and provide information about hazards observed by contracted and Authority employees while on-duty. The three-page form identifies vital information to assist employees in determining an action to mitigate the threat or hazard. This form is not meant to replace accident forms currently being used, but instead used in conjunction with the accident forms. It is proactive reporting method to identify a perceived threat or hazard, potentially endangering employees, riders or the general public. The form serves a dual role as an incident, illness, and near-miss report. The form is located in Appendix 1 of this Plan.

Employees receive training on the procedures associated with the Hazard Report Form. The training covers the following areas:

- Locations of blank Hazard Report Form
- When to use a Hazard Report Form
- Capturing critical information on the form
- Notification process depending on the hazard
- Proper assessment of the reported hazard
- Levels of likelihood of repeat
- Supervisor and CSO role in completing the form
- Follow-up process to determine effectiveness of mitigation

The following process is used as part of the ESRP.

Immediate Action Required

If you have identified a hazard which you perceive to be a risk to yourself, fellow employees, passengers, or the public you must report it immediately to the on-duty supervisor/dispatcher. Once reported you must determine if immediate action is necessary to prevent additional risk. If so, communicate it to a supervisor before taking action if time allows. Once action has been taken to mitigate the potential harm to yourself, others, or property, advise a supervisor of the results of your actions. Once you are able, complete the Loss Prevention Investigation Report with complete information and give it to supervisor on-duty.

Delayed Action Required

Once a hazard has been identified, the employee should assess if the hazard requires immediate action to reduce the risk of if delayed action can be taken. If the employee determines delayed action is appropriate a full report must be completed using the Loss Prevention Investigation Report and submitted to the on-duty supervisor.

Role of Supervisor

The on-duty supervisor is responsible for advising the employee on immediate action or delayed action to mitigate a hazard. The supervisor must then review the Loss Prevention Investigation Report to ensure all information is included, adding additional information from their perspective. Once the form is complete it must be reviewed by the CSO to determine action necessary, investigate root cause of hazard and follow-up.

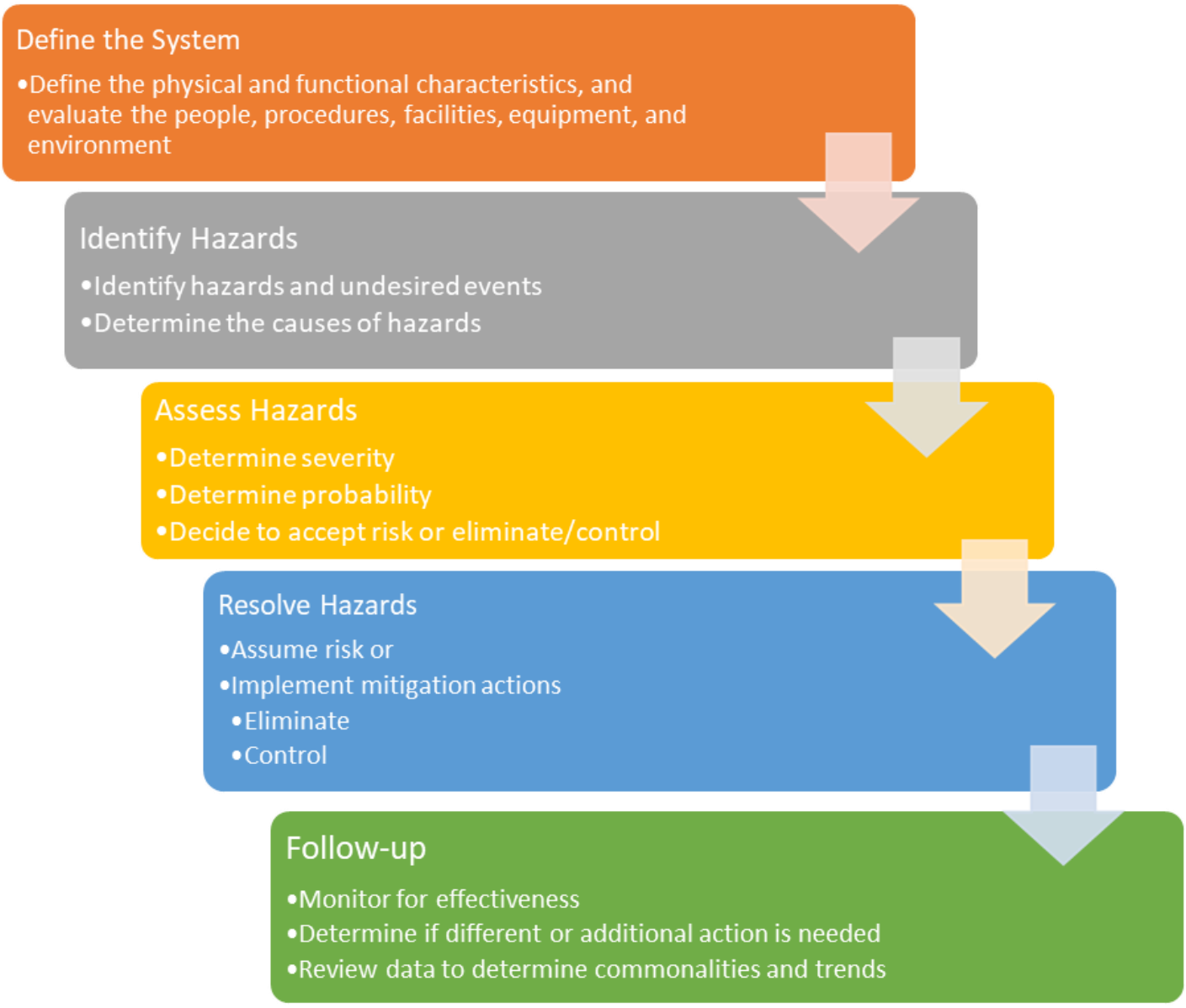
The CSO is responsible for making a final determination regarding the status of hazards as reported. In some cases, hazards may be identified and are not able to be resolved but actions are taken to reduce the risk of the hazard. It is the Authority's goal to eliminate all identified hazards if possible. Some hazards may require continuous monitoring to ensure the hazard does not elevate to an action level.

All hazard reports will be documented and integrated into current performance measures and data collection. The CSO will track each hazard to completion and recommend policy or procedural changes if needed because of the hazard mitigation.

Cape Fear Public Transportation Authority Responsibility

The Authority takes every hazard report seriously and investigates each one to determine if it is an isolated case, or emerging trend requiring evaluation of policies and procedures or service modifications. Employees reporting hazards will not face disciplinary action unless that employee contributed to the hazard. The Authority wants to encourage all employees to report any hazard or threat they observe and help make the Wave Transit system as safe as possible for its employees, riders, and the public. Employees may report the hazard to their immediate supervisor or go directly to the CSO to submit and discuss their report.

The following process chart illustrates the steps taken as part of the hazard identification process through the ESRP:


Define the System
•Define the physical and functional characteristics, and evaluate the people, procedures, facilities, equipment, and environment
Identify Hazards
•Identify hazards and undesired events
•Determine the causes of hazards
Assess Hazards
•Determine severity
•Determine probability
•Decide to accept risk or eliminate/control
Resolve Hazards
•Assume risk or
•Implement mitigation actions
•Eliminate
•Control
Follow-up
•Monitor for effectiveness
•Determine if different or additional action is needed
•Review data to determine commonalities and trends

Section 5. Safety Risk Management

The Authority provides training to all personnel in the identification of hazards and security threats while also providing tools to enable personnel to report these risks. Once the risk has been identified, the Authority conducts an assessment of the risk to determine the necessary response and response time. The response may include further investigation or monitoring, action(s) to mitigate the hazard or security threat, and follow-up assessment to ensure action taken is appropriate and effective.

Safety Hazard Identification:

Hazard and security threats are identified through different methods of monitoring the system. This includes system, employee, and asset assessments conducted daily and on an incremental basis. The Authority conducts the following routine and random evaluations of the system in the following departments:

Personnel

The contractor and each Authority employee are evaluated annually to ensure they are performing their job to the expectations of the Agency. As part of their orientation process the employee is provided training and tools to perform their job while not receiving permanent status until completing 90 days of employment. During the 90-day period, the employee is evaluated to determine if they are properly prepared to perform their job.

Additional evaluations of the employee are conducted throughout the year through spot-checks of some aspect of their job function. If through spot-check or annual evaluation it is determined the employee's performance does not meet expectations or training standards, remedial training will be provided, and additional evaluations will take place to ensure remedial training was effective.

Assets

Rolling stock, facilities, and equipment are monitored through a rigorous preventive maintenance plan aimed at identifying hazards and deficiencies as part of daily and scheduled inspections. Operations and Maintenance Departments coordinate the preventive maintenance program including daily Vehicle Inspection Reports (VIR)s, incremental and annual inspections.

The Authority updates the FTA required Transit Asset Management (TAM) Plan annually with data relevant to each asset to include a condition assessment, miles (with rolling stock and non-revenue vehicles) and age as to whether the asset is in a State of Good Repair (SGR). The TAM Plan allows management to plan asset replacement or rehabilitation for future years.

As referenced above, the Authority's current TAM Plan was adopted January 2021.

System

As part of the Authority's safety management system monitoring, the agency uses service evaluations when planning, spot-checking, or responding to an event like an accident or incident. New routes are strategically developed with safety being the priority and passenger access second. The Authority plans and tests all routes before activating for revenue service. All routes are reviewed periodically to determine if environmental hazards may exist requiring modification to the route, schedule, or vehicle.

All front-line staff have been trained to note any changes to service which may be considered a hazard or security threat and through the ESRP, notify their supervisors immediately or upon return to the Authority depending on the severity of the hazard.

Hazard Identification Procedure

Any employee seeing something through inspection or observation they deem to be a hazard is instructed to immediately report that hazard to the immediate supervisor regardless of the perceived level of threat. Depending on the situation, either the immediate supervisor or the employee will complete a Hazard Report Form and submit it to the CSO.

If the hazard requires immediate mitigation, the employee will be instructed on steps to take to reduce the risk which may or may not alleviate the risk completely. Additional actions may be taken once the immediate risk mitigation has been taken. Some hazards may not pose an immediate risk but are still reported and the CSO will be responsible for risk assessment, investigation, and mitigation strategy.

In some cases, a passenger or member of the public may call the Authority with a complaint about a front-line employee which may rise to the level of hazardous behavior or actions. The Authority currently documents all customer complaints/compliments and takes appropriate action to investigate any complaints. Complaints deemed hazardous will trigger immediate action by on-duty supervisors. Documentation is kept for a minimum of three years.

Hazard Report Forms will be located on all vehicles along with standard safety kits for accident and incident reporting, with all Customer Service Representatives (CSR)'s, Dispatch, Operations, and Maintenance Departments. A copy of the form is located in Appendix 1.

The Hazard Report Form will require the employee to briefly describe the hazard noting date, time of day, location, and other pertinent information. The form includes a section for the CSO or immediate supervisor to document immediate action taken to reduce risk, a risk assessment chart prioritizing the risk, and a section for additional follow-up action. All forms will be processed by the CSO and summarized periodically for trend analysis and included in safety performance measures.

> 49 CFR part 673.5
>
> *Hazard* means any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

Safety Risk Assessment

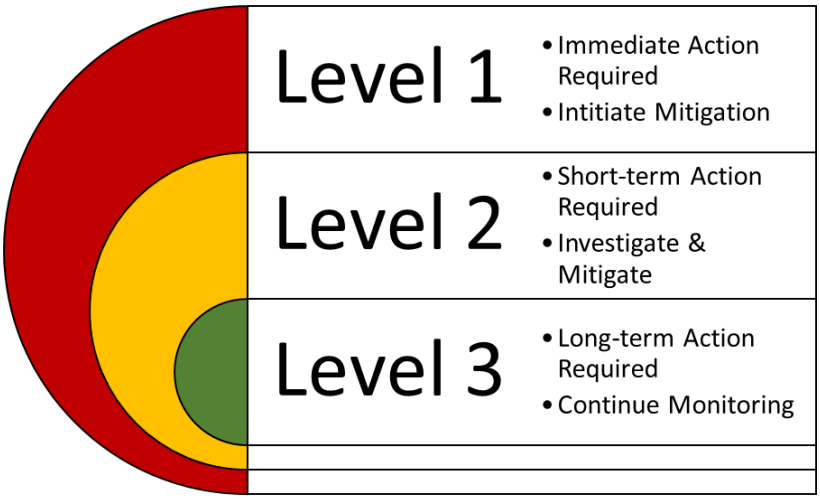
All Authority and contracted staff have been provided with training appropriate for their positions within the organization. The Authority expects all employees to respond to hazards or threats with professional judgement as sometimes there might not be time to contact a supervisor to prevent an emergency event. In cases where the hazard can be reported without immediate risk, the employee will make an initial assessment of the risk as part of their report.

Once received by the CSO, the initial risk assessment may be amended requiring immediate, short, or long-term response.

Level 1 - Immediate: A deficiency, threat or hazard requiring immediate attention to mitigate risk either temporarily until further action can be taken or complete mitigation.

Level 2 - Short Term: Action is needed within seven days to mitigate an identified deficiency, threat, or hazard. The deficiency, threat or hazard does not pose immediate danger but if no action is taken could elevate to an Immediate level risk.

Level 3 - Long Term: A deficiency, threat or hazard has been identified but does not pose a threat currently but could at a later time. Continued monitoring and awareness are required.



The CSO in coordination with staff will investigate each identified hazard, assess the risk, and take appropriate action to mitigate the risk. Additional mitigation may be needed based on follow-up monitoring to the action taken.

Safety Risk Mitigation

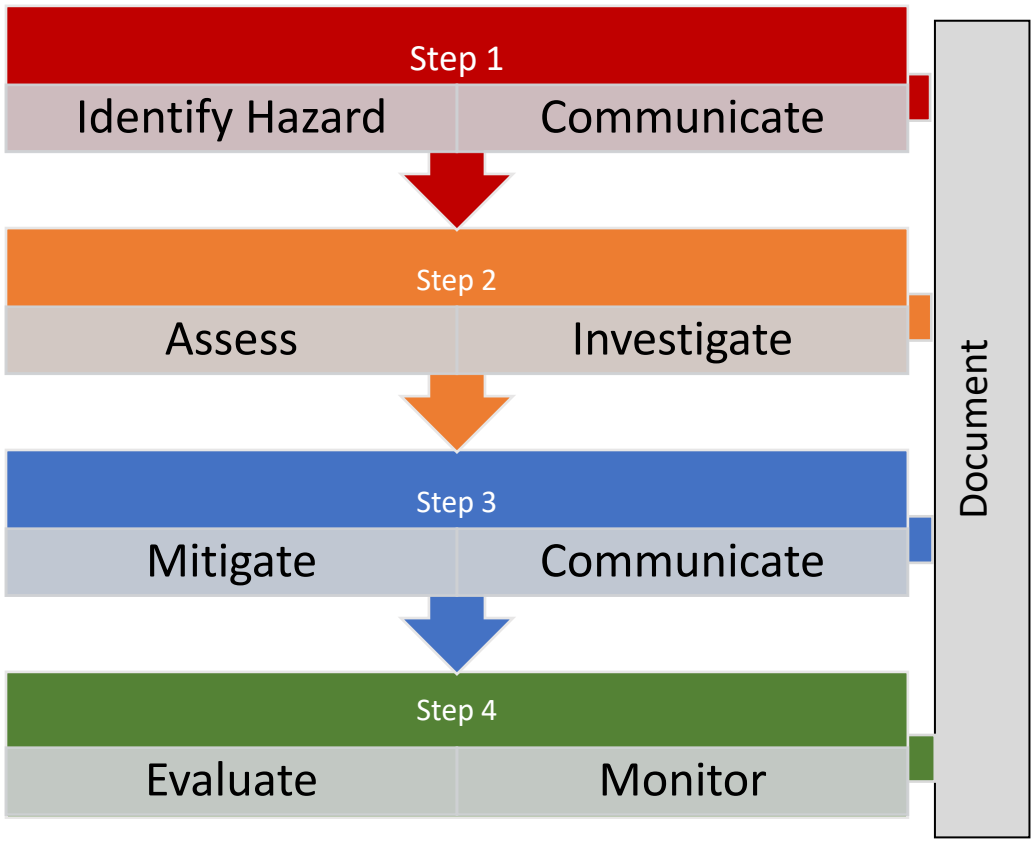
In response to all identified and assessed hazards, the Authority will take steps to mitigate the hazard and reduce or eliminate the risk to employees, riders, and the public. Mitigation strategies will be dependent on results of investigation into the elements contributing to the risks. The investigation may include more than one department and may include interviews outside of the transit system.

Actions to mitigate risk will include all employees, riders, and public who may be impacted by either the hazard or the actions to reduce or alleviate the risk. The Authority will communicate actions to appropriate staff through methods appropriate risk assessment. In some cases, immediate communication through two-way communications (dispatch system) may be necessary. In other cases, bulletin board notices or memorandum posting may be appropriate.

Once a risk mitigation strategy has been implemented, the Authority will monitor the actions to determine if full mitigation is possible and if not, is additional action necessary to alleviate the

risk or is stepped up monitoring necessary. Some risks may not be completely mitigated but awareness to the risk will is a top priority.

All actions taken to mitigate risk will be documented and linked to the initial deficiency, threat, or hazard identification step. Documentation will kept for a minimum of three years.



Section 6. Safety Performance Monitoring and Measurement

Safety performance monitoring and measurement involves the continual monitoring of the transit agency's activities to understand safety performance. Through these efforts, the Authority can determine whether it is meeting its safety objectives and safety performance targets, as well as the extent to which it is effectively implementing Safety Management Systems (SMS).

The Authority is constantly striving to maintain the highest level of safety through its monitoring methods to include adherence to policies and procedures, safety and maintenance plans, and system and employee evaluation processes. These methods allow the Authority to determine the need to make changes to improve policies, employee training and service delivery.

Maintenance

Maintenance Standards and Procedures

. Standards and procedures are included in the Authority's Maintenance Plan. In general, maintenance procedures are designed to ensure that the maintenance recommendations of the manufacturer are met, maximum efficiency in performance and operation is obtained, and maximum bus life and condition are maintained. Daily bus inspections, an active Preventive Maintenance Program, contractor oversight, and careful monitoring are included in procedures to ensure the safety of buses and adequacy of the Fleet Maintenance Plan.

Operator Inspections

. All operators are required to perform a pre-trip and post-trip inspection to ensure that the vehicle is safe and in good operating condition. If any defects are noted by the operator, a Defect Slip is completed and, depending on the severity and extent of the defect, the vehicle may be repaired or taken out of service until a repair can be made. In the case of a defect that develops or is noted once a vehicle is in service, the operator is required to communicate the problem to Operations, who will then notify Maintenance.

Daily Servicing and Inspections

. The Authority's Maintenance Department inspects, and services vehicles used in revenue service each day. The buses are fueled and washed, all fluids are checked, tires and lugs are checked, and the vehicle is inspected for any leaks or unusual noises. The Service Employees, Cleaners, clean and disinfect the vehicle interiors each day. When a defect is noted, it is reported to the Lead Mechanic or Supervisor on shift so that evaluation and, if necessary, a repair can be conducted.

Mileage-Based Maintenance Inspections

. All buses receive preventive maintenance inspections (PMI) at designated mileage intervals. Mileages are determined by vehicle and subcomponent manufacturers and real-world experience. Oil sampling is performed periodically for both engines and transmissions. A description of the schedule and type of inspection and service performed for each bus series is included in the Authority's Maintenance Plan.

Maintenance Inspections of Contracted Providers

. The Authority contracts for maintenance on all vehicles and fixed-route bus services. The contractor must ensure that all passenger vehicles and associated equipment are maintained in proper working condition. The contractor is required to implement a maintenance and safety program that includes a preventive maintenance schedule that complies with FTA requirements for preventive maintenance for vehicles. Further, contractors are required to maintain comprehensive maintenance records on each vehicle and send the information to the Authority. In addition, on-site inspections are conducted at least quarterly to verify vehicle condition.

Operations

Facility Monitoring

Formal facility inspections of all Authority facilities and grounds are conducted by the Authority's Facilities Maintenance Manager with equipment services monthly using a facility checklist. The purpose of the inspections is to identify any unsafe or unhealthy conditions which

may exist, and that may require maintenance or modification. Each facility is also visually inspected for compliance with OSHA and local fire codes.

Any guests to the Authority's administration facility must check in through a secured process requiring check-in and validation of visit purpose. Security gates remain open for approved vendors, Monday through Friday, between 8 AM and 5 PM to ensure access for parts, fueling, and any business necessary for continued operations. Employees are trained on procedures for visitors in the workplace and facility access is limited through security systems.

Frequency

The Safety Committee conducts its safety inspections quarterly. Mechanics and Facilities Maintenance employees look for potential hazards with equipment whenever they are using that equipment. The vehicle hoists, chain pulls, and cranes in the vehicle maintenance shop are inspected annually by contractors. Preventive maintenance of equipment and facilities is performed in accordance with the manufacturer's recommended practice. Hazards are also identified by analyzing work accident trends, through Hazard Report Forms submitted by employees. Forms are used by employees to report safety concerns and to make safety recommendations.

Reporting

When deficiencies are noted during quarterly inspections, they are documented and reported to the director of the department in which the safety hazard is located. When safety hazards are noted by non-scheduled observation, they must be reported by the observer to a supervisor or CSO. Hazard Report Forms are routed to the department, Chief Safety Officer or director best equipped to evaluate the concern and, when necessary, propose a resolution. Documentation is kept for a minimum of three years.

Hazard Resolution

The primary purpose of facility inspections and hazard reporting is to identify conditions that could lead to accidents and losses. In view of this, it is crucial that all departments and employees be involved in the Facility Inspection and the Hazard Identification and Resolution processes. Hazard resolution is related to the severity of the hazard and the probability and severity of a negative consequence of the hazard.

Follow-up

Corrective action for a confirmed hazard that has been identified by any established process is the responsibility of the director of the department area in which the hazard exists or the CSO. This includes arranging for the services of other Authority departments or outside parties, as necessary, to eliminate or control the hazard.

Documentation

Hazards that have been identified, proposed resolutions, and corrective actions are recorded in hard copy by the Safety Committee and maintained by CSO.

All front-line personnel are responsible for monitoring safety and security as part of their respective positions. If a hazard is identified through observation or interaction with customers or the general public, it is reported to the immediate supervisor as well as following the Authority's hazard reporting process. Documentation is kept for a minimum of three years.

Employee Hazard Reporting

Loss Reports

Employees can fill out a Hazard Report Form which is turned into the effected department and the CSO, talk with a supervisor or the Operations Manager, or equivalent. They can also contact a Safety Committee member which is comprised of union and administrative members. Depending on the severity/risk of the hazard identified, immediate action may be taken, or the input will be brought to the Safety Committee for discussion. Feedback will be provided to the employee on what action, if any, will be taken. All employees follow the Employee Hazard Reporting Program Policy.

Route/Operations Safety

Employees can fill out a Hazard Report Form or discuss suggestions for making the system/route safer. The Authority encourages employees to be advocates for safety while also suggesting methods of increasing performance. Management has an open-door policy and makes clear the importance of employee feedback; positive and negative.

Safety Events

Accident and Incident Reporting Process

All accidents and loss incidents are to be investigated. The Authority's safe driving standards require professional, safe performance of all operators. To ensure better than average safety performance, the Authority's contractor employs the Smith System Defensive Driving and other guidelines to determine if a collision or onboard incident could have been prevented. All personnel operating any Authority vehicle are held to this standard.

The Authority's Policies and Procedures Manual includes procedures and responsibilities for accident/incident investigation. The combined manuals establish procedures for accident notification, response, and investigation.

Transit Operations coordinates with outside law enforcement agencies if they investigate an event. Administrative staff coordinates with outside insurance providers and provides support among Authority departments and independent investigation to manage Authority liability and claims.

Most accidents and incidents involving the Authority are relatively minor in severity and are investigated by Operations Management. Since most accidents involve buses, this section focuses on bus accidents. However, all non-bus accidents and incidents are also investigated.

Notification

Bus Operators are to notify the operations system supervisor anytime an Authority vehicle might have been damaged, anytime an Authority vehicle and another vehicle come into contact, or anytime an instance occurs in where a customer may have been injured. An Operations Supervisor will be directed to the scene. Police and ambulance will be dispatched, if necessary.

At-Scene Procedures

Bus Operators will adhere to the following procedures defined in the Policies and Procedures Manual:

- Identify customers in need of medical attention and report to the Operations Supervisor.
- Do not move the vehicle unless required to do so by an Operations Supervisor, fire or police order, or impending danger from traffic.
- Evacuate vehicle in the event of a fire.
- If blocking traffic, set out reflective triangles.
- Obtain names, addresses, and phone numbers of all witnesses.

Operations Supervisors are responsible for conducting on-scene investigations of accidents and incidents. Depending on the severity and the nature of the event, various mechanisms will be used for preserving transient evidence. These may include digital photography, bus video, field sketches, interviews, and observations.

Investigation

An attempt is made to complete the investigation of most accidents within three days. Operations Supervisors are required to complete an Accident/Incident Report. Operators are required to complete an Accident Information Report. The Supervisor is required to file both reports electronically as well as a hard copy and attach all relevant media for use by the CSO.

A Report of Injury Form must be completed if an employee suffers an injury or illness as a result of an accident or incident.

Accident Review Process

Accidents and Incidents are classified as Preventable or Non-Preventable.

Preventable accidents are defined as those accidents that could have been reasonably avoided if the operator had followed all defensive driving techniques as established by Authority Operations Procedures and Policies.

After reviewing all related documents and evidence, the investigating Operations Supervisor makes an independent preliminary determination of whether the accident was preventable.

The accident determination is made by the Assistant Operations Manager, or equivalent. If contested, the determination is reviewed by the Safety Committee and a final determination is rendered. The Committee meets a minimum of once monthly and is comprised of at least one bus operator, a Union-Elected Bus Operator, a Maintenance Supervisor, a Transit Operations Supervisor, and the Administrative Representative to take minutes.
The Committee follows all policies, procedures, and definitions as established in the Authority's Policies and Procedures Book. Examples of investigations may include reviews of accident and injury reports, vehicle condition reports, witness statements, employee interviews, accident scene sketches, bus videos, physical evidence, brake test reports, training manuals, and accident site visits. Employees who are not in agreement with the Committee's determination can appeal directly to the Committee by providing additional evidence and testimony.

If the employee is not in agreement with the appeal results, he or she can make a second and final appeal to the Operations Manager. The Operations Manager may review all relevant information, interview the employee making the appeal, interview Safety Committee members, and confer with any available person or resource he or she considers valuable to his or her deliberation.

Hazard Resolution

The primary purpose of the Accident Investigation process is to determine the cause(s) of accidents so that they may be prevented or mitigated in the future. To this end, it is crucial that all relevant departments be appropriately involved in the Process. A serious attempt is made to use lessons learned through the investigatory process to incorporate hazard resolutions into future procedures, designs, construction, modifications, training, and procurements.

Follow-up

Follow-up in the form of corrective actions is the responsibility of the employee's director. The responsibility may be delegated to the employee's manager, supervisor or CSO.

Any disciplinary action will be assessed using the Collective Bargaining Agreement procedures and/or the Work Rules Handbook. Disciplinary consequences for accidents may include warnings, suspensions, and discharge.

Training will be provided, in most cases, for employees who have been involved in two preventable accidents within one year. Training and re-training are not disciplinary in nature.

Internal Reporting

The Operations Supervisor is responsible for ensuring that all accident reports are completed and filed with Human Resources and CSO.

Documentation

Transit Operations and Human Resources and CSO maintain the accident investigation documentation. Documentation is kept for a minimum of three years.

Performance Measures

Through a series of performance measures relative to operations, maintenance, and safety, the Authority can monitor the system's safety by identifying trends and gaps in policies, procedures, training, and monitoring efforts. The following performance measures are on a daily, monthly, and quarterly basis.

Maintenance

- **Preventive Maintenance On-time Inspection Percentage** – determines the effectiveness of the maintenance department to ensure all inspections are conducted per manufacturing and Wave Transit mileage intervals.
- **Vehicles Removed from Revenue Service** – tracks vehicles removed from service due to a mechanical defect developed while in service requiring immediate service either on-site of failure or once returned to the facility.
- **Annual Vehicle Condition Assessment** – through annual inspection, determines on a scale of 1-5 the overall condition of the asset. This performance measure is also used in annual updates of the Authority's Transit Asset Management Plan.

Operations

- **Customer Complaints Per Month** – tracks all customer complaints to identify areas of deficiency with vehicle, driver, or other Wave Transit areas. Safety-related complaints are immediately routed to a supervisor on-duty or the CSO for investigation mitigation and response. Complaints may be a result of phone calls, website, or the Authority's public forums.
- **On-time Performance** – serves as an indicator to issues with time management, environmental factors, scheduling, and vehicle and driver performance.
- **On-board Surveys** – conducted as scheduled, allow the Authority to receive rider feedback about bus operator performance, customer service, and vehicle safety.

Safety

- **Safety Performance Measure: Fatalities** (total number of reportable fatalities and rate per total vehicle revenue miles by mode)
- **Safety Performance Measure: Injuries** (total number of reportable injuries and rate per total vehicle revenue miles by mode)
- **Safety Performance Measure: Safety Events** (total number of reportable events and rate per total vehicle revenue miles by mode)
- **Safety Performance Measure: System Reliability** (mean distance between major mechanical failures by mode)

Section 7. Safety Promotion

Operator Selection

Hiring Practices

Selecting applicants best suited to excel at the Bus Operator job requirements is critical to safe transit operations. The transit Bus Operator is directly responsible for the safety of not only the passengers, but also the pedestrians, bicyclists, drivers, and all others who share the road with the transit vehicle. The hiring process implemented by the Authority's contractor includes the following components:

Applications

Applicants are sought through postings in traditional and culturally diverse media, referrals from current employees and the Authority's website and applications filed by prospective candidates when there are no positions available. The applications are screened by key personnel in Human Resources and Transit Operations.

Interview

After application reviews, applicants are then interviewed by Operations management. The interview process is designed to evaluate a candidate's strengths in customer service, the ability to simultaneous perform tasks, conflict resolution, and the ability to perform well under temporal and interpersonal pressure.

Driving Record

To be eligible for hire, a candidate must submit an acceptable driving tract dating back five years. This establishes 21 years as the de facto minimum age requirement for new hire Bus Operators.

Licensing

To be eligible for hire, a candidate must be able to earn a CDL with a Passenger and Air Brake Endorsement.

Criminal Background Check

To be eligible for hire, a candidate must submit to a Criminal Background Check administered by the North Carolina State Police with the Federal Bureau of Investigation. The results must meet all statutory and agency standards for the Bus Operator position.

Persons with any felony convictions are unacceptable. Other unacceptable convictions include crimes of violence, drug usage for a minimum of ten (10) years, or sales, physical abuse, registered sex offender, fraud or theft. A pattern of unlawful behavior shall also disqualify an applicant.

Drug Testing

To be eligible for hire, a candidate must produce a negative result for a seven panel, pre-employment drug test, either via urine or oral fluids.

Physical Capacities Testing

To be eligible for hire, a candidate must pass a position-specific physical capacities test.

Training

There are formal training programs for Bus Operators, Maintenance employees and Operations employees. These include training classes, manuals, contractor Standard Operating Procedures, and on-the-job training.

The safety component of training is designed to make employees aware of the hazards associated with their jobs and the appropriate methods for controlling these hazards. The training is intended to motivate employees to work safely. Trainings fall into three main categories: (1) Initial, (2) Periodic, and (3) Remedial or Refresher.

Initial Bus Operator Training

New Bus Operators receive an intensive two-week training course that covers every aspect of their new job. Some components of the training are delivered in the classroom. Most of the learning occurs on the buses during off-route and on-route training. The training includes, but is not limited to, the following areas:

- Smith System of Driving
- Orientation to the Wave Transit System
- Basic Bus Maneuvers
- Advanced Bus Maneuvers
- Service Stops
- System Overview
- System Procedures
- Communication skills
- Customer Service
- Accessible Service
- Emergency Management
- Fleet Services
- Personal Safety
- Health/Injury Prevention
- Stress Management
- CDL Preparation
- On-route Training
- Vehicle Orientation of all Vehicles

Following successful completion of classroom and closed course requirements, the trainee shall

complete Behind the Wheel (BTW) training. At this stage, the student will drive the bus in real life scenarios and will gain experience on some Wave Transit routes. Each day the student receives a full review and debriefing from his or her instructor. Instructors communicate among one another regarding where additional training for new operators is required. Student rotation among the Operator Instructor group provides each student with experience across a variety of routes, vehicles, times of day, instructional styles, and driving conditions.

After the initial training, new Bus Operators receive additional support and training, including:

- Behind the Wheel Evaluations at the following intervals: 30 days, 60 days, 90 days, and one year.
- Evaluations will continue to be conducted annually after the first year.
- Annual Refresher Training.

Annual Training for All Bus Operators

Every year, each Bus Operator receives refresher and topical training, at minimum, on a quarterly basis. The training addresses, but is not limited to, the following topics:

- Fatigue Awareness
- Dealing with Difficult People
- Resolving Conflict
- Harassment
- Effectively Dealing with People of Differing Ages
- Proper Securement of Mobility Devices
- Defensive Driving Course
- Bloodborne Pathogens
- Safety/Security Update
- Injury Prevention
- Accessible Service Sensitivity
- PTASP

Partial-day trainings are also scheduled on safe winter and inclement weather driving.

Initial Operation Supervisor Training

Transit Operations Supervisors begin their career path, almost exclusively, as Bus Operators who first work in the position of Temporary Supervisor. A Temporary Supervisor performs many functions of the full supervisory position and receives training in, but not limited to, the following areas:

- Drug & Alcohol (Policy and procedures for all types of FTA-mandated testing)
- Accident Investigation (based on the TSI model)
- Emergency Procedures
- Security Procedures

- Blood Borne Pathogens
- Data Entry and Recordkeeping
- Harassment
- Cultural Diversity
- Coaching/Criticism/Discipline
- Field Operations
- First Aid
- Basic Writing
- Conflict Resolution

In addition to their initial training, all Transit Operations Supervisors receive refresher and topical training, at minimum, on an annual basis.

Injury and Illness Prevention Training

Injury and Illness Prevention Training is directed toward achieving a safe working environment for all employees and reducing the chance of occupational-related injuries and illnesses. Most of the training, targets employees working in the Maintenance and Facilities Maintenance Departments because these employees have the greatest exposure to occupational hazards. The program is based on applicable Federal, State, and local safety codes and regulations. Some areas addressed in training include:

- Handling Hazardous Materials (Right to Know)
- Slips, Trips, and Falls
- Personal Protection Equipment
- Material Safety Data Sheets (MSDS) and Labels
- First Aid
- Forklift Safety
- Bloodborne Pathogens
- Hazardous Materials Storage
- Strains and Sprains
- Fall Protection
- Hazard Communication Program

Emergency Response Planning and Coordination

Details are contained in the Authority's Emergency Action Plan and Evacuation Request Procedures.

System Modification Design Review and Approval

General Process

The Authority's bus system is regularly modified in response to operational experience, the addition of new types of service, and changes in service design and levels. The Authority's

philosophy is to use appropriate new technologies to benefit the environment and the community it serves. The challenge is to review any proposed modification adequately before it is approved. Any proposed modification should be evaluated to ensure it is compatible with existing systems and does not introduce new hazards to the system or reduce the effectiveness of existing hazard controls.

Equipment modifications may be proposed by any employee of any department that uses the equipment. Changes may also occur from an analysis of reliability performance, historical data, and available improvements in equipment design and components.

Modification Design Review

A review of any modification in equipment design shall be made by the director and managers of the department responsible for the equipment. It is an informal practice to include Human Resources and Operations in the review of any change that might affect safety. The impact on the safety of all designs and specifications should be identified and evaluated before the change is approved. Some of the areas to be considered include but are not limited to:

- Hazardous Materials (handling and use)
- Motor Vehicle Safety
- Human Factor
- Occupational Health and Safety
- Materials Compatibility
- Fire Protection
- Lighting
- Braking systems
- Mirrors
- Warning Devices

Modifications must not be made before it is determined how they might affect the safety of the system, or any other systems. Other departments may evaluate a proposed change to determine its compatibility with other systems (e.g., fueling systems, communications systems). The evaluation may also include a review of applicable regulations, such as the Federal Motor Vehicle Safety Standards and Regulations and the U.S. Department of Labor's Occupational Safety and Health Act.

Testing may also be performed to evaluate the safety of a proposed modification. The testing of small changes may be minimal. For substantial modifications, extensive field testing, mock-ups, and structural evaluations may be employed.

Modification Design Approval

Final approval is generally made by the Operations Manager or the Maintenance Manager. When modifications are made by a bus manufacturer, the Maintenance Manager works with

the manufacturer, and contractual changes may be made. If changes are substantial, additional training will be provided for maintenance and operation staff.

Monitoring

Once a modification is put in place, feedback from the operating department is solicited to evaluate the performance of the modification. Unsolicited input from the operating department and its employees (end users) is also encouraged. Depending on the nature of the modification, Human Resources, Planning and the Safety Committee may be involved for input.

Documentation

The Maintenance Department is responsible for documenting any vehicle modifications. Facilities Services is responsible for documenting any modifications made to a facility. Documentation may involve changing diagrams, schematics, manuals, service bulletins, service intervals, standard operating procedures, and Material Safety Data Sheets. Maintenance Supervisors are responsible for updating Safety Data Sheets based on input from product manufacturers. Documentation is kept for a minimum of three years.

Routes

Route modifications are traditionally designed by the Planning Department in consultation with an advisory committee and outside contractor. Planning may use a current Bus Operator to test routing and bus stop placement. This experience-based, real-world process is designed to protect the safety of the transit bus, transit passengers, other vehicles, and pedestrians.

The Planning Department informs the Operations Department of any proposed route modifications. The Planning Department can request that the Committee evaluate a specific proposal, or the Committee can choose to evaluate any proposed modifications.

Transit operations management may request a route modification it believes will improve operations. It may also choose to evaluate a modification that has been proposed by another department. Input from individual Bus Operators is encouraged through the Hazard Report Form, direct communication, and periodic surveying of Operators conducted by Service Planners.

Finally, the Planning Department maintains a cooperative working relationship with the appropriate planning and road departments of all municipal levels of government within which the Authority operates.

Additional Information

This PTASP was developed from information in other Authority documents, policies and procedures and manuals. Those documents are listed below:

1) Emergency Action Plan

2) Preventative Maintenance Plan

3) Drug and Alcohol Policy

4) Continuity of Operations Plan (COOP)

Acronyms

Acronym	Word or Phrase
AE	Accountable Executive
ASP	Asset Management Plan
BTW	Behind the Wheel
CDL	Commercial Drivers' License
COOP	Continuity of Operations Plan
CSO	Chief Safety Officer
DDC	Defensive Driving Course
ESRP	Employee Safety Reporting Program
FTA	Federal Transit Administration
MPO	Metropolitan Planning Organization
MSDS	Materials Safety Data Sheets
NCDOT	North Carolina Department of Transportation
PTASP	Public Transportation Agency Safety Plan
SGR	State of Good Repair
SMS	Safety Management System
TAM	Transit Asset Management
TSI	Transit Safety Institute
VRM	Vehicle Revenue Miles

Definitions

The Authority incorporates FTA's definitions from 49 CFR § 673.5 of the Public Transportation Agency Safety Plan regulation.

• **Accident** means an Event that involves any of the following: A loss of life; a report of a serious injury to a person; a collision of public transportation vehicles; a runaway train; an evacuation for life safety reasons; or any derailment of a rail transit vehicle, at any location, at any time, whatever the cause.

• **Accountable Executive** means a single, identifiable person who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a public transportation agency; responsibility for carrying out the agency's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the

agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.

• **Agency Safety Plan** means the documented comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329 and Part 673.
• **Chief Safety Officer** means an adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer. A Chief Safety Officer may not serve in other operational or maintenance capacities, unless the Chief Safety Officer is employed by a transit agency that is a small public transportation provider as defined in Part 673, or a public transportation provider that does not operate a rail fixed guideway public transportation system.

• **Equivalent Authority** means an entity that carries out duties similar to that of a Board of Directors, for a recipient or subrecipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or subrecipient's Agency Safety Plan.

• **Event** means any Accident, Incident, or Occurrence.

• **Hazard** means any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

• **Incident** means an event that involves any of the following: A personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a transit agency.

• **Infectious Disease**, also known as communicable or transmissible diseases, are illnesses caused by harmful organisms, or pathogens, that enter the body from outside. These pathogens are usually microscopic in size and can include bacteria, viruses, fungi, parasites, or rarely, prions.

• **Investigation** means the process of determining the causal and contributing factors of an accident, incident, or hazard for the purpose of preventing recurrence and mitigating risk.

• **National Public Transportation Safety Plan** means the plan to improve the safety of all public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53.42.

• **Occurrence** means an Event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a transit agency.

• **Operator of a public transportation system** means a provider of public transportation as defined under 49 U.S.C. 5302(14).

• **Performance measure** means an expression based on a quantifiable indicator of performance or condition that is used to establish targets and to assess progress toward meeting the established targets.

• **Performance target** means a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the FTA.

• **Risk** means the composite of predicted severity and likelihood of the potential effect of a hazard.

• **Risk mitigation** means a method or methods to eliminate or reduce the effects of hazards.

• **Safety Assurance** means processes within a transit agency's Safety Management System that functions to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

• **Safety Management Policy** means a transit agency's documented commitment to safety, which defines the transit agency's safety objectives and the accountabilities and responsibilities of its employees regarding safety.

• **Safety Management System (SMS)** means the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.

• **Safety Management System (SMS) Executive** means a Chief Safety Officer or an equivalent.

• **Safety performance target** means a performance target related to safety management activities.

• **Safety Promotion** means a combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.

• **Safety Risk Assessment (SRA)** means the formal activity whereby a transit agency determines Safety Risk Management priorities by establishing the significance or value of its safety risks.

• **Safety Risk Management (SRM)** means a process within a transit agency's Agency Safety Plan for identifying hazards and analyzing, assessing, and mitigating safety risk.

• **Serious injury** means any injury which: (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date when the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes, or noses); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

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

• **Transit agency** means an operator of a public transportation system.

• **Transit Asset Management Plan** means the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage

their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost effective, and reliable public transportation, as required by 49 U.S.C. 5326 and 49 CFR Part 625.

Appendix 1 Hazard and Threat Assessment

Accident and Incident Assessment

Threat/Hazard	**A.** **Likelihood** 1 = improbable 10 = certain	**B.** **Impact on Service Delivery** 1 = minor 10 = catastrophic	**C.** **Financial Impact** 1 = negotiable 10 = catastrophic	**Vulnerability Index** **(A+B+C)**
Accidents & Incidents				
Minor Vehicle Collision				
Major Collision no injuries				
Major Collision injury/injuries				
Major Collision fatality				
Passenger Injury before boarding/ after alighting				
Passenger Fall on vehicle/no injury				
Passenger Fall on vehicle/injury				
Employee Injury				
Wheelchair Lift Failure/no injury				
Wheelchair Lift Failure/injury				

Injury Based on Securement Problem				

Organizational Infrastructure Assessment

Threat/Hazard	**A.** **Likelihood** 1 = improbable 10 = certain	**B.** **Impact on Service Delivery** 1 = minor 10 = catastrophic	**C.** **Financial Impact** 1 = negotiable 10 = catastrophic	**Vulnerability Index** **(A+B+C)**
Organizational Infrastructure				
Trespassing				
Vandalism				
Employee Theft				
Bomb Threat				
Dangerous Mail				
Brief Power Outage				
Extended Power Outage				
Hard Drive Crash/Cyber Attack				
Loss of Landline Phone Service				

Loss Of Cell Phone Service				
Loss Of Radio System				
Minor Structural Fire				
Major Structural Fire				
Vehicle Fire without injuries				
Vehicle Fire with injury/fatality				

Acts of Nature Assessment

Threat/Hazard	**A.** **Likelihood** 1 = improbable 10 = certain	**B.** **Impact on Service Delivery** 1 = minor 10 = catastrophic	**C.** **Financial Impact** 1 = negotiable 10 = catastrophic	**Vulnerability Index** **(A+B+C)**
Acts of Nature				
Flooding in community				
Flooding of transit facilities				
Severe Winter Weather				
Fog				
Tornado				
Severe Thunderstorms				

Fires				
Landslide/ Rockslide/ Mudslide/ Sinkhole				

Hazardous Materials Assessment

Threat/Hazard	**A. Likelihood** 1 = improbable 10 = certain	**B. Impact on Service Delivery** 1 = minor 10 = catastrophic	**C. Financial Impact** 1 = negotiable 10 = catastrophic	**Vulnerability Index (A+B+C)**
Hazardous Materials				
Blood borne Pathogen Spill				
Toxic Release				
Fuel Related Event				

Criminal Activity Assessment

Threat/Hazard	**A. Likelihood** 1 = improbable 10 = certain	**B. Impact on Service Delivery** 1 = minor 10 = catastrophic	**C. Financial Impact** 1 = negotiable 10 = catastrophic	**Vulnerability Index (A+B+C)**
Criminal Activity				
Non-employee Theft				

Menacing Behavior on Vehicle				
Assault on Vehicle				
Assault on Employees at or near facility				
Shooter on Vehicle				
Hostage Situation on Vehicle				

Domestic or International Terrorism Assessment

Threat/Hazard	**A.** **Likelihood** 1 = improbable 10 = certain	**B.** **Impact on Service Delivery** 1 = minor 10 = catastrophic	**C.** **Financial Impact** 1 = negotiable 10 = catastrophic	**Vulnerability Index** **(A+B+C)**
Terrorism				
Suspicious Item on Vehicle				
Improvised Explosive Device				
Chemical Weapon				
Biological Weapon				
Radiological Weapon				