The Greater Cleveland
Regional Transit Authority

2025 Public Transportation Agency Safety Plan

Issued January 2025

PTASP LABOR MANAGEMENT SAFETY COMMITTEE APPROVAL

Signed November 18, 2024

PTASP LABOR MANAGEMENT SAFETY COMMITTEE APPROVAL

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REVISION HISTORY

EDITION	DATE ISSUED	REASON FOR CHANGE
1.0	01/31/2020	Original
2.0	01/31/2021	Annual update
3.0	01/31/2022	Annual update
4.0	01/31/2023	Annual update including requirements of the B.I.L.
5.0	01/31/2024	Annual Update
6.0	01/31/2025	Annual Update including new performance measures established by the National Public Transportation Safety Plan

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I. INTRODUCTION

The Greater Cleveland Regional Transit Authority was formed in 1974 from the merger of the Cleveland Transit System, the Shaker Heights Rapid Transit System, and five suburban bus lines into a single countywide transit operating agency. Today, GCRTA provides public transportation at the county level under one unified public authority, thanks in part to the 1% county sales tax adopted in 1975 that supports its operations.

GCRTA provides multi-modal transit services including fixed-route bus, Bus Rapid Transit, Park-N-Ride commuter service, demand-responsive Paratransit, a heavy rail line, a light rail line and a fleet of non-revenue vehicles to support operations. This multi-modal transit system provides more than 400,000 passenger rides per week as of October 2022.

The fixed-route bus system serves Cuyahoga County, with some lines providing service 24 hours a day, seven days a week. The majority of GCRTA's service falls under the classification of fixed-route bus. Vehicles operated include standard 40' low-floor buses, longer articulated buses for heavy ridership routes, and heritage-styled "trolley" buses providing circulator service in the Central Business District. All GCRTA buses and rail cars are ADA accessible.

A Bus Rapid Transit line utilizing dedicated right-of-way, level platform boarding, and customized diesel-electric hybrid Rapid Transit Vehicles operates along Euclid Avenue between Public Square in Downtown Cleveland and Windermere Rapid Transit Station in East Cleveland.

Park-N-Ride services are offered to and from Downtown Cleveland during rush hours using over-the-road motor coaches. These vehicles travel primarily on highways at higher speeds and with much fewer stops compared to regular fixed-route bus service.

Paratransit services are provided in accordance with the Americans with Disabilities Act. Demand-responsive service is provided to those who are eligible via a combination of cutaway buses and mobility vans. Services are provided both by GCRTA directly and via third-party contractors.

The GCRTA Main Office Building (MOB) is located in the Root-McBride Building. The building is a six-story brick structure built in the 19th Century. It is located at 1240 West Sixth Street. Bounded on the south by Johnson Court, a 10 foot wide alley, on the west by a four story commercial brick and wood building built in the 19th Century, on the north by the Brady Building, an eight story occupied and partially restored building of the same vintage as the surrounding area. The general vicinity is known as the "Warehouse District" an area of 19th Century buildings restored into multi-use structures, including housing, retail, and food service. It is here that the Integrated Communications Center is present in a portion of the first floor it shares with Transit Police Dispatch.

Located at 1661 Hayden Ave, East Cleveland, OH 44112, the Hayden District Garage is one of two main bus operating and maintenance districts within the authority. The building includes district management offices, a dispatch office, break room, facility maintenance areas, equipment maintenance areas, and bus storage. Fleets which operate from this location include 6000 series New Flyers and 3300, 3400, 3600, and 3800 series Gilligs. The facility has a walkway which connects directly with the Louis Stokes/Windermere Rapid Transit Station.

Located at 13405 Lakewood Heights Blvd., Cleveland, OH 44112, the Triskett District Garage is the second of two main bus operating and maintenance districts at GCRTA. The building includes district management offices, a dispatch office, break room, facility maintenance areas, equipment maintenance areas, and bus storage. Fleets which operate out of the district include the 1900 series MCIs; various model year NABIs; 3200 series New Flyers; and 3300, 3500, 3700, and 3900 series Gilligs. Triskett District is adjacent to the Triskett Rapid Transit Station.

Located at 4601 Euclid Ave., Cleveland, OH 44103, Paratransit District is the operating and maintenance facility for all in-house Paratransit services. It is also the location for non-revenue vehicle maintenance. The building includes district management offices, a dispatch office, call center, break room, facility maintenance areas, equipment maintenance areas, and vehicle storage. Fleets that operate out of the district include the 7700, 7800, 7900, 7600 series Mobility Ventures, 33200 series Dodge Caravans, and the 34600 GMC Savanas.

Located at 2500 Woodhill Road, Cleveland, OH 44104, Central Bus Maintenance Facility is a maintenance-only district with no revenue service. This facility handles heavy duty work such as engine/transmission replacement and rebuild, brake work, major repairs, paint/body work, and overhaul work not achievable at the operating districts. The building includes fleet management offices, procurement offices, break room, facility maintenance areas, equipment maintenance areas, various mechanical shops, Supply Chain Management offices, and inventory stores, including shipping and receiving docks.

Located at 2440 Woodhill Road, Cleveland, OH 44104, the Woodhill facility is approximately 164,200 square feet in size. It is masonry noncombustible in construction and shares a common driveway with the Central Bus Maintenance Facility at 2500 Woodhill Road. The building consists of the Print Shop, Sign & Shelters Shop, maintenance & cleaning, Transit Police Motor Pool, Administrative offices for Electronic Repair and Service Quality field supervision, Ticket Vending Machine Labs, Electronic Repair Shop, and misc. storage.

Located at 6200 Grand Ave., Cleveland, OH 44104, the Central Rail Maintenance Facility, located on the east side of the 3-building rail complex, has a main floor of approximately 217,000 square feet and a second-floor mezzanine on the north side comprised of administrative offices, locker rooms, lunchroom, electronics room, storage spaces and a training facility. The facility conducts all preventative maintenance and repairs on the GCRTA rail cars.

Located at 6000 Grand Ave., Cleveland, OH 44104, the Rail Service Building is a two-level building of approximately 37,000 square feet, located in the middle of the 3-building complex. This building consists of administrative offices, relay repair room, training rooms, conference room, telephone and computer line room, lunchroom, locker room, heavy equipment maintenance area, building maintenance area, dispenser island fueling area, outside facilities maintenance area, truck storage area, parts storage area, inventory room, Transit Police weapons armory, evidence room and gym area.

Located at 5400 Grand Ave., Cleveland, OH 44104, the Rail Headquarters Building is a two-level building, located on the west side of the 3-building complex. This building consists of rail dispatch, rail management, transit police offices, operators lounge, and locker rooms.

Preventative Maintenance (PM) and Predictive Maintenance Program Plans (PMPP) for all revenue vehicles are driven by the CITME Ultramain System.

Standard Operating Procedures (SOPs) have been developed that set inspection frequencies that are programmed into the CITME Ultramain System. These SOPs are based on manufacturers' and established GCRTA and other industry standards. Maintenance inspections are performed in accordance with the established PM schedules with results entered into the CITME Ultramain System. PMs and other work are carried out by the respective unit employees at each district including CBMF. Supply Chain Management utilizes CITME Ultramain to ensure sufficient parts are in stock for all maintenance requirements.

Ultra Low Sulfur Diesel fuel is the traditional fuel type for transit buses. Diesel Exhaust Fluid, an aqueous urea solution, is added to the 3200, 3500, 3700, & 1900 fleets to reduce Nitrogen Oxide emissions. In an effort to even further reduce harmful emissions, GCRTA adopted an alternative fuel technology using Compressed Natural Gas.

GCRTA's 3300, 3400, 3600, 3800, 3900, 4000 and 4100 series Gilligs have been designed to utilize Compressed Natural Gas for fixed-route operations. CNG buses are stored, fueled, and operated out of the Hayden and Triskett Districts with complex maintenance occurring at the Central Bus Maintenance Facility.

These facilities were retrofitted to accommodate CNG technology and incorporates the necessary safety technology to service CNG vehicles indoors.

Diamond manufactures the 7900 series fleet for Paratransit services. Vehicles are stored, fueled, maintained, and operated out of the Paratransit District.

GCRTA buses operate on a variety of street types in a variety of communities. Fixed-route buses travel on city streets, suburban roads, state routes, and for some express service, on the highway. Park-N-Ride buses travel on highways for most of their trips. The Bus Rapid Transit line is unique in that it operates articulating coaches in a dedicated right-of-way for the majority of its operation with dedicated bus signalization and bus platforms. Bus-only lanes exist in portions of the system for the fixed-route system, particularly in the Downtown Transit Zone and along Clifton Boulevard in Cleveland and Lakewood.

Service Management, in its capacity as planner and scheduler of routes, considers all aspects of the operating environment when planning and scheduling routes. This includes, but is not limited to, lane number, lane width, clearances, turning radii, signalization, and more. Steps are taken to ensure that all bus routes that are planned may be safely navigated along the route, minimizing risk when possible.

Passenger facilities range from a simple bus stop with a pole and sign to large transit centers with bus bays and interior waiting facilities. Service Management determines all bus stop locations to maximize bus travel speeds and bus accessibility. Bus stops are granted a bus shelter if they are anticipated to be used by at least 50 individuals in a day. Service Management considers safety as one of its factors when determining optimal stop location.

Transit Centers are located at critical transfer points to maximize transfer opportunities and provide comfortable waiting environments for passengers. Park-N-Ride facilities are the terminus of Park-N-Ride commuter bus service and fixed-route flyers. Unlike Transit Centers, their purpose is to allow access to the bus network through passenger parking, rather than facilitating transfers.

The Sign and Shelter Shop within Service Management is responsible for maintenance of the bus shelters and bus stops. Assignments for the various transit centers, Park-N-Rides, and bus loops are distributed amongst Service Management and the various Bus Districts, controlled by an assignment log that assigns cleaning, maintenance, and snow plowing for each facility.

The GCRTA operates two distinct types of rail transit systems, which make joint use of track on a segment of 2.8 miles, the only such combined operation in North America. The heavy rail Red Line consists of 18 high platform stations along a single route nineteen miles of double track in length, extending from the Cleveland Hopkins International Airport on the west and to Louis Stokes Station in East Cleveland on the east, generally alongside private railroad rights-of-way. These trains operate above ground with the exception of the stations at Cleveland Hopkins International Airport, which is located within a 1,628 foot long tunnel, and Tower City station, which is enclosed, but not subterranean. A length of 2.8 miles between Tower City Station and Kinsman Interlocking uses the same tracks as the light rail lines described below, and is referred to as the Joint Area.

The active, revenue service rolling stock consists of 40 cars built by Tokyu Car Corporation, delivered in late 1984 and early 1985. Heavy rail schedules require 16 cars during operation. Rail service operates approximately 21 hours per day, 7 days per week.

The light rail system of GCRTA, formerly known as Shaker Rapid, is a two-track line between Shaker Heights and the Lakefront Municipal Parking Lot (South Harbor). The system has a fully grade-separated route for six miles between downtown Cleveland and Shaker Square. The line has two branches east of Shaker Square in the landscaped median strips of Van Aken Boulevard (Blue Line) and Shaker Boulevard (Green Line). West of Tower City the line turns north through the Flats (Waterfront Line). The total line length is 15.3 miles of double track. The first 2.8 miles east of Tower City use the same tracks as the high-platform heavy rail line in the Joint Area.

Light rail schedules require 6 cars during operation. Light rail service operates approximately 21 hours per day, 7 days per week. The equipment consists of 29 cars manufactured by Breda Costruzioni Ferroviarie, delivered in 1980 and 1981. The Breda cars are 79 feet – 10 13/16 inches long and seat approximately 70 passengers. These articulated cars are bi-directional with an operator cab at both ends. They have three doors per side.

The light rail lines from East 75th Street junctions to Green Road Station on Shaker Boulevard and Warrensville Center Road Station on Van Aken Boulevard are not interlocked. Warrensville/Van Aken has, however, a push button route selector to select the route. There is an electrically controlled interlocking at the East 75th Street junction. A signal, train stop and push button were installed and became operational in Nov. 2003 at East 79th Street Station to ensure Operators enter cab signal territory when traveling westbound.

There is a push button route selector at the junction between the Blue and Green Lines at Shaker Square. The light rail line from Settlers Landing to South Harbor, Waterfront Line, does not have any interlocking machines or remote control systems.

Following are the 18 high-platform stations listed from west to east:

Airport
Brookpark
Puritas - W. 150
West Park
Triskett
West 117th - Madison
West Blvd - Cudell
West 65th - Lorain
West 25th - Ohio City
Tower City
Tri-C - Campus District
East 55th
East 79th
East 105th - Quincy
Cedar-University
Little Italy – University Circle
Superior
Louis Stokes/Windermere

Following are the 34 low-platform stations from west to east:

Main Line
*Tower City
*Tri-C - Campus District
*East 55th
*East 79th
*Buckeye - Woodhill
*East 116th - St. Luke's
Shaker Square

Waterfront Line
*South Harbor
*E. 9th/North Coast
*West 3rd
Flats East Bank
Settlers Landing

Van Aken Branch (**Blue Line**)
Drexmore
South Woodland
Southington
Onaway
Ashby
*Lee – Van Aken
Avalon
Kenmore
Lynnfield

Shaker Branch (**Green Line**)
Coventry
Southington
Nature Center at South Park
Shaker - Lee
Attleboro
Eaton
Courtland
*Warrensville - Shaker
*Belvoir

Farnsleigh	*West Green
Warrensville – Van Aken	Green Road

* No at-grade street crossing at these stops.

The rail systems contain many control and communications safety features including:

- Two-way radio communication with all trains.
- Automatic Block System (ABS) signals from E. 79th to Shaker Square and a few isolated curves on the Green and Blue Lines.
- Computerized Consolidated Train Dispatching System (CTDS) using cab signals on the Red Line and the light rail line from E. 79th to Settlers' Landing.
- Automatic interlocking with CSX Railroad at West 3rd on the Waterfront Line.
- Interlocking and dwarf signals on heavy rail.
- Absolute block procedures throughout system.
- Automatic overspeed control on heavy rail governed by cab signals.
- Cab signal testing capability at entrance to main line from all yards.
- Posted speed control circuits with Automatic Train Stop (ATS) on certain approaches.
- Deadman control feature on all rail vehicles.
- Rail crossing signals on the Waterfront portion of light rail with crossing gate protection at St. Clair Avenue, Robert Lockwood Jr. Drive, and Main Avenue Grade Crossings.
- Airport Tunnel Ventilation - Installation of 5 supply/exhaust fans to operate under normal operating conditions or as designed during three smoke/fire potential conditions. The control system utilizes inputs from a tunnel-long Very Early Smoke Detection Apparatus (VESDA) system initiating proper fan supply or exhaust function automatically depending on the incident location.

Security at GCRTA is primarily managed through the Agency's Transit Police Department. Transit Police responds to all security related issues throughout the system. Transit Police controls access to agency facilities through a system of card access readers that unlock when authorized badges are tapped to the interface. This restricts access for both the general public, as well as employee classifications that are not required to reach certain areas of the system to complete their assignments. GCRTA has a separate budget of $15.95 million established for its transit police force, exceeding the 1% security requirement; therefore, it does not allocate Section 5307 funds for security purposes.

GCRTA allocates $700,000 in Section 5307 funds for PM ($500,000 Bus/$200,000 - Rail). Funds will be used for safety-related activities such as vehicle maintenance, including capitalized maintenance (mechanic labor) and rail construction required to upgrade the rail line infrastructure, exceeding the Urbanized Area Formula Program fund requirement of 0.75 percent for safety-related projects. Beginning in FY 2026, GCRTA will create a line item in our Program of Projects in our Section 49 U.S.C. 5307 formula fund greater than or equal to 0.75% of the total 5307 funding dedicated to safety-related projects that are reasonably likely to assist GCRTA in meeting risk reduction program targets not met in the previous year.

II. ANNUAL REVIEW AND UPDATE

The GCRTA Public Transportation Agency Safety Plan is reviewed at least annually, and updated to reflect organizational, process, and other safety program changes. The PTASP is also updated on an as-required, event-driven basis all of which is intended to promote continuous improvement within the plan.

The responsibility to review the Plan annually, assess its effectiveness, develop and propose changes, solicit internal and external reviews, implement and control the revisions and distribute the changes rests with the Director of Safety. The review and necessary revisions include, but are not limited to the following:

- Accident investigations.
- Audit results.
- Changing trends in accident/incident data.
- New, extended, or upgraded service or routes.
- New or retrofitted rolling stock or non-revenue vehicles and equipment.
- New or rehabilitated facilities.
- New or revised emergency operating procedures.
- Major organizational changes and reassignment of functional responsibilities.
- Major changes in Safety Policies, goals and objectives.
- ODOT on-site reviews or upon written notification from ODOT.

GCRTA intends to achieve continuous improvement within the performance targets as well as in improving processes and procedures that reduce safety risk, training programs that improve skills, knowledge and abilities, & engineering and administrative controls that mitigate or eliminate hazards. This will be accomplished, for example, through lessons learned published in after-action reports following drills or exercises, in addition to risk-based internal safety assurance auditing that is comprehensive and data-driven.

The PTASP Labor/Management Safety Committee coordinates proposed revisions to the PTASP with appropriate Department Directors and other subject matter experts as needed. Members of the Executive Safety Committee also participate in the review of the plan.

The PTASP is maintained in electronic format and available to personnel on the intranet located under the Safety Management Systems tab along with other Minimum Standards for Safety documents.

Annual revision of the PTASP will require finalizing under the signature of the members of the PTASP Labor/Management Safety Committee no later than December 31st yearly. The PTASP will include a revision page and new targets. After approval of the update by the Board of Trustees, the PTASP will be submitted to ODOT for adoption and approval.

III. SAFETY PERFORMANCE TARGETS

The following Performance Targets are aligned with the National Public Transportation Safety Plan supporting the performance measures.

Measures definitions:

Major Events are severe Safety and Security (S&S) events that occur within a transit environment and can include multiple reporting thresholds and include an overlap of performance measures. Major Events include the following:

- Fatalities including suicides.
- Injuries that require immediate transport away from the scene for medical attention for 1 or more persons. Regardless of transport, hospitalization occurs for more than 48 hours, commencing within 7 days from the date of the event and/or results in a fracture of any bone (except simple fractures of fingers, toes, or nose), causes severe hemorrhages or nerve, muscle, or tendon damage, involves an internal organ, involves second- or third-degree burns, or any burns affecting more than five percent of the body surface.
- Substantial damage defined as damage to any involved vehicles, facilities, equipment, rolling stock, or infrastructure that disrupts the operations of the rail system and adversely affects the structural strength, performance, or operating characteristics of the asset, such that it requires towing, rescue, on-site maintenance, or immediate removal prior to safe operation. For the bus system, damage which meets or exceeds $25,000.
- Collisions that meet an injury, fatality, substantial damage, or evacuation threshold; Include suicides, attempted suicides, and assaults or homicides that involve contact with a transit vehicle; occur at a rail grade crossing or intersection; involves a transit revenue vehicle and the towing away of any vehicles (transit or non-transit) from the scene; involve an individual; involve a rail transit vehicle and a second rail transit vehicle; or • Includes collisions that do not involve a transit vehicle but meet a threshold.
- Evacuations of a transit facility or vehicle for life-safety reasons; or evacuations to controlled rail right-of-way (excludes evacuation to a platform, except for life safety); both transit-directed evacuations and self-evacuations that meet either of the above two criteria.
- Mainline and yard derailments and non-revenue vehicle derailments.
- Events involving a moving runaway train with or without the operator on board. These include movement of a rail transit vehicle on the mainline, yard, or shop that is uncommanded, uncontrolled, or unmanned due to an incapacitated, sleeping, or absent operator, or the failure of a rail transit vehicle's electrical, mechanical, or software system or subsystem. (Limited to revenue vehicles).

Major Event Rate is an inclusion of all S&S major events defined by the NTD above and converted using vehicle revenue miles.

Collisions is all collisions reported to the NTD.

Collision Rate is all collisions reported to the NTD converted using vehicle revenue miles.

Pedestrian Collision Rate is all collisions with a person or bicyclist as defined by the NTD converted using vehicle revenue miles.

Vehicular Collision Rate is all collisions with a motor vehicle as defined by the NTD converted using vehicle revenue miles.

Fatalities are all S&S deaths as defined by the NTD including suicides but excluding illnesses, drug overdoses, and other natural causes.

Fatality Rate is the number of NTD defined deaths converted using vehicle revenue miles.

Transit Worker Fatality Rate is all transit worker fatalities as defined by the NTD including employees, contractors, vehicle operators and other transit staff and converted using vehicle revenue miles. This is a subset of the fatality rate above.

Injuries are all injuries as defined by the NTD.

Injury Rate is all injuries as defined by the NTD converted using vehicle revenue miles.

Transit Worker Injury Rate is all transit worker injuries as defined by the NTD including employees, contractors, vehicle operators and other transit staff converted using vehicle revenue miles. This is a subset of the injury rate above.

Assaults on Transit Workers includes all assaults, regardless of injury, on transit workers as defined by the NTD.

Rate of Assaults on Transit Workers includes all assaults on transit workers as defined by the NTD converted using vehicle revenue miles.

System Reliability is major mechanical system failures as defined by the NTD.

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2025 Performance Measures and Targets

All rates expressed per 100,000 revenue miles.

Performance Measure	Mode	2021	2022	2023	3-Year Average	2025 Reduction Goal	2025 Target
1. **Major Events** (All safety & security events as defined by the NTD.)	Rail	31	29	23	27.6	2.3	25.3
	Bus	61	66	63	63.3	1.3	62
	Paratransit	12	12	13	12.3	0.15	12.15
2. **Major Event Rate**	Rail	1.09	1.01	0.83	0.97	0.07	0.9
	Bus	0.47	0.49	0.46	0.47	0.01	0.46
	Paratransit	0.35	0.3	0.27	0.3	0.02	0.28
3. **Collisions**	Rail	2	2	2	2	2	0
	Bus	51	56	53	53.3	1.3	52
	Paratransit	12	12	13	12.3	0.15	12.15
4. **Collision Rate**	Rail	0.07	0.07	0.07	0.07	0.07	0
	Bus	0.39	0.41	0.39	0.4	0.01	0.395
	Paratransit	0.35	0.3	0.27	0.3	0.02	0.28
5. Pedestrian Collision Rate	Rail	0	0	0	0	0	0
	Bus	0	0.02	0.04	0.02	0.02	0
	Paratransit	0	0	0	0	0	0
6. Vehicular Collision Rate	Rail	0.07	0.03	0.07	0.07	0.07	0
	Bus	0.37	0.36	0.34	0.36	0.01	0.35
	Paratransit	0.34	0.3	0.25	0.29	0.02	0.27
7. Fatalities	Rail	1	0	0	0.3	0.3	0
	Bus	1	2	1	1.3	1.3	0
	Paratransit	0	0	0	0	0	0
8. Fatality Rate	Rail	0.04	0	0	0.01	0.01	0
	Bus	0.01	0.01	0.01	0.01	0.01	0
	Paratransit	0	0	0	0	0	0
9. Transit Worker Fatality Rate	Rail	0	0	0	0	0	0
	Bus	0	0	0	0	0	0
	Paratransit	0	0	0	0	0	0
10. **Injuries**	Rail	12	11	11	11.3	0.15	11.15
	Bus	142	143	130	138.3	4.3	134
	Paratransit	25	18	25	22.7	2.35	20.35
11. **Injury Rate**	Rail	0.42	0.38	0.4	0.4	0.01	0.39
	Bus	1.1	1.05	0.96	1.04	0.04	1
	Paratransit	0.72	0.45	0.52	0.55	0.05	0.5
12. Transit Worker Injury Rate	Rail	0.04	0.1	0.18	0.11	0.04	0.07
	Bus	0.16	0.1	0.11	0.12	0.01	0.11
	Paratransit	0.17	0.1	0.06	0.1	0.02	0.08
13. **Assaults on Transit Workers***	Rail	n/a	n/a	12	n/a	n/a	n/a
	Bus	n/a	n/a	75	n/a	n/a	n/a
	Paratransit	n/a	n/a	3	n/a	n/a	n/a
14. **Rate of Assaults on Transit Workers***	Rail	n/a	n/a	0.43	n/a	n/a	n/a
	Bus	n/a	n/a	0.55	n/a	n/a	n/a
	Paratransit	n/a	n/a	0.06	n/a	n/a	n/a
15. System Reliability	Rail	49	298	145	164	57.5	106.5
	Bus	877	889	740	835	47	788
	Paratransit	38	58	48	48	5	43

Risk Reduction Measures are in **bold** and each are required to have a target less than the corresponding 3-year avereage

*Reporting began in 2023 and a target will be established after 3 years of data are available in NTD

IV. SAFETY PERFORMANCE TARGET COORDINATION

The Greater Cleveland Regional Transit Authority (GCRTA) works in accordance with its local Metropolitan Planning Organization (MPO), the Governing Board of the Northeast Ohio Areawide Coordinating Agency (NOACA). GCRTA's Programming and Planning Department communicates any and all performance targets to NOACA.

GCRTA will select safety performance targets on an annual basis and makes this information available to NOACA, as required under the eNEO 2050 long-range plan and the 2024-2027 Transportation Improvement Program (TIP). GCRTA will also submit this to the Ohio Department of Transportation under the requirements of State Safety Oversight. NOACA strategically utilizes this information in order to make investment and policy decisions to achieve national performance goals. It establishes safety performance measure requirements for the purpose of carrying out the State's Highway Safety Improvement Plan and to assess fatalities and serious injuries on all public roads.

Target Type	Entity Name	Transmission Target Date
Targets Transmitted to the State	Ohio Department of Transportation (ODOT)	February 28th of following year
Targets Transmitted to the Metropolitan Planning Organization	Northeast Ohio Areawide Coordinating Agency (NOACA)	February 28th of following year

1.0 SAFETY MANAGEMENT POLICY

1.1 Safety Management Policy Statement

The Greater Cleveland Regional Transit Authority (GCRTA) was organized to provide safe, reliable, clean and courteous public transportation services to all users. Safety is a primary concern that affects all levels of GCRTA activities including: operations; maintenance; planning; design; construction; procurement; testing; and training for all modes of transportation. Therefore, all GCRTA personnel are charged with the responsibility of promoting the safety and security of passengers, employees, and the general public who come in contact with GCRTA transportation systems.

The safety and security of our customers and our employees are GCRTA's greatest responsibility. In addition, all employees and contractors of the GCRTA are expected to conduct their duties in a safe manner that will prevent collisions, reduce injuries, and avoid property damage.

Each employee must operate safely by using equipment, tools, and materials properly, and be familiar with work rules and procedures for their areas of responsibility. Each employee shall take an active role in the identification and reporting of hazards. Supervisors shall actively participate in the assessment and resolution of hazards and shall fully cooperate with Safety staff to eliminate or control hazards in all areas of GCRTA transportation systems.

GCRTA Management will provide leadership in promoting safety throughout the organization. The General Manager/Chief Executive Officer and the executive staff will be continually and directly involved in formulating, reviewing, and revising the Safety Policy and safety goals and objectives. GCRTA management will provide the authority, support, and resources – financial and material – to establish and maintain high safety standards in operations, maintenance, and training throughout the GCRTA.

Safety is promoted through adherence to our Safety Management System (SMS) with its pillars of *Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion*. Management across the organization is expected to adhere to the GCRTA *SMS Framework* and understand the pillars of our SMS, which is appropriately scaled to the size, scope, and complexity of the GCRTA. Executive Management is committed to ensuring staff obtains the needed training to enforce our SMS.

Every GCRTA employee and contractor shall comply with the provisions of the Agency Safety Plan and shall fully cooperate with Safety staff in achieving GCRTA's safety goals and objectives.

The Greater Cleveland Regional Transit Authority is committed to:

- Instilling a just Safety Culture that fosters safe practices, encourages effective employee safety reporting and communication, and values the SMS as equally as other organizational management systems.
- Supporting the SMS with the appropriate financial resources.
- Establishing safety as the primary responsibility of all employees.
- Holding departments/districts responsible for their safety performance.
- Establishing a culture whereby management leads by example.

- Engaging in emerging risk/hazard identification and analysis in order to eliminate or mitigate risks.
- Ensuring no action will be taken against any employee who discloses a safety concern according to the *GCRTA Non-Punitive Hazard Reporting Policy* and ensuring open, honest communication will be a result of any concern brought forth.
- Complying with federal, state, and GCRTA safety-related requirements, rules, and standards.
- Ensuring all departmental staffs are provided with appropriate safety-related information and training, are competent in Safety Management matters, and are allocated only tasks commensurate with their skills.
- Measuring safety performance against SMART goals.
- Continuously improving the safety performance through data analysis, informed decision-making, and appropriate resource allocation.
- Ensuring external systems and services supporting GCRTA meet GCRTA safety standards.

Lastly, GCRTA is committed to protecting the environment as it provides public transit services to Northeast Ohio. The Authority utilizes sound business practices that measure and improve our environmental and sustainability performance and makes the following environmental commitments:

- Communicate and advance the use of environmental practices throughout GCRTA.
- Comply with all applicable local, state, federal, and other environmental laws, regulations, standards and monitoring requirements.
- Incorporating environmental responsibility into business operations by planning for environmental protection, reviewing and developing policies, providing resources, and reviewing and auditing performance.
- Prevention of pollution and conservation of resources, by reducing energy and water consumption, increasing reuse and recycling, and procuring sustainable products and technologies.

1.2 Safety Management Policy Communication

The ability to communicate safety information in a timely and professional manner is important for GCRTA's Public Transportation Agency Safety Plan to function as intended. The Safety Management Policy Statement and this Public Transportation Agency Safety Plan will be printed in manual form and distributed across the organization to be referenced by management, union lead personnel and others. Additionally, both the Safety Management System Framework and the PTASP will be published on the GCRTA Intranet for all employees to utilize.

Documents that set forth the GCRTA Public Transportation Agency Safety Plan and the implementation of the Safety Management System (SMS), as well as results from SMS processes and activities will be stored on the shared drive (n:drive) accessed only by members of the Safety Department and backed up according to information systems procedures. Additionally, the PTASP and the SMS Framework documents are itemized work products of the Safety Department records retention (RC-2) schedule to be maintained for three years after creation. All requests for such documents made by FTA, ODOT SSO or any other Federal entity will be fulfilled electronically by the Safety Department and/or the Legal Division of GCRTA.

1.2.1 Intranet

The GCRTA Intranet provides a means to communicate with all employees effectively. The "Safety Management System" page on the GCRTA Intranet provides information pertaining to:

- Safety Mission Statement.
- Minimum Standards for Safety.
- Champions of Safety.
- Safety Data Sheets.
- Standard Operating Procedures.
- Emergency & Environmental Procedures (including the Emergency Operations Plan).
- Rulebooks.
- Job Hazard Analysis.
- Committee Meeting Minutes and Presentations.

Standard Operating Procedures (SOPs) are formatted to the ISO 14001 standard and posted on the GCRTA Intranet for system wide access.

In addition to the Safety Management System page on the Intranet, Safety Management Policy is communicated via safety committees throughout the Authority.

Safety committees within GCRTA consist of an Executive Safety Committee, a PTASP Labor Management Safety Committee and Rail, Bus and Paratransit District Safety Committees. In addition, the Bus Oversight Safety Committee Meeting is held on a bi-monthly basis.

1.2.2 Executive Safety Committee

The scope of the Executive Safety Committee encompasses the entire organization of the GCRTA. The Executive Safety Committee is responsible for formal reviews and disposition of safety concerns, which cannot be satisfactorily resolved by individual departments because of cost or authority reasons. The objective of the Executive Safety Committee is to provide a focal point to collect and analyze relevant information in order to resolve major safety concerns and to improve the GCRTA safety performance record.

The Executive Safety Committee interfaces with all GCRTA departments. The Executive Safety Committee is provided with minutes, reports and other information pertaining to the Rail Oversight and the District Safety Committees' activities and with Safety Department analyses, reports, and data to support Executive Safety Committee activities. The Committee and its members have the authority to designate other attendees as necessary to ensure that adequate representation is available for the conduct of meetings.

The General Manager/Chief Executive Officer and the Deputy General Manager – Legal Affairs function as Co-Chairs of the Committee and the Director of Safety is designated as the Vice Chair of the Committee.

The Executive Safety Committee consists of the following key staff members:

- General Manager/Chief Executive Officer, Accountable Executive - Co-Chair
- Deputy General Manager - Legal Affairs, Chief Safety Officer – Co-Chair
- Director of Safety - Vice Chair
- Safety Department Administrative Assistant
- Deputy General Manager - Operations
- Deputy General Manager - Engineering and Project Management
- Director - Office of Management and Budget
- Manager of Safety
- Environmental Health and Safety Specialists
- Safety Data & Compliance Analyst
- Director - Engineering and Project Development
- Director - Fleet Management
- Director – Information Technology
- Director - Power & Way
- Director - Procurement
- Director - Risk Management
- Director - Security/Chief of Police

- Director - Service Management
- Director - Service Quality
- Director - Training & Employee Development
- District Director - Hayden
- District Director - Paratransit
- District Director - Rail
- District Director - Triskett
- ATU - Local 268, President

All Executive Safety Committee meetings include the “Champions of Safety” announcements, awards, and nominations. These are a fundamental support of SMS at GCRTA. Outstanding employees who exemplify safety culture at the Authority are invited to attend the Executive Safety Committee meeting, whereby they are presented with an award by their Director or managers in attendance. Accounts of their safe actions are described to the committee, as well. Photos of the Champions of Safety are posted to the Safety Management System Intranet site as well as on District TV as formatted by the Marketing Department. Following the awards, the following month’s Champions of Safety nominations are read aloud to the committee and voted upon. For a more detailed description of Champions of Safety, please see Section 4.2.11.

1.2.3 District Safety Committees

District Safety Committees include the Rail Equipment Facility Safety Committee, Rail Service Safety Committee, Rail Transportation Safety Committee, Central Bus Maintenance Facility Safety Committee, Hayden District Safety Committee, Paratransit Safety Committee, Triskett District Safety Committee, and the Woodhill Safety Committee. These labor/management committees, that are composed of at least 50% labor with voting rights, meet monthly to present and discuss safety suggestions and concerns submitted by employees. See committee framework matrix below. Most suggestions and problems discussed are resolved by actions of the departments represented on the committee. Those safety matters that cannot be resolved at the committee level are submitted to the Executive Safety Committee for resolution.

The duties of safety committee chairs are to arrange for a meeting place, notify members of the meeting, develop an agenda with action register, take action on suggestions that are within the area of the chair’s authority, and forward unresolved matters to the Executive Safety Committee. The chair is also responsible for the administration and coordination of the Hazard Resolution Process for Hazard Reports submitted by employees for that location. The Committee Secretary prepares, distributes, and posts minutes on the GCRTA Intranet.

Safety Committee members are responsible for:

- Attending all safety meetings.
- Reporting unsafe conditions at any time.
- Review Hazards and On the Job Injuries (OJI).
- Develop/Review Job Hazard Analysis (JHA).

  (See Guide “6 Easy Steps For An Effective Job Hazard Analysis” and the GCRTA JHA Template on following pages.)
- Review Emergency Plans and Conduct Evacuation Drills.
- Conduct Safety Walks/Audits.
- Develop Safety Improvement Topics/Teams.
- Soliciting input from others, rendering opinions, and acting on safety ideas and suggestions for the improvement of safety.
- Providing leadership and setting the example in performing work safely at all times.
- Influencing others to work safely.
- Promoting interest in contests, safety drives and incentive programs, etc.

Safety Committee Framework

	CBMF	CRMF	Hayden	Paratransit	Rail Operations	Service Bldg.	Triskett	Woodhill	BOSCO
Management Positions									
Director	X	X	X	X	X	X	X		
Transportation Mgr.			X	X	X		X		
Inventory Mgr.	X								
Equipment Mgr.	X	X	X	X			X		
Electronic Repair Mgr.								X	
Fleet Eng. Mgr.									
Facilities Mgr.	X	X	X	X	X		X	X	
Salary Supervisor						3		2	
Revenue Mgr.				X					
Director Fleet Mgmt.									X
Safety Dept. Rep.									X
Hayden Director									X
Paratransit Director									X
Triskett Director									X

ATU Positions									
Mechanic	X	X	X	X			X		
Inventory	X	X	X			X	X		
Hostler	X		X	X			X		
Facilities Maintainer	X	X	X	X	X		X		
Janitorial	X	X	X	X	X	X	X	X	
Vehicle Servicer		X							
Triskett Operator							X		X
Hayden Operator			X						X
Rail Operator					X				X
Paratransit Operator				X					
Dispatcher			X		X		X		
Reservationist				X					
Fare Box Repair/Revenue				X					
Service Quality					X			X	
Substation Maintainer						X			
Signals Maintainer						X			
Track Maintainer						X			
Line Maintainer						X			
Shelter Repairman								X	
Electronic Repairman								X	
Printer								X	
Sign Shop								X	
Union Officer									X

6 EASY STEPS

FOR AN EFFECTIVE JOB HAZARD ANALYSIS

1

Select jobs and processes to analyze

Prioritize those with high injury and illness rates, recent accidents or nearmisses, potential for catastrophe, complex tasks, tasks that require safety permits, and recent changes to processes or personnel.

Observe the task and list its steps

Break the task down into its core steps and list each one. Also consider start-up, shutdown, and maintenance procedures.

2

3

Describe the hazards in each step

Carefully consider all the hazards that could be associated with each step of the task. Make sure to consider hazards resulting from the work environment as well as those produced by the task itself.

Develop corrective measures

Follow the hierarchy of controls to develop a method to reduce or eliminate the hazards.

4

5

Write safe job procedures

Describe safe work practices and list any PPE or special equipment required. Review safe job procedures with employees and keep them in an accessible location.

Certify, document, and keep records

Retain records of your job hazard analyses and review periodically. If employees will be wearing PPE, make sure to document it in writing.

6

Job Hazard Analysis Form

JHA Number _____ Title of JHA _____Location (Facility) _____

Date Completed _____Date Revised _____Date Reviewed _____

Name of Person Completing JHA_____Signature_____

Basic Job Steps	Hazards Present to Each Job Step	Hazard Controls & Personal Protective Equipment

1.2.4 Bus Oversight Safety Committee

The Bus Oversight Safety Committee is charged with overseeing procedures and processes that directly and indirectly affect the safe operation of the Bus and Paratransit Systems. The Bus Oversight Safety Committee shall review and make recommendations for improvements in training for Operators, Service Quality Field Supervisors, Vehicle Maintenance, and District Facility Maintenance. They shall review and provide recommendations for improvements in operations and maintenance procedures and practices including contractor conduct within the districts tire shops, road calls and pre-trip inspections of coaches.

Changes to the bus system's configuration shall be reviewed by the Bus Oversight Safety Committee for information purposes and to make sure all affected areas remain in compliance with the PTASP and Configuration Management.

The membership of the Bus Oversight Safety Committee shall be represented by Operations, Training, Vehicle Maintenance, Fleet Management, Transit Police, Service Quality and Safety. The Executive Safety Committee shall oversee the Bus Oversight Safety Committee and shall hear any disputes arising out of the Bus Oversight Safety Committee findings and recommendations. This labor/management committee is composed of at least 50% labor with voting rights. See committee framework matrix above.

The Bus Oversight Safety Committee will meet on a bi-monthly basis. The location of the meeting will rotate to ensure that each district is properly represented. Districts included in the rotation schedule include Central Bus Maintenance Facility, Hayden, Paratransit and Triskett. The rotating schedule will allow the Bus Safety Oversight Committee to perform audits and facilities inspections on each property and will help inspire changes concerning operations, vehicle maintenance, facilities maintenance as well as safety procedures and culture. Remote online meetings are acceptable in lieu of onsite depending on environmental status (e.g. pandemics).

1.3 Authorities, Accountabilities, and Responsibilities

1.3.1 Accountable Executive, General Manager/Chief Executive Officer

The Accountable Executive for the Safety Management System is responsible for ensuring that the agency's SMS is effectively implemented throughout the agency's transit system, as well as ensuring action is taken to address substandard performance in the agency's SMS. The Accountable Executive holds the Chief Safety Officer and Director of Safety accountable for designing a Public Transportation Agency Safety Plan that continuously works to maintain and improve safety performance and an effective Safety culture. The Accountable Executive allocates financial resources to address pressing safety needs, and provides the Board of Trustees with an accurate and ongoing assessment of safety performance and culture at GCRTA. The Accountable Executive champions the Public Transportation Agency Safety Plan, SMS, and the promotion of Safety culture, leads as Co-Chair of the Executive Safety Committee, and requires that all relevant safety-related information be communicated and used in decision-making processes.

1.3.2 Chief Safety Officer, General Counsel, Deputy General Manager for Legal Affairs

The Chief Safety Officer is designated by the Accountable Executive, holds a direct line of reporting to the Accountable Executive, and is adequately trained. The Chief Safety Officer oversees the Strategic Plan initiatives related to safety culture and safety performance. This individual also provides guidance to the Director of Safety and the Safety Department, leads as Co-Chair of the Executive Safety Committee, champions SMS and PTASP, and promotes a positive safety culture.

1.3.2.1 Organizational Charts

See Appendix B for the management structure including the Board of Trustees, General Manager/Chief Executive Officer, Executive Management Team, Director of Safety, and the Chief Operating Officer/Operations Division Directors.

1.3.3 Director of Safety

The Director of Safety is responsible for directing the operations within the Safety Department. The Director of Safety designs and implements initiatives to support safety guidelines and GCRTA operations. Responsibilities also include evaluating safety processes and issues at all levels, and formulating solutions to improve system safety effectiveness. The Director of Safety directs Safety personnel, directs the investigation of accidents and evaluates GCRTA facilities for compliance with federal, state and local safety standards. The Director oversees the utilization of the Safety Management System and implementation of the PTASP. The Director of Safety promotes safety campaigns and safety award/incentive programs in an effort to reduce passenger, employee and vehicle accidents, injuries and illnesses. The Director of Safety Department facilitates the activities of the Executive Safety Committees. The Director also:

- Serves as the principal GCRTA liaison with the State Safety Oversight Agency of the Ohio Department of Transportation.
- Strives to improve the safety culture and coordinates safety activities of the Districts, department directors, and division managers to ensure implementation of safety activities throughout the GCRTA.
- Serves on the PTASP Labor Management Safety Committee, identifies and reports on SMS deficiencies, monitors all performance targets for deficiencies and status, addresses any specific internal safety review requirement established by ODOT, leads assessment of risk for targets not met, recommends mitigations for any risk deemed unacceptable.
- Participates in various committees including District Safety Committees and the Executive Safety Committee.
- Analyzes and interprets statistical data concerning occupational illnesses, injuries and accidents to identify trends and recommend appropriate corrective actions.
- Conducts root cause analyses of incidents and collisions.
- Develops recommendations from root cause analyses and tracks corrective actions to closure.

- Acts as single point of contact for communication with FTA regarding PTSCTP information and ensures compliance with § 672.21 Records including the submission of semiannual reports.
- Participates in inspections and audits.
- Participates in activities of related safety and transit professional organizations to keep abreast of safety program developments and benchmark against peer organizations.
- Coordinates with other GCRTA Departments to integrate the safety component in equipment, facilities and processes.
- Coordinates with the Training Department to implement safety training programs and to coordinate the incorporation of safety concepts and information in the District training programs.
- Works with Human Resources to assure that safety is encompassed in the hiring and recruitment practices of the GCRTA.
- Monitors GCRTA compliance with federal, state, and local environmental laws.

1.3.4 Manager of Safety

The Manager of Safety is responsible for developing overall safety plans for the GCRTA, as well as specific procedures and manuals. The Manager of Safety is responsible for developing safety performance standards, auditing adherence to these standards, and providing the information learned to the appropriate members of management. In addition, the Manager of Safety is responsible for:

- Providing guidance and input on training matters of occupational safety, health and fire protection to all District Departments.
- Overseeing the hazardous substances and waste.
- Overseeing occupational safety and health data with the Environmental Health and Safety Specialists.
- Overseeing fire protection audits throughout GCRTA departments for all GCRTA transportation systems, facilities, equipment, personnel and procedures.
- Tracking status of safety critical open items.
- Tracking corrective actions until closed.

1.3.5 Environmental Health and Safety Specialists

The Environmental Health and Safety Specialists are responsible for system safety functions including, but not limited to:

- Design reviews and incorporation of safety requirements into contract documents.
- Implementation and enforcement of the PTASP with District Departments and other GCRTA Departments.
- Occupational safety and health and fire safety inspections and audits.

- Life safety evacuation drills.
- Performing GCRTA safety ride checks and field observations.
- Review of operations and maintenance reports for safety impact and hazard identification.
- Incorporation of safety requirements into operating plans, procedures, and training programs.
- Participation on safety committees and boards on the behalf of the Director of Safety.
- Defining and proposing required safety policies, plans, rules and procedures.
- Maintenance of the PTASP.
- Safety inspections and audits throughout GCRTA departments related to facilities, equipment, personnel and procedures.
- Routing safety data and identified hazards for review and analysis.
- Investigation of accidents according to AP 002.
- Assists in coordination of all environmental work; UST requirements, Hazardous and Non-hazardous waste contracts, wastes minimization plans, spill prevention, and regulatory requirements.
- Assist State Safety Oversight Agency with FTA mandated incident response, auditing, Risk Based Inspections, policies and procedures for inspection access and data collection.

1.3.6 Safety Data & Compliance Analyst

The Safety Data and Compliance Analyst is responsible for system safety functions including, but not limited to:

- Maintaining and communicating the OSHA Log of recordable injuries for all GCRTA.
- Serving as an advisor to local safety committees and supporting executive safety committee meetings with safety information updates.
- Analyzing and interpreting statistical data concerning occupational illnesses, injuries and accidents to identify trends and recommending appropriate corrective actions.
- Facilitating the tracking status of open safety items and corrective actions to closure and performing assurance audits throughout GCRTA as directed.
- Coordinating Hazard Reporting and the status of hazards on the Safety Department log for use at ESC and reporting to State Safety Oversight.

1.4 Employee Safety Reporting Program

The goal of safety promotion and reporting at GCRTA is to encourage safety through effective communication and training. This must be augmented by proactively identifying risk through data analysis. To promote safety, GCRTA will adjust safety communication as needed, express praise for milestones and accomplished SMS tasks, and gain commitment from relevant parties when

safety risks have been identified and needs addressed. For example, Safety training will not only address front-line employees, but also Managers/Supervisors and Executive Management. Training will be up-to-date and provide each level of employee with the tools needed to make comprehensive decisions.

Reporting encourages employees to provide accurate information on known safety hazards. The ability to communicate safety risk information in a timely and professional manner is important for GCRTA to function as intended. All risks reported should:

- Be specific with regard to the risk and the way it affects GCRTA operations.
- Be directed at those who can mitigate the risks and those the risk affects.
- Demonstrate any limitations that mitigations will impose.
- Be based on fact, not fault.

For more information regarding reporting and the management of hazards, refer to Section 2.2.

1.5 Emergency Management Procedures

1.5.1 Emergency Management

The GCRTA Emergency Operations Plan (EOP) describes GCRTA's process to ensure that fast, controlled, and predictable responses can be made to various types of emergencies that may occur within the GCRTA system. The ability to respond quickly and in an organized manner is vital to the continuation of transit service during a special event, emergency, or during the recovery from a catastrophic incident, including but not limited to:

- Fire
- Flooding
- Hazardous material spill
- Medical emergency
- Severe weather
- Transit related accidents
- Active shooters
- Acts of terrorism

The EOP also identifies how municipal and county agencies can both support, and obtain support from, GCRTA in addressing transit-specific and area-wide emergencies.

GCRTA's service area lies within Cuyahoga County, including the City of Cleveland and 58 towns and villages in the surrounding suburban communities. As such, GCRTA's primary regional emergency response planning relationship is with Cuyahoga County. The Cuyahoga County, Division of Emergency Services coordinates day-to-day emergency planning and response activities with GCRTA. GCRTA also works with the City of Cleveland, Department of Public Safety

(DPS). While the City of Cleveland maintains its own response capabilities and protocols, and its own Emergency Operations Plan, the city also coordinates with Cuyahoga County regarding emergency management planning and response.

The Safety Department is principally responsible for the coordination of fire protection and life safety with fire departments and other emergency service agencies to provide for effective interaction between GCRTA and the agencies. Liaison with law enforcement agencies is the responsibility of the GCRTA Chief of Police.

Abnormal and emergency conditions may develop which interfere with efficient passenger movement. An emergency may involve fire, smoke, collision, power failure, structural damage, derailment, a disabled bus or train along a grade crossing, or other circumstances.

Procedures have been developed and incorporated into the Bus Operator Handbook, Rail Operations Rule Book, ICC Procedures, and other documents for the safety of passengers during an emergency event. Evacuations due to incidents that may expose passengers to hazardous conditions are coordinated through the Integrated Communications Center and designated supervisor on the scene.

GCRTA management of an emergency event or incident is based on the principles of the Incident Command System (ICS). Using the ICS allows emergency response agencies to communicate with Service Quality Supervisors and/or the Integrated Communications Center. The structure of the ICS is as simple as a single Service Quality Supervisor responding to an incident, to the activation of an Incident Command Center. In each case, a Service Quality Supervisor acts as the GCRTA on-site Incident Commander (IC) when assistance from an emergency response agency, or the Safety Department is not required. Once on scene the GCRTA Safety Department has the ability to assume Incident Command if Safety deems necessary. All GCRTA employees responding to the scene report to the on-site designated Incident Commander so that all participants and their expected actions can be coordinated. When an incident requires response from fire departments, emergency medical services, police, and other emergency services, the GCRTA IC becomes the liaison between GCRTA and the emergency response agency IC. The GCRTA IC coordinates closely with the representatives from the outside agencies to help ensure the safety of customers, GCRTA and emergency response personnel, and the general public; and to make certain that the appropriate GCRTA resources are available at the incident scene.

The Integrated Communications Center (ICC) serves as the central management center for all bus and rail incidents. The ICC is staffed 24 hours a day, seven (7) days a week. The ICC is responsible for:

- Implementing the appropriate response plan when acting as incident commander.
- Requesting assistance from outside emergency response agencies for fire, medical, police, and evacuation emergencies.
- Notifying Transit Police, Safety Department, appropriate GCRTA management personnel and, external agencies, as appropriate.
- Dispatching Service Quality Supervisors and Power & Way Personnel to the scene and other designated locations, as required.
- Communicating and controlling all bus and train movements, and adjusting service schedules, as required.

- Activating the appropriate emergency systems, such as power removal.
- Coordinating requests for additional GCRTA resources, i.e. equipment and personnel.
- If the Safety Department reports their intention to respond to the scene, the Safety Department representative may assume incident command upon arrival. Prior to the arrival of the Safety Department representative, the Control Center Supervisor shall take steps to preserve the scene.
- Preserving the scene to ensure involved GCRTA employees, vehicles, train cars, buses, any involved RTA and non-RTA property remain at the scene and not be moved or any aspect of the equipment or car be altered, unless to prevent injury or if instructed by emergency response agencies.

The GCRTA Emergency Operations Plan details GCRTA's emergency planning, preparedness, and response capabilities. The Chief of Police or designee leads the periodic review of the EOP and emergency procedures with all affected GCRTA departments and external agencies, as appropriate, and as required as a result of evaluations of drills and actual incidents. The Director of Safety ensures all EOP subcomponent District Emergency Plans are reviewed and updated at the District Safety Committee level and communicated through use of the SMS intranet. Any proposed revisions are coordinated through the configuration management process.

Periodic emergency preparedness drills are planned and conducted to ensure the:

- Adequacy of emergency plans and procedures.
- Readiness of GCRTA personnel to perform under emergency conditions.
- Effective coordination between GCRTA and emergency response agencies.

The drill schedule is coordinated between Transit Police, Service Quality, Operating Districts, and the Safety Department.

Drills and exercises are divided into two distinct categories in accordance with GCRTA Progressive Exercise Program Plan:

- Discussion-based exercises include seminars, workshops, tabletops and games. These types of exercises typically focus on existing plans, policies, mutual aid agreements, and procedures. Thus, they are effective tools for familiarizing agencies and personnel with current or expected response capabilities. They may also provide forum for developing new plans and procedures. These types of exercises tend to focus on policy-oriented issues. In conducting discussion-based exercises, facilitators and/or presenters usually lead the discussions, helping to keep participants on track and ensure that objectives are met.
- Operations-based exercises include drills, functional exercises, and full-scale exercises. These types of exercises are used to validate the plans, policies, agreements, and procedures solidified in discussion-based exercises. Operations-based exercises can clarify roles and responsibilities, identify gaps in resources needed to implement plans and procedures, and improve individual and team performances.
- Common characteristics include actual response, mobilization of equipment and resources, and commitment of personnel, usually over an extended period of time. These exercises may involve single and multiple agencies and jurisdictions.

Drills are evaluated against the objective established for the drill/exercise. All drills are followed by after-action reports to document lessons learned and actions needed to improve GCRTA emergency response capabilities. For drills led by external GCRTA partners, an after-action review will be conducted to focus on GCRTA safety and security elements. The report of the findings is provided to the Executive Safety Committee. Action items are tracked by the Safety Department to completion using the SMART log.

The Cuyahoga County Emergency Operations Center (EOC) primarily delivers classroom and tabletop exercises for emergency management as it relates to expectant major weather or disastrous emergencies that involve four or more agencies. The County hosts these meetings for large-scale planning, in which the Secret Service, Cleveland Police, County Sherriff, GCRTA TP, FBI, and DHS is involved. All are privy to more high-level decision-making than other authorities or agencies. The aforementioned groups work collaboratively in preparation for emergency events. The County EOC otherwise maintains annual meetings with all stakeholders.

The City of Cleveland EOC delivers classroom and tabletop exercises to all local stakeholders for emergency incidents. The City EOC also hosts regular classroom briefings in preparation for weekly emergency events. Representatives of GCRTA Transit Police and Service Quality attend for special events planning. Routine tabletop exercises are held by the Cleveland EOC once per year.

GCRTA Transit Police invites other emergency management agencies for major trainings such as bomb disposal, response teams, and active shooter, as well as other TSA-sponsored and GCRTA-coordinated trainings. These exercises are coordinated with the help of other emergency agencies, such as the Cleveland Fire Department.

GCRTA has adopted and implemented the National Incident Management System (NIMS) and the National Response Framework (NRF) as essential priorities of our response capability and has enhanced those capabilities through additional Incident Command System (ICS) training for specific leadership and other designated employees mandating online or classroom instruction and certification in the following subjects:

- ICS-100: Introduction to the Incident Command System
- ICS-200: ICS for Single Resources and Initial Action Incidents
- ICS-300: Intermediate ICS for Expanding Incidents
- ICS-400: Advanced ICS
- ICS-700 Introduction to the National Incident Management System
- ICS-800: National Response Framework, An Introduction

All GCRTA transportation and maintenance personnel undergo emergency response training to ensure they have a full understanding of their role and responsibility during an emergency incident. The level of training is based on their anticipated role during the incident. At a minimum, training is provided on the emergency plans and procedures that the employee may be required to implement, and on any specialized equipment.

Training to familiarize fire, rescue, and other emergency service personnel with special transit system requirements is conducted by the Training Department, Transit Police, and the Transportation and Maintenance Departments. This includes initial hands-on training regarding rail lines, rail and bus vehicles, or facilities that present unique hazards.

Additionally, familiarization tours are held of new transit facilities and buses. Refresher training is coordinated with the various agencies to ensure they remain knowledgeable in the unique hazards that transit operations present, including but not limited to accessing the right-of-way and the hazards posed by traction power.

Transit police is the liaison for all emergency services at GCRTA. All 911 phone calls from GCRTA phones go directly to Transit Police, who then communicates with local jurisdictions to dispatch necessary resources. Transit Police is also the primary liaison with law enforcement jurisdictions during Emergency Management situations.

Integral to the EOP are the individual District Emergency Plans and the Spill Prevention Control & Countermeasure Plans (SPCC). The Emergency Plans describe procedures to be followed by employees to eliminate or minimize harm to persons, damage to property, and disruptions in service in the event of an emergency. Plans are developed through the coordinated efforts of the Transportation, Equipment, Facility Maintenance, Safety, and Transit Police Departments. It is the responsibility of the District and respective safety committee under the guidance of the Safety Department to update plans whenever necessary. At a minimum, plans are reviewed annually by the Safety Committees to ensure accuracy, functionality and preparedness.

In accordance with federal requirements, all operating districts have a SPCC and periodically review and evaluate their Plan for any change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for an oil discharge, including, but not limited to:

- Commissioning of storage containers.
- Reconstruction, replacement, or installation of piping systems.
- Construction or demolition that might alter secondary containment structures.
- Changes of product or service, revisions to standard operation, modification of testing/inspection procedures, and use of new or modified industry standards or maintenance procedures.

Amendments to the Plan made to address changes of this nature are referred to as technical amendments and must be certified by a registered professional engineer. Non-technical amendments (personnel changes, phone number changes, etc.) are done by the district. The District Director is responsible for initiating and coordinating revisions to the SPCC Plan. The Safety Department is responsible for coordinating a review and certification of all Plans by a registered professional engineer at least once every 5 years.

2.0 SAFETY RISK MANAGEMENT

2.1 Safety Risk Management Process

The Safety Department collaborates with all GCRTA departments to ensure adequate safety control measures are incorporated into daily and special operations, and that efforts are taken to resolve significant safety issues.

2.1.1 Safety Department Activities

The Safety Department is responsible for conducting comprehensive investigations of derailments, collisions, passenger and employee injuries/illnesses and fatalities, major fires, and other serious incidents that may occur. In addition, Safety conducts formalized hazard assessments of systems, facilities and equipment. The District safety committees assist the Safety Department in safety reviews and audits, processing Hazard Reporting Forms and in hazard identification throughout GCRTA.

The Safety Department is responsible for the development and implementation of a health and safety program to protect GCRTA employees in the work environment and passengers in the transit system's environment. This function is focused primarily on facilities, construction, maintenance, operating procedures, and the avoidance of hazards through compliance with instruction and regulations and the use of prescribed safety devices. Therefore it conducts activities that concentrate on passenger and employee protection efforts, personal safety attitudes, and accident/incident data collection and analysis.

Another responsibility is minimizing hazards in the design and operation of the GCRTA systems. The Safety Department activities are focused on the identification and resolution of system safety hazards and on the inclusion of system safety requirements in the design and development of system elements such as facilities, rail cars, buses, systems, equipment, procedures and training.

The following summarizes the general responsibilities of the GCRTA Safety Department:

- Assists with identification of hazards associated with the system.
- Evaluates identified hazards and design action to eliminate or minimize and control the hazards.
- Incorporates safety into system test, operation and maintenance procedures.
- Develops safety design criteria for incorporation into system design.
- Evaluates rail system operations for incorporation of adequate safety measures.
- Conducts hazard analyses of plans and specifications for new equipment and construction.
- Maintains system safety records in accordance with the Records Retention Schedule.
- Manages and implements the Public Transportation Agency Safety Plan.
- Performs investigations of derailments, collisions, non-revenue vehicle collisions, passenger or employee injuries or fatalities, fires, major equipment damage, and other major incidents and accidents that occur.
- Conducts safety assurance audits.
- Monitors compliance with federal, state, and local safety codes and regulations and inspections.
- Promotes employee motor vehicle safety.
- Promotes accident prevention.

- Recommends safe and adequate tools and personal protective equipment.
- Supports fire prevention and control and emergency preparedness.
- Inspects use of guardrails, warning alarms, signs, and machine guards in the workplace.
- Monitors for adequate lighting and noise levels in the facilities.
- Inspects facility cleanliness and housekeeping practices.
- Maintains a system to monitor the license status for all employees.
- Compiles and analyzes occupational accident information; design and implement programs to reduce incidence and severity of occupational injuries.
- Complies with provisions of State Safety Oversight Program as administered by the Ohio Department of Transportation.
- Maintains electronic files of Safety Data Sheets (SDS) on the Safety Management System page of the GCRTA intranet.
- Coordinates safety-related activities to ensure that safety information is passed to all sections of the organization. Examples of information include collision and passenger accident data, occupational injury and illness loss data, safety committee meeting minutes, and safety inspection reports.
- Represents the GCRTA at professional safety meetings and seminars and ensure that the information gained at these outside events is shared with other divisions of the GCRTA as appropriate.
- Conducts or participates in accident / incident investigations, in accordance with the GCRTA Administrative Procedure 002, Revenue Vehicle Accident Investigation.
- Exchanges safety data with other transit systems.
- Reviews maintenance records to ensure that proper documentation is being recorded.
- Develops corrective actions and recommendations related to accidents, unacceptable hazardous conditions, and other safety issues uncovered through analyses and failure report data.
- Participates in training activities to ensure that safety elements are part of the curriculum, and that safety information is disseminated to all affected employees.
- Identifies and assists in investigating and resolving hazards, including those related to maintenance, operation, and accident/incident investigation.
- Provides liaison with outside emergency response organizations and assist in such activities as familiarization training and emergency preparedness drills.
- Develops/updates safety rules/ procedures and emergency preparedness plans in cooperation with other departments and outside agencies as appropriate.
- Assures awareness of and compliance with pertinent legislation, regulations, and standards.

- Evaluates new designs and proposed system modifications from a safety perspective.
- Defines system safety requirements.
- Initiates and administers the Safety and Security Certification Plan.
- Monitors the use of personal protective equipment by GCRTA personnel.
- Develops and manages incentive and safety award programs for GCRTA employees.

2.1.2 Safety Related Tasks – General

This section describes the safety-related tasks of GCRTA Departments other than the Safety Department. The listing of safety-related tasks recognizes the fact that the functional responsibilities at the GCRTA are not always vertically assigned, but are distributed across departmental and divisional boundaries. The following are some examples:

Engineering responsibilities among current GCRTA departments are assigned to various organizational elements:

- Rolling stock design, engineering and specifications for all rail cars and other vehicles, including safety characteristics (flammability, smoke emission, braking, crash worthiness, doors) is the responsibility of the Fleet Planning and Engineering Section, Fleet Management Department.
- Facilities design (egress, construction, fire prevention and protection) is the responsibility of the Engineering and Project Management Division, which reports directly to the Deputy General Manager – Engineering and Project Management.
- Communication systems (radio) design and administration is the responsibility of the Director of Information Technology. Maintenance of the radio system is the responsibility of the Manager of Electronic Repair. This function is provided on a GCRTA-wide basis for all modes of transportation including Rail, Bus, Paratransit, and Non-Revenue Operation.
- Other system element design and engineering responsibilities, such as for power, signal, and other wayside systems for Rail, are the responsibility of the Engineering and Project Management Division. Each of the engineering functions is required to evaluate proposed engineering changes for safety impact and coordinate with the Safety Department.
- Specifications for the procurement of materials, including safety characteristics, are the responsibility of the department user, in coordination with the Procurement Department. The Safety Department is consulted on the procurement of all hazardous substances. The Procurement Department is part of the Finance and Administration Division.

The following are functions of the Integrated Communication Center at GCRTA:

- The Service Quality Department is responsible for the control of all bus and rail movements. The Service Quality Supervisors are responsible for proficiency checks, field supervision, and assistance in bus and rail collision investigations and schedule adherence. Service Alerts, reroute instructions, weather updates, and safety information is communicated between Service Quality Coordinators and Bus Operators via district dispatch offices, TransitMaster text messaging system, and radio-telephone interface.

- Zone Supervisors are available to audit daily bus system safety and service performance during their facilitation of service operations. When needed, Zone Supervisors can be sent to specific locations by Service Quality Coordinators to assist operators under various circumstances, including but not limited to, equipment breakdown, collision accident/incident, or passenger issues.

- Rail Control Center Supervisors are responsible for all mainline and yard train movements, both in and out of service. Using available radio technology, and a signalized track system, the supervisors coordinate and monitor the movement of trains and buses, and verify schedule adherence. During scheduled track and power outages, the Control Center Supervisors employ single-track operations to coordinate the movement of trains. In an emergency or otherwise unplanned interruption of service, the Control Center Supervisors maintain scheduled service either directly through the signal system, which may include emergency single-track operations, or indirectly by coordinating the efforts of the train operator, field supervision and or other available personnel.

- The radio control of non-revenue support vehicles operated by personnel from all modes of transportation throughout the GCRTA (for non-administrative vehicles, such as work equipment, signal trucks, etc.) is performed by the Central Communications Specialist who is part of Service Quality. This central control function is provided to bus, paratransit, janitorial and facilities personnel. However, the control of non-revenue vehicles within the rail right of way is the responsibility of the Control Center Supervisor.

- The Central Communications Specialist is primarily responsible for management of the Dynac System. The Central Communications Specialist also handles trouble calls for overhead power, signals, substations, track and facilities and records train defect information received from the Rail Control Center Supervisor. This position also has the capability of receiving trouble calls and notifications, and communicates with Service Quality Coordinators when bus and passenger facility calls come through, or any other calls that could impact bus operations.

- The Central Communications Specialist processes and logs information into CITME Ultramain regarding the above-listed unusual occurrences and trouble reports, and relays the information to the appropriate department for follow-up. The Rail Dispatcher serves as an emergency dispatcher, making emergency call outs of staff while the Central Communications Specialist maintains the capacity to switch the power for the rail system “on” or “off” in emergency situations. Both functions are staffed 24 hours a day, seven days a week.

- Paratransit services are monitored by a separate dispatch office located at the Paratransit District Facility.

- Integrated Communications Center operations include a system of redundant locations for which to safely maintain and continue control of rail operations. A backup ICC is located at the Woodhill Garage property. Additional redundancy to control rail operations exists for Control Center Supervisors to utilize a network of Local Control Panels (LCP) located in the Central Instrument Houses (CIH). The six Local Control Panels are located at Windermere RTS, E. 55th Rail Operations Building, Tower City RTS, W. 117th – Madison RTS, and Brookpark RTS.

Certain maintenance functions and tasks are performed by individual departments on a GCRTA-wide basis, which cross boundaries among the modes of transportation:

- The Rail Facility Maintenance Department performs the rail facility maintenance and janitorial functions for stations, buildings, and building systems.
- The Paratransit Equipment staff performs maintenance of all rubber-tired non-revenue vehicles, including both administrative and non-administrative. The Track Department and Rail Equipment Department performs maintenance of steel-wheeled non-revenue rail equipment. Hi-rail vehicles, for example, are serviced by both the Power and Way Department and by Paratransit since they are rubber-tired.
- Maintenance of radio equipment for all modes of transportation, including revenue and non-revenue vehicles, rail cars, buses, vans, etc., is overseen by the Manager of Electronic Repair, Fleet Management Department.

2.1.3 Service Management Department Tasks

The Service Management Department is responsible for service scheduling (Scheduling Section), route planning (Service Planning Section), maintenance of selected facilities (Central Facilities Section), and data analysis (Business Intelligence Section).

Bus route alignments, time points, and bus stops are chosen with attention to improving safety. In addition, all employees in the Service Management Department are expected to identify, report, and mitigate safety hazards.

2.1.4 Information Technology Tasks

The Department goal is to standardize software management, enhance training, create uniform job descriptions and establish a department that would acquire future/non-managed systems. Additional tasks include:

- Maintaining the radio system (towers, portables, base stations, consoles used in the ICC).
- Maintaining the Hastus software responsible for tracking Operator attendance and performance.
- Maintaining the TransitMaster System used to interface text messaging with Operators as well as the Incident Reporter platform used to log all incidents.
- Maintaining the CITME Ultramain System.
- Maintaining the NICE recording system.
- Serving as Project Manager for the Veeder Root contract. Veeder Root is a monitoring system utilizing various probes and devices to measure and detect leaks in underground and above ground storage tanks on GCRTA property. Mandated compliance reports are generated monthly.
- Setting up new technology platforms, upgrading and updating software and license agreements with external providers, and providing training to users of the aforementioned systems.

2.1.5 Paratransit District Facility/Equipment Tasks

The Paratransit District Facility/Equipment Office provides maintenance services for the non-revenue vehicles. The tasks include:

- Ensuring required equipment is available on non-revenue vehicles and establishes a checklist procedure to assure compliance.
- Follows and maintains the regular system of preventive maintenance inspections that is specific for each vehicle type, as identified by the Asset and Configuration Management Department, monitors and controls compliance to assure timely completion.
- Maintains a central record of non-revenue vehicles. Indicates vehicle location, and where responsibility is assigned for monitoring vehicle condition and maintaining preventive maintenance program.
- Performs monthly inspections of all Underground Storage Tanks (USTs) and maintains a current environmental compliance evidence binder containing CITME records of monthly UST inspections, monthly Veeder Root compliance reports, annual UST inspection reports, UST permits & insurance certificates, and EPA required training documentation to operate and maintain the USTs.
- Acquires and maintains current hazardous substances permits from the City of Cleveland for such items as propane, acetylene, used oil and the underground storage of fuels. Permits are currently issued for a 3-year time period.

2.1.6 Human Resources Tasks

The Human Resources Division is responsible for reviewing and updating hiring standards so as to assure that safety critical skills and qualifications are included in the selection process. Additionally, the Human Resources Division:

- Coordinates with GCRTA staff to develop formal standards and procedures for the evaluation and certification of probationary employees.
- Verifies previous employment record.
- Verifies required licenses and certifications prior to hiring.
- Ensures new hires receive safety training during orientation.
- Maintains training records and ensures on-going and refresher training is conducted based on job descriptions, the outcome of gap analyses, and recommendations from audits and investigations.
- Performs training for 3rd Party Contractors.
- Establishes a regular system of employee performance evaluation that includes evaluation of compliance with safety rules and procedures.
- Monitors the evaluation process to assure timeliness and inclusion of safety items.
- Reviews and modifies position descriptions to reflect safety responsibilities and new functions as they occur.

- Establishes a system for prioritizing the filling of vacant positions that, if not timely, may impact the safety of the GCRTA system.
- Establishes formal pass/fail standards for each employee classification.

2.1.7 Risk Management Tasks

The Legal Division Risk Management Department compiles and maintains records of claims and related costs, and prepares and distributes regular management reports. It coordinates the accident data compilation process providing authority-wide statistics and data used by district management and district safety committees to develop plans of action for continual improvement in the experience of preventable collisions, employee injuries, passenger accidents and asset protection.

2.1.8 Additional Legal Division Tasks

The Legal Division Legal Department monitors legislation, regulatory information and case law in order to assure that GCRTA procedures are in compliance. It provides assistance in establishing guidelines and responses to events in which employee conduct poses a risk to system safety. The Legal Division Safety Department informs affected departments of safety issues that are identified in the course of case investigation. It informs staff of procedures required to document safety violations and uphold safety-related disciplinary actions.

2.1.9 Transit Police Tasks

Transit police tasks include:

- Responsibility for access control and security through crime prevention strategies.
- Policing the system by maintaining order, arresting offenders, and conducting criminal investigations.
- Establishing reporting systems for security issues.
- Establishing, maintaining, and implementing the System Security Plan. Establishing, maintaining, and implementing the Emergency Operations Plan in partnership with the Safety Department.
- In concert with affected departments establishes, maintains and practices emergency procedures for accidents, intentional incidents and acts of nature that impact the safety and security of the GCRTA.
- Testing of all fire detection and protection systems and confirmation all respective alarms transmit to Transit Police Dispatch.

2.1.10 Procurement Tasks

The Procurement Department ensures that materials, equipment, construction and services are obtained in a timely, efficient and economical fashion, adhering to principles of good administrative practices, sound business judgment within the parameters of federal, state, and GCRTA statutory or regulatory requirements. All purchases shall be conducted in a manner that provides maximum open and free competition and not unduly restrict or eliminate competition.

The Procurement Department shall include the Safety Department for all RFP panels that include the purchases of chemicals and shall forward Safety Data Sheets (SDS), for chemicals not previously approved, to the Safety Department for review and approval prior to award.

Purchasing goods and services for the GCRTA must be a cooperative effort, and it shall be the responsibility of all GCRTA staff involved in the purchasing process to employ sound judgment and appropriate standards of ethics and fairness in carrying out their individual responsibilities and tasks.

Procurement prepares each contract ensuring all applicable safety documentation is included, as provided by the Safety Department and Project Managers. Further, Procurement ensures all contracts include provisions for federal and state regulatory compliance.

2.1.11 Engineering and Project Management Tasks

Engineering and Project Management establishes design criteria delineated in the GCRTA Station Safety and Security Design Criteria that provides guidelines and standards for the design of key safety and security related requirements and/or systems for the GCRTA Rail Transit Station Reconstruction Projects and any other future bus and/or station upgrades and/or new construction.

These design criteria include basic planning considerations specific to the project based on industry standards, codes, guidelines, Crime Prevention Through Environmental Design (CPTED) concepts, American with Disabilities Act (ADA) requirements, and safety and security best practices that are commonly utilized at other like transit agencies. In addition, some design criteria are derived from other station reconstruction projects lessons learned and safety/security recommendations derived from the Preliminary Hazard Analysis (PHAs) results and recorded security related issues with the GCRTA system that affect design. The Engineering and Project Management department also:

- Maintains as-built drawings and configuration management for systems, equipment, and facilities.
- Maintains track standard drawings.
- Reviews contracts to assure inclusion of safety design criteria.
- Establishes procedures for verification of system safety and construction safety requirements in contracts.
- Establishes procedures for construction/contract monitoring to assure compliance with safety requirements.
- Conducts construction inspections.
- Implementation, updating, enforcement and document control for the Rail Inspection and Maintenance Manual.

2.1.12 Labor & Employee Relations Tasks

Labor and Employee Relations negotiates labor contracts that identify management rights for assigning work, establishes work rules of acceptable performance standards, and provides a

performance management system for recognizing, coaching, and formally disciplining employees. It establishes a process for developing management strategies for labor contract changes that address bus and rail operating and employee safety issues and provides support for line staff in effectively enforcing safety rules and procedures. It provides assistance with conflict resolution techniques to resolve labor/management conflicts in a way that does not disrupt safe operating procedures.

2.1.13 Occupational Health Tasks

The Occupational Health Section, a section of Labor and Employee Relations, administers the GCRTA Drug and Alcohol Programs and other health/medical related policies (i.e. FMLA, Employee Immunizations, Independent Medical Exams, Medical Questionnaires, EAP and Hearing Exams) and surveillance of employees.

2.1.14 Executive Staff Tasks

The Executive Staff is responsible for establishing policies and procedures for conducting accident investigations and documenting findings and results. It establishes formal policies for the usage of vehicles, accident reporting, responsibility for safe operation and compliance with operating procedures and preventive maintenance program. Furthermore, it establishes policy for an employee safety program, and assigns responsibility for program management to include:

- Safety awareness information.
- Safety incentives with joint labor management design (Awards & Recognition Committee).
- Periodic evaluation.

It establishes and assigns responsibility for managing a loss prevention program for the GCRTA by:

- Establishing policy for hazard identification, assigning responsibility and establishing procedures for program implementation.
- Assigning responsibilities to conduct safety analyses on new construction, engineering change proposals, and hazard analyses.
- Establishing safety goals and objectives for each department.

2.1.15 District Operations Tasks

District Operations tasks include but are not limited to the following:

- Develop and update emergency operating procedures under guidance of the Safety Dept.
- Develop procedures for abnormal and failure recovery conditions, including Continuity of Operations Plans.

- Define facilities, equipment and personnel required to support/enhance transit safety, such as the following:
    - Public Address.
    - Emergency telephone system.
    - Fire detection, alarm and suppression system.
    - Special fire suppression equipment (fire extinguisher, manual release of Sapphire) located where required throughout the transit system.
- Take steps to familiarize personnel with safety equipment, use and location.
- Take steps to identify unsafe practices and procedures throughout the transit system.
- Help investigate unsafe practices and procedures.
- Help investigate accidents and injuries.
- Help establish disciplinary actions for unsafe acts, practices and rule violations (incorporated as part of the union contract).
- Help establish safety-training requirements for various positions.
- Participate in drills and simulations to validate procedures and training.
- Establish requisite tests and inspections.
- Ensure that safety performance is a part of employee evaluation and promote a positive safety culture.
- Ensure adherence to all Standard Operating Procedures such as Electrical Safety, Lockout-Tagout, Water Systems Management, and Work Assignment Job Safety briefings, as well as to programs and plans including the Right-Of-Way Worker Protection Plan.
- Ensuring all Bus and Rail Operators are given 8 hours of consecutive and uninterrupted time off each day as well as to create quiet rooms for Bus and Rail Operators where feasible.

2.1.16 District Facility Maintenance Tasks

District Facility Maintenance tasks include but are not limited to the following:

- Establish policies and procedures for daily/shift inspection of safety critical items.
- Establish preventive maintenance program for key equipment and facility components to assure employee safety and loss prevention.
- Establish policies and procedures for tagging defective equipment, and work-around procedures where appropriate.
- Help define support equipment, personnel and procedures for responding to an emergency and facility alarm situation.

- Help define safety-training requirements related to maintenance of facilities and mechanical equipment (HVAC, emergency ventilation, pumps, fire suppression, etc.).
- Take steps to identify unsafe practices and procedures throughout facilities.
- Help investigate unsafe practices and procedures.
- Establish disciplinary actions for unsafe acts, practices, or rule violations (part of union contract).
- Define safety critical elements and establish maintenance priorities for them.
- Perform monthly inspections of all Underground Storage Tanks (USTs) and maintain a current environmental compliance evidence binder containing CITME records of monthly UST inspections, monthly Veeder Root compliance reports, annual UST inspection reports, UST permits & insurance certificates, and EPA required training documentation to operate and maintain the USTs.
- Acquire and maintain current hazardous substances permits from the City of Cleveland for such items as propane, acetylene, used oil and the underground storage of fuels. Permits are currently issued for a 3-year time period.
- Complete recommendations submitted by the Fire Insurance carrier.
- Perform inspections of hazardous waste storage and corrects any deficiencies. Also ensure proper labeling on hazardous, universal and nonhazardous waste.

2.1.17 Rail Power & Way and Vehicle Equipment Maintenance Tasks

Tasks include but are not limited to the following:

- Define support equipment, personnel and procedures for responding to emergencies.
- Define support equipment, personnel and procedures for responding to abnormal or failure recovery conditions.
- Take steps to identify unsafe practices and procedures throughout the systems.
- Help investigate unsafe practices and procedures.
- Help investigate accidents and incidents.
- Establish disciplinary actions for unsafe acts, practices, or rule violations, as defined by the Union contract.
- Define safety critical elements and establish maintenance priorities for them.
- Help establish safety-training requirements for critical maintenance activities including but not limited to the following:
    - Rail Equipment staff help establish training requirements related to maintenance of rail cars.
    - Track Maintenance staff help establish requirements related to maintenance of track, structures, and non-revenue rail equipment (work trains, locomotives).

    - Signal maintenance staff help establish safety training requirements related to maintenance of signal equipment such as bar lights, track circuits, etc.
    - Line staff and Power staff help establish safety training requirements related to maintenance of traction power distribution systems.
- Participate in drills and simulations to validate procedures and training.
- Develop and verify that maintenance procedures are in place for, including but not limited to, the Power and Way's Track Unit, Signal Unit, Traction Power Unit; Rail Equipment Department, and Bus Equipment Departments.
- Ensure that safety performance is a part of employee evaluation for all District staff.
- CBM and Rail Equipment staff ensure adequate tracking of all chemicals used in respective paint booths to demonstrate de minimus status during potential air quality inspections by the City.

2.2 Safety Hazard Identification, Assessment, and Mitigation

2.2.1 Hazard Identification and Analysis

Safety analyses used for hazard identification encompass all areas within the GCRTA rail and bus operations systems including but not limited to the following:

- All existing elements of the rail and bus operations systems are continually reviewed as part of the GCRTA's on-going risk assessment process.
- Safety analyses are conducted by consultants and contractors on new construction and procurement programs.
- Fixed facilities are inspected and analyzed for potential safety hazards.
- Rail vehicles, revenue vehicles, and non-revenue vehicles are inspected and analyzed for potential safety hazards.
- Equipment and subsystems are inspected and analyzed for potential safety hazards.
- Operating and maintenance procedures, including normal, abnormal and emergency procedures are reviewed and analyzed for potential safety hazards. The safety hazards include occupational and employee safety as well as system and passenger safety hazards that can be induced by GCRTA personnel through human error, acts of commission or omission of personnel proficiency is also evaluated against the procedures for possible human-induced safety hazards.
- In evaluating potential safety hazards to passengers and employees as a result of various energy sources, the following energy sources are considered:
    - Kinetic energy
    - Potential energy
    - Mechanical

- Electrical
- Chemical
- Thermal
- Physical

Most defects found upon preventative maintenance inspection could be considered hazards and the repairs are documented in CITME while notification occurs within work orders reviewed and closed by supervision. Safety Department personnel, as well as the District safety committees, use internal and external safety data sources and the experiences of similar systems as appropriate inputs to aid in the total hazard identification process.

2.2.2 SRM Tools

Safety Department support can be requested through any member of the Safety Department. The following programs or procedures are utilized to formalize some of the identification, reporting and resolution of hazards:

- SOP 8.1: Hazard Reporting and Management Procedure: A standardized method for categorizing, tracking, and resolving hazards. The long-term objective of this procedure is to reduce incidents and injuries by identifying hazards and resolving them, and to provide a system by which employees and management have a reporting process until the listed hazard has been abated or mitigated.
- Availability of a dedicated Safety Hazard Hot Line phone number (216-566-5111) with a voice mail system for off hours, used to take employee hazard reports anonymously, or by name and Department, which is an adjunct to the Hazard Reporting and Management Procedure whereby the same corrective action tracking system would be used until the hazard is mitigated to the lowest practical level or eliminated.
- Observations of conditions and work practices – STOP® (Safety Training Observation Program) audits are performed by supervision using a reminder checklist of potential substandard conditions or practices that can exist. The audit provides an informal opportunity to discuss and correct observations of concern and provide positive feedback to employees who are working safely and following procedure.
- Formal and informal inspection walk-throughs of facility grounds, review of documents, review of video, or observation of work practices. Examples include Bus and Rail Operator Ride Checks, Speed Observations, Work Zone Inspections, Station Inspections, Grade Crossing Audits, and Rolling Stop/Stop Sign Inspections.
- Performance of formalized audits meant to determine the effectiveness and efficiency of a given process which includes a review of documentation and records.
- Investigations performed by the Safety Department, Service Quality, or others resulting in corrective actions from incidents responded to according to AP 002 and the State Safety Oversight Program.
- Audits performed by others such as APTA, State Safety Oversight, FTA, and GCRTA insurance carriers. Note that FTA and ODOT SSO, as well as other oversight authorities,

are sources for hazard identification, and those hazards will be tracked using the same process as internally identified hazards (SMART Log).

- Committee Review – Executive Safety Committee and the District Safety Committees.
- Research of Industry Data and Government Publications such as FTA Safety Advisories, APTA Standards, Product Safety Recalls, NFPA Standards, the Greater Cleveland Safety Council, and OSHA Standards.
- Customer and public feedback from such groups as the GCRTA Community Advisory Committee, the ADA Committee, surveys, public outreach events, and public hearings.

2.2.3 Non-Punitive Hazard Reporting Policy

The Greater Cleveland Regional Transit Authority (GCRTA) is committed to the safest transit operation standards possible; as a result, GCRTA is committed to having uninhibited reporting of all incident and occurrences which may compromise the safe conduct of our operations. To this end, every employee is responsible for communicating any information that may affect the integrity of transit safety. Such communication must be completely free of any form of reprisal.

The Greater Cleveland Regional Transit Authority will not take disciplinary action against any employee who discloses an incident or occurrence involving safety. This policy shall not apply to information received by the Authority from a source other than the employee, or which involves an illegal act, or a deliberate or willful disregard of promulgated regulations or procedures.

A link to the full Non-Punitive Hazard Reporting Policy can be found here.

2.2.4 Hazard Hotline

All reported hazards received by the Safety Department will be evaluated and recorded in a dedicated tracking log (SMART Log) with a reporting date, description of the hazard, and a responsible department or person. Open hazards are regularly reviewed at Executive Safety Meetings and the SMART Log is shared with State Safety Oversight to communicate the status of opened and closed hazards.

2.2.5 Hazard Tracking System

All items received by the Safety Department will be reviewed to determine if the item qualifies as a safety hazard in need of mitigation. A safety hazard is defined as a source of danger to our passengers or our employees. Those items that fall into this category will be listed within the Hazard Tracking System known as the SMART Log. The Safety Department has adopted the SMART acronym from a human resources principle that corrective action plans must be Specific, Measurable, Achievable, Realistic, and Time-Bound.

2.2.6 Coordination with ODOT

ODOT is kept informed of unacceptable hazardous conditions through the submission of Incident Reports, and a monthly report of open corrective actions. Incident Fact Sheets for unacceptable hazardous conditions and incidents or near misses contain the following details:

- How the hazard was recognized and reported.
- A description of the hazard.
- The methodology used in determining the unacceptable hazardous condition.
- The initial risk assessment category.
- Those actions immediately taken to temporarily control the unacceptable hazardous condition to an acceptable level.

A Draft Final Incident Report contains results of the investigation and the events that may affect the safety of customers, employees, and property and equipment within the GCRTA. Along with the Draft Final Incident Report, a Corrective Action Plan (CAP) is submitted to ODOT within 30 days (or longer if a 30-day Status Report is filed for more time consuming and complex investigations), for adoption and approval. The CAP details the actions needed to control the hazard or address the causal factor and prevent recurrence. A completed CAP should also impact the final risk assessment category by reducing the probability of recurrence and/or reduce the severity should the event recur. A recognized best practice is the Quarterly Meeting held between GCRTA and State Safety Oversight to review the status of all CAPs, and discuss those that have been open over one year or have had target dates extended for reasons such as funding.

GCRTA Corrective Action Plans include:

- Identification of the hazard, deficiency, or root cause.
- The action(s) being taken by GCRTA to resolve or mitigate the hazard or deficiency.
- An implementation schedule for the CAP.
- The individual or department responsible for implementing the corrective action(s).
- Any other critical information deemed necessary by GCRTA or ODOT.

ODOT and/or the FTA may conduct separate, independent investigations at their own discretion. GCRTA would cooperate and participate in any such investigations, and would provide review and comment on any draft report in order to formulate a final report that would include mitigations and corrective actions that would be tracked to implementation. Evidence of corrective action completion would be submitted to ODOT/FTA as the current process dictates.

An annual report is transmitted to ODOT under the signature of the Accountable Executive, affirming that the GCRTA is in compliance with its PTASP. If the internal audits should find areas of non-compliance with the PTASP, the transmittal letter will indicate those corrective actions taken to reach compliance.

The report documents the internal safety assurance auditing activities; the status of compliance with the internal review schedule; and subsequent findings, recommendations and corrective actions to address the findings.

2.2.7 Safety Risk Management through SMS

Safety Risk Management will take the following steps through SMS:

Personnel are required to define a system, identify hazards and undesired events, assess the hazard through probability and severity, resolve the hazard(s) through the use of the Hierarchy of Controls and provide follow-up to measure effectiveness of controls. It is important that any risk mitigation does not create an additional hazard. The goal is eliminate a safety risk wherever possible. If this cannot be accomplished, safety devices, administrative controls, and/or PPE requirements will be instituted to lower safety risk.

GCRTA SRM process does allow for reevaluation of hazard(s) if there is new technology and/or process introduced to a system that affects operational or safety standards.

- Hazard Identification: collect data/information.
- Hazard Analysis: state the hazard, identify hazard components, and identify potential consequences.
- Evaluate the Safety Risk: express severity and probability of consequence, utilize the Hazard Resolution Matrix, and evaluate current mitigations.
    - Safety Risk Severity: A qualitative measure of the worst credible mishap resulting from personnel error, environmental conditions, design inadequacies, procedural deficiencies, system, subsystem, or component failure, or malfunction.
    - Safety Risk Probability: The probability that a hazard will occur during the planned life expectancy of the system can be described in potential occurrences per unit of time, events, population, items, or activity.
- Mitigate Safety Risk: use Hierarchy of Controls – elimination, substitution, engineering controls, administrative controls, and PPE.
- Monitor: assurance audits and inspections determine effectiveness of compliance.

2.2.8 Hazard Resolution Matrix

RISK ASSESSMENT MATRIX				
SEVERITY / PROBABILITY	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)
Frequent (A)	High	High	Serious	Medium
Probable (B)	High	High	Serious	Medium
Occasional (C)	High	Serious	Medium	Low
Remote (D)	Serious	Medium	Medium	Low
Improbable (E)	Medium	Medium	Medium	Low
Eliminated (F)	Eliminated			

Hazard Risk Index	Hazard Category	Risk Decision Criteria
1A, 1B, 1C, 2A, 2B	I	High – Unacceptable (UN)
1D, 2C, 3A, 3B	II	Serious – Undesirable Management Decision Required (UD)
1E, 2D, 2E, 3C, 3D, 3E, 4A, 4B	III	Medium – Acceptable with Review by Management (AC/WR)
4C, 4D, 4E	IV	Low – Acceptable Without Review (AC)
F	V	Eliminated (EL)

The best method of resolving potential system hazards is through elimination. However, this may be impossible or impractical at times.

SEVERITY CATEGORIES		
Description	**Severity Category**	**Mishap Result Criteria**
Catastrophic	**1**	Could result in one or more of the following: death, permanent total disability, irreversible significant environmental impact, or monetary loss equal to or exceeding $10M.
Critical	**2**	Could result in one or more of the following: permanent partial disability,injuries or occupational illness that may result in hospitalization of at least three personnel, reversible significant environmental impact, or monetary loss equal to or exceeding $1M but less than $10M.
Marginal	**3**	Could result in one or more of the following: injury or occupational illness resulting in one or more lost work day(s), reversible moderate environmental impact, or monetary loss equal to or exceeding $100K but less than $1M.
Negligible	**4**	Could result in one or more of the following: injury or occupational illness not resulting in a lost work day, minimal environmental impact, or monetary loss less than $100K.

PROBABILITY LEVELS			
Description	**Level**	**Specific Individual Item**	**Fleet or Inventory**
Frequent	**A**	Likely to occur often in the life of an item.	Continuously experienced.
Probable	**B**	Will occur several times in the life of an item.	Will occur frequently.
Occasional	**C**	Likely to occur sometime in the life of an item.	Will occur several times.
Remote	**D**	Unlikely, but possible to occur in the life of an item.	Unlikely, but can reasonably be expected to occur.
Improbable	**E**	So unlikely, it can be assumed occurrence may not be experienced in the life of an item.	Unlikely to occur, but possible.
Eliminated	**F**	Incapable of occurence. This level is used when potential hazards are identified and later eliminated.	Incapable of occurence. This level is used when potential hazards are identified and later eliminated.

Source: MIL-STD-882E

Determination of the method to be employed can be made by conducting a thorough analysis of the system, considering the possible tradeoffs between various alternatives and the system safety requirements. The philosophy dictating these analyses should result in the resolution of alternatives. In general accordance with MIL-STD-882E practices, a number of different means can be employed to resolve identified risk/hazards. These include design changes, the installation of controls and warning devices, and the implementation of special procedures. The order of preference for the means to be used in resolving hazards at the GCRTA shall be as follows:

- Design for Minimum Hazard: Design, or redesign, refurbish and retrofit to eliminate (i.e., “design out”) the hazards through design selection. This may be accomplished through the use of fail-safe devices and principles in design, the incorporation of high-reliability systems and components, and the use of redundancy in hardware and software design.
- Safety Devices: Hazards that cannot be eliminated or controlled through design selection shall be controlled to an acceptable level through the use of fixed, automatic, or other protective safety design features or devices. Examples of safety devices include interlock switches, protective enclosures, or fixed machine guarding. Care must be taken to ascertain that the operation of the safety device reduces the loss or risk and does not introduce an additional hazard. Provisions shall be made for periodic functional checks of safety devices.
- Warning Devices: When design or safety devices cannot effectively eliminate or control an identified hazard, devices shall be used to detect the condition and generate an adequate warning signal to correct the hazard or provide for remedial action such as evacuation. Warning signals and their application shall be designed to minimize the probability of incorrect personnel reaction to the signals and shall be standardized within similar systems.
- Procedures and Training: Where it is impossible to eliminate or adequately control a hazard through design selection or use of safety and warning devices, procedures and administrative controls shall be used to address the hazard. Procedures may include the use of personal protective equipment. Precautionary notations shall be standardized as specified by the Safety Department. Safety critical tasks and duties and activities throughout the GCRTA, shall require organizational certification of personnel proficiency.

2.2.9 Accident Reporting

Administrative Procedure 002 Revenue Vehicle Accident Investigation controls the activities of safety and other departments for accident reporting, response, and investigation. Accident notification is initiated by the Operator of the revenue vehicle involved in the accident. Protocol requires the Operator stop immediately to preserve the accident scene and report the accident immediately to the Integrated Communications Center over the radio if possible. Four accident levels are established that direct which RTA personnel positions/departments will be notified by control center personnel to respond. Each level identifies the “Accident Status”. In the event an accident status level is borderline, the accident status shall be upgraded to the next level of seriousness.

LEVEL	DESCRIPTION
4	Up to 3 claimed injuries and/or minor damage
3	4-9 claimed injuries and/or 1-3 apparent injuries and/or minor damage
2	10 or more claimed injuries and/or 4-6 apparent injuries and/or pedestrian accident and/or major damage and/or fire
1	7 or more apparent injuries and/or any fatality and/or major damage and/or fire

Transit Police in all cases will be notified, handle dispatch communication with 911 emergency services if required, and respond. Service Quality will be notified and respond. The Safety Department shall be notified of accidents for all accident levels. Safety will determine when contact of a governmental agency (e.g. FTA, ODOT, NTSB), is required. Claims, District Management, and Media Relations will also be notified.

2.2.10 Accident Response

Responsibility for and command of the accident scene depends on the Accident Status Level. This order shall be as follows:

- The Fire Department Commanding Officer on scene during rescue, firefighting or hazardous materials incidents.
- Local Police Jurisdiction when investigating or clearing scene upon non-GCRTA controlled property.
- Level 4 – Service Quality Supervisor.
- Level 3 and 2 - Ranking Operations person, unless the Safety Department responds.
- Level 1 - Safety Department.

Upon responding to the accident, immediate or emergency corrective actions will be taken to assist and protect the injured and to ensure that sufficient resources such as police, EMS, towing, etc, are en route. Next, steps will be taken to protect the accident scene to prevent further injury, ensure the integrity of evidence, and control access. Service Quality will determine if any GCRTA employees are transported for drug and alcohol testing per the Substance Abuse Policy.

Information to be collected at the scene includes photographs, relevant names and call signs of those at the scene, measurements, an initial damage assessment, and interviews with relevant parties. Video from security cameras can be reviewed, and DriveCam events can be observed, post-accident through the DriveCam web interface.

2.2.11 Accident Investigation

After responding to the accident and collecting the necessary information at the scene, post-accident investigation can take place. The vehicle may be isolated for a post incident safety inspection depending on the accident level or departmental discretion.

Investigating Safety Department personnel will conduct a post-accident review with involved departments to discuss details and ascertain possible cause. Transit Police will forward their copy of the accident report to Safety and Claims. An Equipment Department review will be provided within 48 hours of an accident, unless a vehicle is isolated, in which case, the review will not take place until the vehicle is released or review is authorized by Safety. A Service Quality Supervisor's accident report will be completed by the end of the shift when the accident occurred, as will the Operator's accident report unless the Operator is hospitalized. Operator and witness statements may also be obtained. External reports, if generated, shall be obtained and reviewed as soon as available.

The Safety Department will complete a comprehensive accident investigation report for all bus accidents reported to, or other accidents as directed by the Accountable Executive or Chief Safety Officer. Initial Incident Fact Sheets will be forwarded to the DGM of Legal Affairs by the close of business on the second day of business after the accident, and a Draft Final Incident Report will be completed within thirty days of the accident. The purpose of all investigations is prevention through root cause analysis and the determination of corrective action plans that achieve continuous improvement regarding the performance targets and the protection of the public, employees and assets.

2.2.12 Facility Inspections

Facility inspections are conducted by Facility Maintenance personnel at each district. Maintenance tasks are controlled and tracked in the CITME Ultramain System, which helps schedule preventative maintenance (PM) based on established maintenance requirements, and tracks all corrective maintenance (CM) work orders. Each bus district has a Facility Manager with a staff of maintenance leads, technicians, maintainers, and helpers of various skill levels.

Safety equipment under the purview of Facility Maintenance includes the following:

- Fire Alarms
- Fire Suppression including sprinklers and extinguishers
- Emergency lighting
- Back-up generator systems
- Emergency Ventilation
- AED stations
- Fall Protection
- Alternative Fuel Detection, Alarm, and Ventilation systems
- Bloodborne Pathogen Kits
- Spill Containment and Cleanup Supplies
- Emergency Eyewash and Shower Stations
- Veeder Root UST Leak Detection and Reporting System

Regularly scheduled inspections and maintenance at bus districts include the above safety systems, as well as HVAC systems, lighting systems, roof and general building, restrooms, shop equipment, lifts, and wash racks, as examples. These systems are inspected on either a daily, monthly, quarterly, or annual basis. If a deficiency is identified that cannot be corrected during the PM, a CM work order will be generated.

Safety personnel conduct planned and unplanned walkthrough audits of GCRTA facilities to identify potential hazards or OSHA violations, and tracks compliance over time. These walkthroughs are documented for the appropriate department to correct.

2.2.13 Vehicle Maintenance Inspections

Vehicle maintenance is conducted by the Operating Districts and the Central Bus Maintenance Facility. Maintenance is overseen by the Equipment Manager and their staff of mechanics of varying grades and skill levels. Maintenance tasks are controlled and tracked in the CITME Ultramain System, which helps schedule preventative maintenance (PM) based on established maintenance requirements, and tracks all corrective maintenance (CM) work orders. Preventative maintenance of buses is both mileage-based and time-based, utilizing 3000, 6000, and 10,000 mile intervals, as well as Quarterly, Semi-Annual, and Annual intervals. Specific tasks for each interval period is defined for each bus fleet in the CITME Ultramain System. Predictive maintenance, the process of replacing or refurbishing a component before it is predicted to fail, has been implemented into GCRTA operations to further bolster the reliability of the revenue fleet.

In addition to Preventative Maintenance inspections, a pre-trip inspection is required. Defects identified during either pre-trip inspection or normal operation are recorded on the radio and submitted electronically. Service Quality audits compliance and accuracy of pre-trip inspections during daily ride checks with Operators. Defects identified are entered into the CITME Ultramain Systems as a maintenance request for repair.

2.2.14 Facility and Equipment Inspections – Rail

Major elements in the rail system that directly affect safety are: vehicles, right of way, overhead power distribution, signal system, and rail stations and facilities. Preventive maintenance activities on wayside equipment and other safety critical equipment are performed in accordance with manufacturers' recommended practice and the APTA Manual of Standards and Recommended Practices for Rail Transit Systems and are documented. Checklists are used in conducting inspections of facilities and equipment.

All heavy and light rail cars are inspected once every 30 days (± 3 days) Inspection schedules, findings and corrective actions are logged in CITME Ultramain.

Periodically rail cars are serviced outside of the interval period to most efficiently utilize resources and ensure safety. These inspections includes pantographs, lights, deadman control, console horns, wheels, motors, brake system, shock absorbers, springs, couplers, windows, battery, doors, floors, steps and body. This information is also logged in CITME Ultramain.

GCRTA adopted its own internal standards for maintaining track. GCRTA qualified track inspectors and track maintainers inspect light and heavy rail track for defects. This inspection includes rail, roadbed, spikes and other rail fastening systems, bolts, ties, welded and insulated joints, and switches. Inspections and maintenance are reported through CITME Ultramain. Bridges are inspected and maintained by the Engineering and Project Management Department. The I&M Manual can be found here.

Rail Management has developed comprehensive policies and procedures to address all aspects of track management including preventive and corrective maintenance. Track preventive maintenance inspections are uniform with respect to terminology, locations, and conditions. Corrective maintenance items are tracked to completion and reconciled to a preventive maintenance work order. Minimum and maximum measurement ranges are defined in the CITME Ultramain system. Inspection results are quantified and documented for tracking purposes and follow-up activity. Inspection of the entire system is conducted weekly. To ensure safety a standard operating procedure establishes priorities for track deficiencies and timing of corrective action.

Regular track surfacing and lining is performed using a tamper to assure a safe, smooth roadbed and fixed guideway interaction.

Track Inspection Frequencies

System, Device, or Component	Action	Frequency of Action	Reference
TRACK INSPECTION	INSPECTION - WALKING OR RIDING	WEEKLY	I&M Manual
SWITCHES INCLUDING FROGS AND GUARD RAIL	INSPECTION	WEEKLY/MONTHLY	I&M Manual
TRACK GEOMETRY	INSPECTION	ANNUAL	I&M Manual
CWR	INSPECTION	ANNUAL	I&M Manual
GRADE CROSSING	INSPECTION	WEEKLY	I&M Manual
TIES	INSPECTION	WEEKLY/MONTHLY	I&M Manual
TIE PLATES	INSPECTION	WEEKLY/MONTHLY	I&M Manual
RAIL FASTENERS	INSPECTION	WEEKLY	I&M Manual
TRACK SURFACE	INSPECTION	WEEKLY	I&M Manual
TRACK GAUGE	INSPECTION	WEEKLY	I&M Manual
TRACK ALIGNMENT	INSPECTION	WEEKLY	I&M Manual
BALLAST	INSPECTION	WEEKLY	I&M Manual
RAIL JOINTS	INSPECTION	WEEKLY	I&M Manual
SPECIAL INSPECTION POST-FIRE, FLOOD, SEISMIC ACTIVITY, SEVERE STORMS & DERAILMENTS	INSPECTION	IMMEDIATELY AFTER EVENT	I&M Manual
MAINLINE SWITCHES	INSPECTION	MONTHLY	I&M Manual
YARD SWITCHES-HAND THROW ONLY	INSPECTION	QUARTERLY	I&M Manual
VEGETATION	INSPECTION	WEEKLY	I&M Manual
BASE AND SUB-BASE	INSPECTION	WEEKLY	I&M Manual
SLIP JOINTS	INSPECTION	WEEKLY	I&M Manual
ROAD BED	INSPECTION	WEEKLY	I&M Manual
RAIL WEAR	INSPECTION	WEEKLY	I&M Manual

Signal Maintainers visually check wayside signals daily, and report all defects in CITME Ultramain for immediate repair or other corrective action. In addition to this safety check, all signal defects when reported by rail operators are checked and repaired promptly, with information logged in CITME Ultramain.

Signals Inspection Frequencies

System, Device, or Component	Action	Frequency of Action	Reference
ELECTRIC SWITCH MACHINE	INSPECTION	MONTHLY	APTA
ELECTRIC SWITCH MACHINE	MAINTENANCE	QUARTERLY	APTA
WAYSIDE SIGNAL	INSPECTION & MAINTENANCE	QUARTERLY	APTA
SNOW MELTING EQUIPMENT	INSPECTION & MAINTENANCE	ANNUAL	APTA
AC POWER SYSTEMS	INSPECTION & MAINTENANCE	QUARTERLY - MONTHLY AT GRADE CROSSING	APTA
DC POWER SYSTEMS	INSPECTION & MAINTENANCE	QUARTERLY - MONTHLY AT GRADE CROSSING	APTA
SIGNAL EQUIPMENT ROOM	INSPECTION & MAINTENANCE	QUARTERLY - MONTHLY AT GRADE CROSSING	APTA
AC GROUND DETECTION	INSPECTION & MAINTENANCE	QUARTERLY - MONTHLY AT GRADE CROSSING	APTA
DC GROUND DETECTION	INSPECTION & MAINTENANCE	QUARTERLY - MONTHLY AT GRADE CROSSING	APTA
GRADE CROSSING EQUIPMENT	INSPECTION	MONTHLY	APTA
GRADE CROSSING EQUIPMENT	MAINTENANCE	QUARTERLY	APTA
AC VANE RELAY	INSPECTION	EVERY TWO YEARS	APTA
DC VITAL RELAY	INSPECTION	EVERY FOUR YEARS	APTA
SIGNAL EQUIPMENT ROOM GROUNDS	INSPECTION & MAINTENANCE	QUARTERLY - MONTHLY AT GRADE CROSSING	APTA
SWITCH MACHINE OBSTRUCTION	INSPECTION	MONTHLY	APTA
LOCAL CONTROL PANEL	INSPECTION & MAINTENANCE	QUARTERLY	APTA
ELECTRIC TRAIN STOP	INSPECTION & MAINTENANCE	MONTHLY	APTA
CABLE PLANT TESTING	INSPECTION	EVERY 10 YEARS	APTA
APPROACH LOCKING	INSPECTION	ANNUAL	APTA
TIME LOCKING	INSPECTION	ANNUAL	APTA
ROUTE LOCKING	INSPECTION	ANNUAL	APTA
TRAFFIC LOCKING	INSPECTION	ANNUAL	APTA
HAND OPERATED SWITCH MACHINE	INSPECTION	MONTHLY	APTA
AUDIO FREQUENCY TRACK CIRCUIT	INSPECTION & MAINTENANCE	BI-ANNUAL - MONTHLY AT GRADE CROSSING	APTA
POWER FREQUENCY TRACK CIRCUIT	INSPECTION & MAINTENANCE	BI-ANNUAL - MONTHLY AT GRADE CROSSING	APTA
IMPEDANCE BOND	INSPECTION & MAINTENANCE	BI-ANNUAL - MONTHLY AT GRADE CROSSING	APTA
INDUCTIVE LOOP	INSPECTION & MAINTENANCE	BI-ANNUAL - QUARTERLY FOR CAB TEST LOOPS AND CUT- IN LOOPS	APTA
DERAIL	INSPECTION	MONTHLY	APTA
DERAIL	MAINTENANCE	QUARTERLY	APTA
YARD/BLOCK LIGHTS	INSPECTION	BI-ANNUAL	

An inspection of the overhead catenary is conducted weekly by riding in the front end of a revenue train and by walking the line annually. Traction Power personnel inspect and maintain electrical distribution from the substation to the overhead system. Overhead contact wires, catenary wires, rail support structures, and fasteners on both heavy rail and light rail systems are checked visually once a year by Traction Power personnel both visually and hands-on. They are checked for wire wear, broken or loose hangers, broken insulators, dislodged feeder taps, and obvious misalignment.

Substations are assigned maintenance requirements according to APTA standards. Preventive maintenance inspections are uniform with respect to terminology, locations, and conditions. Within CITME Ultramain, defined maintenance requirements are equipped with automatic triggers which initiate work orders for tasks due. Inspection parameters have been established in order to gauge deviations from allowable readings and measurements according to OEM and APTA requirements. Corrective actions are tracked to ensure completion. Results of all Traction Power inspections and corrective actions are recorded in CITME Ultramain.

Line and Substations Inspection Frequencies

System, Device, or Component	Action	Frequency of Action	Reference
AC52 BREAKER (VACUUM BOTTLE)	MAINTENANCE:	YEARLY	GCRTA-CITME
DISCONNECT SWITCH	MAINTENANCE:	YEARLY	GCRTA-CITME
DC FEEDER BREAKER (Draw Out Truck Mounted)	MAINTENANCE:	YEARLY	GCRTA-CITME
SCADAMASTER-730	INSPECTION	BI-ANNUAL	GCRTA-CITME
FIBER OPTICS	INSPECTION	ANNUAL	GCRTA-CITME
EXHAUST FAN & INTAKE FAN	INSPECTION	ANNUAL	GCRTA-CITME
SUBSTATION HEATERS	INSPECTION	ANNUAL	GCRTA-CITME
SUBSTATION AC UNIT HEATERS	INSPECTION	ANNUAL	GCRTA-CITME
SUBSTATION REMOTE TERMINAL UNIT CABINET	INSPECTION	ANNUAL	GCRTA-CITME
OVERHEAD WAYSIDE DISCONNECT	INSPECTION	ANNUAL	GCRTA-CITME
NOBO SECTION INSULATOR (Fiber Board Style)	INSPECTION	ANNUAL	GCRTA-CITME
NOBO STYLE: _____Visually Inspect Fiberboard Insert for carbon and burning. _____Visually Inspect Brass ends for excessive burning. _____Visually Inspect all associated hardware for defects.	INSPECTION	SEMI-ANNUAL	GCRTA-CITME
MANHOLES	INSPECTION	SEMI-ANNUAL	GCRTA-CITME
TOWER CITY - OVERHEAD AERIAL	INSPECTION	ANNUAL	GCRTA-CITME
YARD AERIAL	INSPECTION	ANNUAL	GCRTA-CITME
WATERFRONT WEIGHTS	INSPECTION	SEMI - ANNUAL	GCRTA-CITME
OVERHEAD VISUAL	INSPECTION	WEEKLY	GCRTA-CITME
CABLES - 600VDC TO 1500VDC	MEGGER	FIVE YEARS	GCRTA-CITME
WAYSIDE DISCONNECTS-VISUAL AND MECHANICAL	INSPECTION	SEMI - ANNUAL	GCRTA-CITME
ELECTRICAL TESTS:	INSPECTION		GCRTA-CITME
A) PERFORM RESISTANCE MEASUREMENTS ON BOLTED CONNECTIONS WITH A LOW-RESISTANCE OHMMETER CAPABLE OF READING 2 MICROHMS OR WITH PARALLEL CABLES USE A CLAMP-ON AMMETER TO VERIFY NEARLY EQUAL CURRENTS ON ALL CABLES.	MEGGER	ANNUAL	GCRTA-CITME
B) PERFORM AN INSULATION RESISTANCE TEST WITH A MEGOHMMETER USING A VOLTAGE NO GREATER THAN THE CABLE INSULATION RATING WHEN THE INTEGRITY OF A CABLE IS SUSPECT. WHERE THERE IS MORE THAN ONE CABLE IN PARALLEL, TEST EACH INDIVIDUAL CABLE.	MEGGER	ANNUAL	GCRTA-CITME

Inspection and maintenance of facilities and related equipment is performed in accordance with manufacturers' manuals, codes, standards and established procedures. Rail stations and facilities are inspected by Transit Police for security and safety hazards, and deficiencies are forwarded to Central Communications.

2.2.15 Water Systems Management

Legionella is a naturally-occurring organism and has been isolated from samples of river and lake water, as well as soil and dirt. There are over 39 known species of the Legionella bacteria, some of which are subdivided into several different serogroups. The species of Legionella most commonly associated with outbreaks of Legionnaires' disease is Legionella pneumophila serogroup 1. Outbreaks have also been associated with 16 other species and several serogroups of Legionella pneumophila.

In general, the source of the organism comes from municipal water supplies which introduce Legionella into facility water distribution systems at concentrations that are not detectable by laboratory analysis. However, non-detectable levels do not necessarily indicate the absence of Legionella bacteria. Certain operating characteristics in the systems can contribute to the potential amplification of Legionella. Factors which affect the ability of Legionella to proliferate in a particular water system include; temperature, pH, nutrient levels, water treatment programs, plumbing design, and plumbing complexity and maintenance procedures. However, proper water quality management programs and system maintenance can reduce the risk of Legionella colonization.

The GCRTA Water Systems Management program document describes operation and maintenance requirements and hygiene standards for water systems and services, which are used by facilities management, maintenance employees, contractors and other affected personnel in our facilities. The document provides criteria to identify operating and maintenance procedures, guidance on water sampling and analytical methods, record keeping requirements and actions to be taken should parameters fall outside acceptable limits. The complete program can be found on the Safety Management System tab of the intranet.

2.3 Safety Data Acquisition, Analysis, and Reporting

2.3.1 Safety Performance

It is the task of the Safety Department, Risk Management, and Executive Safety Committee to monitor the safety performance of GCRTA operations. Safety data is collected and analyzed to determine if safety performance meets the established safety goals and objectives. This data includes injuries to passengers, GCRTA personnel, public; potentially hazardous equipment failures; design inadequacies; rules and procedure violations; safety program audit deficiencies and collisions.

Information regarding accidents, incidents, hazardous conditions, and safety program deficiencies is obtained from several different reporting mechanisms. These include, but are not limited to:

- RiskMaster Collision, Employee Injury, & Passenger Accident Data
- Occupational Injury Reports
- Accident/Incident Reports
- Accident Investigations
- Claims Reports
- Facility and Equipment Maintenance Reports
- Ultramain Reports
- Transit Police Reports
- Control Center Supervisor Logs
- Hazard Report Forms (Non-Punitive Hazard Reporting)
- Hazard Hotline
- Safety Walk/Audits
- Safety Representative on Site Days

Tracking of hazard–related data is used to identify trends. These trends are further analyzed and/or investigated by the Safety Department and the Districts to determine causal factors. This is accomplished through interviews with personnel in the affected department(s) and analysis of related documentation. Identified hazards are submitted to the affected department(s) for resolution, and may include corrective action recommendations.

GCRTA safety performance trend and analysis reports are presented at the Executive Safety Committee for review and discussion. All other GCRTA safety committees receive safety trend and analysis reports relative to the respective areas. The reports provide a year-to-date measure of performance relative to the targets set by the PTASP and help to determine targets for the coming year with continuous improvement in mind.

2.3.2 Occurrence Log

The Occurrence Log originates as both bus and rail data in the TransitMaster system that is inputted by Control Center Supervisors and Bus Coordinators in the Integrated Communications Center as an "Incident Report." The data is pulled daily from TransitMaster by a Service Quality Manager and is formatted into the "Incident Detail Report." The Incident Detail Report is distributed internally from Service Quality to district stakeholders and others for trending and analysis, along with an Incident Summary Report.

Per ODOT Procedure SSO-007, the GCRTA Service Quality Office Manager emails Incident Detail Reports to ODOT. This data is then reviewed and analyzed by the ODOT SSO program to be used for oversight and risk monitoring purposes.

2.3.3 Configuration Management Committee

Engineering and Project Management, Fleet Management, Bus Paratransit and Rail Operations, Service Management, Procurement, and Safety, are the main divisions/departments that have an interest, control and an expectation of improving the quality, safety and maintenance of Authority assets.

Per the Configuration Management Plan, reviews may be prompted by failure (hazard) analysis, accidents, near misses, hazard reports, proposed design changes, new purchases, or internal safety audits. All corrective action plans that result from reviews will have an assigned responsible party and a target completion date for the plan that will be tracked until completion. At the discretion of the Safety Department, the status of corrective action plans will be reviewed at Executive Safety Committee meetings, District Safety Committee meetings, Opstat meetings or other appropriate forums to keep management abreast of the status of such plans.

The Configuration Management Committee will consist of a Director from each District, Safety, Asset & Configuration Manager, Transit Police, Engineering, Facility Maintenance, and the DGM of Operations. The Configuration Management Committee must ensure that each proposed change to an asset, activity, or operation is considered for processing through the change control process. To ensure that all changes are controlled as appropriate, the Configuration Management Committee must identify all mechanisms that can lead to temporary or permanent changes in:

- Asset design/operational requirements.
- Asset physical configuration.
- Asset documentation.

Changes may be initiated through any of a variety of departments within the authority, such as fleet planning, operations, maintenance, inventory, procurement, procedures, training, and security. Changes can include physical, document, procedural, operations, software, or design changes.

A Configuration Control Board (CCB) composed of the DGM of Operations, Asset Manager, Engineering Manager, Manager of Safety and/or Director of Safety, District Director where asset/system is being replaced, and any support personnel who have knowledge of the asset/system being replaced, should assess each type of change to determine the mechanisms for initiating changes and link them to the change control process. The identification of change mechanisms is often the most critical step to achieving effective change control. Change mechanisms that are not identified cannot be controlled. Once change mechanisms are defined, the (CCB) should ensure that the change control process is properly integrated.

The (CCB) will be responsible for reviewing any changes new and existing that do not meet the original design or intent of an asset or system. The Asset Change Form will be filled out and reviewed by the Asset Manager. If the asset or system in question is not a like for like replacement it will go to the (CCB) for further review to ensure the integrity of the asset or system is not compromised.

2.3.4 PTASP Labor/Management Safety Committee

Effective July 7, 2022 the Greater Cleveland Regional Transit Authority (GCRTA) and the Amalgamated Transit Union, Local 268 (ATU) established a joint labor-management safety committee pursuant to the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (49 U.S.C. § 5329) in order to perform the tasks, set forth in that statute. The Committee is known as the PTASP Labor/Management Safety Committee. The Committee's purpose is to facilitate cooperation between management and ATU in safety matters including but not limited to reviewing, approving, and implementing changes to the Public Transportation Agency Safety Plan (PTASP) that applies to the System; identifying and resolving hazards within the System; ensuring the effectiveness of safety policies and procedures that apply to the System; and fostering effective communication between management, the ATU, and System employees regarding safety matters.

- The Committee will consist of eight (8) members and two (2) alternates, with equal representation from management and the ATU, each of which will select their own representatives. Both management and the ATU will decide unilaterally how each will select its representatives and how long those representatives will serve. The alternate may vote if filling in for a voting member. If a Committee member is unable to attend a regularly scheduled Committee meeting, management or the ATU - depending on which party the member represents - will choose an alternate to attend in the member's place. If a vacancy occurs on the Committee, management or the ATU - depending on which party the departed member represented - will choose a replacement member by the date of the next regularly scheduled committee meeting or within thirty (30) calendar days, whichever occurs later.

- The Committee will be led by two co-chairs: one chosen by management from among its Committee representatives and one chosen by the ATU from among its Committee representatives. The co-chairs or their designees will:

    1. Set the agenda of each Committee meeting and distribute it to all Committee members in advance

2. Send reminder communications to all Committee members regarding the date, time, and location of each Committee meeting
3. Facilitate each Committee meeting
4. Coordinate the participation in a Committee meeting of any outside safety experts or other guests whose presence the Committee requests
5. For each Committee meeting, select a GCRTA staff member who will take minutes
6. Maintain copies of all Committee meeting minutes and of all other records created by the Committee
7. Prepare any correspondence that will be sent or distributed on the Committee's behalf
8. Perform any other tasks that the Committee might decide

- The Committee will perform tasks including but not limited to:

1. Reviewing and approving GCRTA's PTASP in accordance with the deadlines imposed by 49 U.S.C. § 5329.
2. The Committee in conjunction with the other GCRTA safety committees will work on:
    - Identifying hazards within the System and recommending ways to fix them
    - Identifying steps that management has taken to fix hazards in the past that have not succeeded in diminishing the targeted hazard(s)
    - Identifying ways to improve safety within the System
    - Analyzing transit workers' risks of suffering assaults within the System
    - Determining whether the implementation of physical barriers that separate operators and passengers on transit vehicles, and/or implementing other anti-assault infrastructure, would reduce assaults on and injuries to operators within the System
    - The Committee may recommend the other safety committees to further review and consider other items that may address concerns identified above
3. Establishing benchmarks for reducing safety risks within the System

- The Committee will have access to all documents, electronically stored information, and other records that are held or maintained either by management or by the ATU and that are reasonably relevant to the Committee's work. This provision will not require management or the ATU to disclose any information that is to remain confidential by law or under the collective bargaining agreement between GCRTA and the ATU.

- The approval of the PTASP will require the affirmative vote of the majority or five (5) voting committee members. A meeting quorum will require at least two (2) members of the ATU and two (2) members of the GCRTA.

- The Committee will meet at least once a quarter for one hour. If the Committee finds it necessary to reschedule a meeting, the meeting will occur at a time decided upon by the Committee. Likewise, if the Committee finds that additional meetings are necessary, they will occur at times decided upon by the Committee. All Committee meetings will take place at 1240 West 6th Street, Cleveland, Ohio (Main Office Building).

- Management will not schedule any ATU Committee member (or alternate, if applicable) to work during any Committee meeting or other pre-scheduled Committee activity. Management will pay each ATU Committee member (or alternate) their regular wage rate during:

  1. Time required to attend Committee meetings
  2. Members of the Committee may be paid to attend one other smaller safety committee once a month.

  This does not include any ATU Officer that is on a paid leave of absence from the GCRTA to perform their elected ATU duties.

- Management and the ATU will resolve any disputes regarding the meaning and interpretation of this Memorandum and any disputes regarding the structure or functions of the Committee using the grievance and arbitration procedure contained in the collective bargaining agreement between GCRTA and the ATU.

- Neither management nor the ATU will retaliate in any way against any Committee member on account of their committee work. Likewise, neither management nor the ATU will retaliate in any way against any other person employed within the System on account of any assistance given by that person to the Committee. Any management employee and any member of the ATU who believes that management or the ATU has violated this provision may seek a remedy via the contractual grievance and arbitration procedure as described in the Memorandum.

2.3.5 Assault Mitigation

As an element of Customer Service training, all new Bus and Rail Operators are trained in de-escalation techniques as a tool that can be used when attempting to diffuse a potentially volatile situation or reduce the level of agitation so that discussions are possible. This training provides an overview of potential passenger issues, behaviors, and methods to employ in order to prevent persons from causing harm to Operators, themselves or others. This subject is also an element of biennial refresher training and can be used in re-training sessions.

Transit Police Community Resource Officers are made available in the districts so that Operators may have an opportunity to express to Transit Police problematic trends on routes, issues with specific passengers or other concerns affecting their security. Prompt communications systems are afforded to Operators via a priority request radio system as well as overt alarms and covert alarms to quickly contact the Integrated Control Center to summon Transit Police assistance at any time during an incident. To ensure prompt response to any calls, Transit Police has established mutual aid with the other communities in the service area should multiple calls occur simultaneously or because response might be delayed due to time, traffic, incident location, etc.

Surveillance camera systems with audio capabilities and live feed displays (Infotainment) are present in revenue vehicles to act as both a deterrent and an investigative tool should an assault occur. Any GCRTA employee who has been assaulted will have a Transit Police Detective assigned to their case to help the employee through the legal process. Transit Police also serves temporary protection orders on behalf of the court systems.

The COVID-19 pandemic led to the installation of custom designed plexiglass barriers on fixed route buses to provide separation and protection for Operators. These barriers also provide a measure of added security.

To address ATU concerns relative to Operator Assault Mitigation, monthly meetings will be scheduled between Service Quality, Transit Police, GCRTA Labor & Employee Relations and the ATU Local 268.

A review of Operator assaults indicated a correlation between fare disputes and Operator assaults. In 2024, the Authority modified its Operator Handbook with language which removed "challenging the fare" from the Operator's duties. See Operator Handbook section 510 - Fare Collection:

510.1 It is the responsibility of Operators to know the fare structure and properly record fares, both cash and non-cash as well as nonpayment. If a passenger refuses to pay the fare, simply state the fare and continue enroute. Do not challenge the passenger about the fare.

2.3.6 Infectious Disease Exposure Minimization

GCRTA is dedicated to the protection of its customers, employees, facilities, and resources and is committed to ensuring all aspects of its critical business processes during a pandemic/infectious disease outbreak can continue safely and resume normally as quickly as possible. GCRTA's policy regarding infectious diseases is set forth in Chapter 630 of the Codified Rules and Regulations of the Greater Cleveland Regional Transit Authority and in Section 600.05 of the Personnel Policies. In addition, a Pandemic Response Plan has been developed containing strategies to minimize exposure of the public and personnel to infectious disease consistent with guidelines from the Centers for Disease Control & Prevention, State of Ohio and City of Cleveland Department of Public Health. The plan can be found here.

2.3.7 Visibility Impairment Minimization

The PTASP Labor/Management Safety Committee acknowledges that GCRTA's current safety programs address any visibility impairment issues. With the annual review, the PTASP Labor/Management Safety Committee will confer and discuss the number of accidents attributable to visibility impairments and make appropriate updates.

3.0 SAFETY ASSURANCE

3.1 Safety and Security Certification

Transit projects eligible for Federal Transit Administration (FTA) Section 5309 funding or other forms of federal assistance require implementation of a Safety and Security Certification Program. The Safety and Security Certification Plan (SSCP) ensures that any design or operating hazards/threats are identified, monitored, and properly controlled or mitigated, prior to the commencement of revenue service. The SSCP addresses all systems and equipment, which may reasonably be expected to pose hazards/threats to GCRTA customers, employees, contractors, emergency responders, and the general public. The plan identifies the technical and managerial tasks required during the design, supply, construction, and commissioning of any GCRTA project or equipment.

The SSCP ensures all safety critical systems and major capital projects that may impact passenger, employee, or public safety are operationally ready to enter safe and secure revenue service as further delineated in GCRTA's SSCP provided on the GCRTA Intranet under the "Safety Management System" section. Safety and security operational readiness is demonstrated through a safety and security certification program that is developed and implemented for each subsequent operating segment and phase. Rail projects shall be subject to Safety and Security Certification when construction costs exceed $1,000,000 and involve customers; such as rail stations and rail cars. GCRTA's Safety and Security Certification Plan is structured from the FTA's "*Handbook for Transit Safety and Security Certification Final Report"* dated November 2002, which consists of a 10-step certification process as shown below. Each step is explained in detail within the Safety and Security Certification Plan provided on the GCRTA Intranet under the "Safety Management System" section.

A link to the Safety and Security Certification Plan can be found here.

10-Step Certification Process
Planning and Design Phases
Step 1: Identify Certifiable Elements
Step 2: Develop Safety and Security Design Criteria
Step 3: Develop and Complete Design Criteria Conformance Checklist
Construction Phase
Step 4: Perform Specification Conformance
Testing Phase
Step 5: Identify Additional Safety and Security Test Requirements
Step 6: Perform Testing and Validation
Step 7: Monitor and Manage Integrated Testing
Activation Start-up Phase
Step 8: Manage Open Items from SCIL
Step 9: Verify Operational Readiness
Revenue Service and/or Occupation of Facilities
Step 10: Issue Project System Safety and Security Certificate

The SSCPs overall goal is to document the verification and validation process that demonstrates; (1) compliance with Federal, State and GCRTA safety and security requirements, (2) compliance with the project specification requirements, and (3) the implementation of all hazard controls or security countermeasures identified in the hazard analysis, safety assessment process, and the threat and vulnerability assessment process.

- Specific program goals include:
    - Verifying that appropriate codes, standards, and guidelines have been incorporated into the specifications.
    - Ensuring that a thorough and complete system safety/security engineering process is followed throughout the acquisition process.
    - Ensuring that all identified hazards/threats have been eliminated or controlled.
    - Ensuring that normal and emergency hazard resolution methodologies have been implemented.
    - Ensuring that all training required for the safe/secure operation of the new vehicles is complete.
- Specific program objectives that support the above goals include:
    - Identify specific safety and security requirements to ensure the most comprehensive specification possible to avoid inadvertent hazards/threats.
    - Verify that all documentation identified as safety critical has been reviewed to ensure compliance with safety criteria.
    - Verify that testing associated with elimination of control of hazards has been completed.
    - Assure that operations and maintenance manuals reflect appropriate procedures necessary for control of hazards and include appropriate warnings, hazards, and cautions required for safety critical operations.
    - Verify that maintenance and operational personnel are properly trained regarding potentially hazardous operations.
    - Create a verification-tracking log to track all safety related closures that are not complete at the time of revenue operations.

Each critical system element receives a written safety/security certificate. When all required system elements are certified, a system-wide safety/security certificate is issued along with a safety/security verification report. Final authority to approve certification of extensions for revenue service rests with the General Manager/Chief Executive Officer. The GCRTA Safety and Security Certification programs are detailed in separate documents, which include project specific Design Criteria requirements.

3.2 Rules and Procedures Review

3.2.1 Minimum Standards for Safety

The GCRTA Rail Operations Rulebook, Train Control SOPs, Emergency Operations Plan, Right-of-Way-Worker Protection Plan and Administrative Procedure 002 are among the documents considered Minimum Standards for Safety. All of these documents are subject to Configuration Management and formal document control procedures and can be found on the Safety Management System intranet page. The ODOT SSO program requires that GCRTA provide a draft final version of documents considered Minimum Standards for Safety prior to publishing them, for SSO review, approval, and adoption according to 49 CFR Part 674.27(a)(2). The ODOT SSO program provides oversight and enforcement of these Minimum Standards for Safety as part of audits, inspections, and other risk monitoring activities.

GCRTA Documents Considered Minimum Standards for Safety:

Controlled Documents-See SMS Intranet for latest version
Public Transportation Agency Safety Plan (PTASP)
System Security Plan (SSP)
Emergency Operations Plan (EOP)
Rail Operation Rule Book (RORB)
Integrated Control Center (ICC) Train Control SOPs
Service Quality (SQ) Supervisor Handbook
AP 002 – Revenue Vehicle Accident Investigation
AP 016 – Safety Review Policy and Procedures
Safety and Security Certification Plan
Right-of-way Worker Protection (RWP) Plan
Rail Inspection & Maintenance Standards
Configuration Management Plan
Transit Asset Management Plan
Safety Rules
Station Safety & Security Design Criteria

3.2.2 Rule Books

The Rail Operations Rule Book is reviewed and analyzed to ensure it provides for the safe operation of the rail system in normal and emergency conditions, and to ensure compliance with appropriate governing bodies. Revisions to the Rule Book are done by the Rail District Director, or designee, through the issuance of Rail Operating Orders (ROO) that add, delete or otherwise amend a rule in the Rule Book. The ROOs go through a configuration management process before implementation. All Rail Operating Orders are then reviewed at years end for consideration and permanent adoption into the following year's revision and publication of the Rail Operations Rule Book.

The Bus Operator Handbook and the Paratransit Operator Handbook are both a procedures manual and a rule book. Both are designed to be an instructive guide to promote safety and efficiency in day-to-day operations. The subjects covered do not address all possible situations or circumstances that are encountered but attempt to cover those encountered often.

3.2.3 Proficiency Testing – Operators

The Operational Safety Checks Program serves as the foundation for observing, correcting, and documenting safety related behaviors and activities. It is also used to re-enforce positive safety behaviors. Service Quality Supervisors and Training Instructors are responsible for conducting periodic field and on-board bus and rail operations safety checks. Service Quality Supervisors and Training Instructors travel along the rail right of way and/or board trains and buses to observe and evaluate adherence to rules, policies and procedures, verbal or written instructions such as Rail Operating Orders, reroutes, and speed limit compliance. Safety checks are recorded on "In-Service Evaluation Sheets/Bus or Rail Safety Ride Check" forms. Service Quality Supervisors and Training Instructors are authorized to take appropriate and immediate actions if indicated by the situation. Each Rail Operator receives at least an annual safety ride check and Service Quality Supervisors are required to conduct at least two rail safety ride checks per week.

In addition to the on-board safety ride checks, Control Center Supervisors test rules compliance for red signals according to the Rail Operations Rule Book. This test is conducted at least once by each Control Center Supervisor on each shift.

The results of the Bus or Rail safety ride checks activity are forwarded to the appropriate Transportation Manager and Training Manager for review and follow-up to correct any identified deficiencies.

3.2.4 Proficiency Testing – Rail Control Center Supervisors

Control Center Supervisors undergo proficiency testing of rules and procedures on a quarterly basis to ensure Control Center Supervisors are retaining information and training provided for taking appropriate actions to restore and adjust service. Testing will include emergency procedures and notifications, single track operation in cab and non-cab signal areas, dealing with accidents or incidents, managing track problems (debris, gap in switch, water, snow, fire, break or kink in rail) and other issues pertaining to movement of rail equipment and trains. Tests are written examinations up to twenty five questions and field simulations that reference the Train Control Standard Operating Procedure manual, Rail Operating Orders and bulletins, the Consolidated Train Dispatching System (CTDS) manual, and Rail Operating Rulebook.

3.2.5 Proficiency Testing – Power and Way and Facility Maintenance

Facility Maintenance and Power & Way will conduct Proficiency Testing on their respective work crews and/or contractors, and work zones through use of formal inspection or by using the STOP format. Results will be utilized to take improvement steps. Target processes include, but are not limited to, flagging, de-energization, signage, work zone limits, and other safety critical components to ensure compliance with rules, procedures, and work permits. During the course of daily operations, Service Quality will monitor all work crews and zones for compliance and take mitigating safety action(s) should a report of any improper or incomplete work zone be reported. This may include sending a Rail Field Supervisor to verify compliance with the ROW Worker Protection Plan, notifying stakeholders via a Rail Unusual Occurrence page, or requesting the Safety Department to investigate any alleged safety infractions. Service Quality may suspend and shut down any work zone deemed hazardous until any infractions or violations can be corrected. All incidents are to be documented in the TransitMaster Log.

3.2.6 Proficiency Testing Test Records and Trend Analysis

Records of Bus and Rail Operator proficiency tests are kept by the Service Quality Department as the office of record.

The results of Proficiency Testing serve as a data source in the Hazard Management Process. Trend analyses of all operational safety ride check activities and proficiency tests are performed in order to determine revisions needed to training and safety program activities and other areas requiring improvement. The analyses are reviewed at the Executive Safety Committee and submitted to ODOT via PowerPoint presentations.

3.2.7 DriveCam by Lytx

DriveCam, a technology powered by the fleet management solutions company Lytx, provides GCRTA with safety critical fleet insight through the utilization of video data, machine vision technology, and vehicle data. Specific to fixed route bus and Paratransit operations, DriveCam focuses on improving driver and vehicle safety with the use of cameras, sensors, and video.

Lytx DriveCams are mounted on each vehicle's windshield and have both inward and forward facing cameras. The device does not continuously record. Event recordings are activated by hard braking, acceleration, cornering, or collisions. When activated, the device will record the previous 10 seconds and the following 10 seconds. The events are reviewed by DriveCam analysts, assigned scores based upon the risky behaviors present in the 20 second clip, and downloaded to GCRTA's DriveCam database within 24 hours.

The scores of each event correspond to the level of event severity and the necessity for coaching bus operators on their risky behavior. Some high-scoring coachable behaviors include late response, speeding, following too close to another vehicle, or a near collision. Some low-scoring coachable behaviors include not using a seatbelt, distracted driving, or lack of intersection awareness.

GCRTA Operating District personnel are responsible for coaching operators on risky behavior, ensuring operators develop safer driving habits, and helping to improve the safety of passengers and others. All coaches have access to the DriveCam database and must coach the operators in a timely manner. Operators that continuously exhibit risky driving behavior attend additional, lengthier training conducted by the Training Department.

The District Directors are responsible for ensuring the system is being utilized to improve operator performance behaviors, and for identifying trends. The Safety Department assists by recognizing behavioral trends across all Operating Districts, advising Operating District personnel of findings and potential solutions, and launching safety campaigns to encourage safe driving.

3.2.8 Transit Asset Management

GCRTA's approach to asset management is based on the pillars of sustainability (economic, environmental, and social), integrated risk management, and life cycle management. Life cycle management at GCRTA aims to track an asset from conception, creation, acquisition, or enhancement of the asset; the utilization and maintenance of the asset; through to the decommissioning and/or disposal of the asset. With proactive project life cycle management, GCRTA can reduce risk and exposure, improve service delivery, and determine return on investment.

GCRTA defines State of Good Repair (SOGR) as "the condition of an asset where the asset, at a minimum, is capable of delivering the required performance safely and reliably for a predetermined period of time". State of Good Repair may include short or long term, full or partial replacement/rehabilitation based on GCRTA's needs. Critical to the safety and performance of a public transportation system is the condition of its capital assets—most notably, its equipment, rolling stock, infrastructure, and facilities.

GCRTA's Asset Management Policy sets the overall statement on the organization's commitment to asset management and continual improvement and provides executive level direction of expectations and requirements. This document, the Transit Asset Management plan (TAM) addresses the goals and objectives of the organizational strategic plan and the Asset Management Policy and transforms them into a high-level, long- term action plan for the management of the Authority's assets. The TAM addresses the current and future demands on, condition and performance requirements of GCRTA's assets, and plans for how GCRTA intends to deliver these future requirements. The TAM, which is based on the International Standards Organization (ISO) 55000 guidelines for asset management contains information on asset life cycle requirements, asset management objectives, and asset related risks.

GCRTA currently measures State of Good Repair (SOGR) based on asset age, condition, and priority. Those assets below condition rating of 3 or beyond their estimated useful life (EUL) require physical inspection before the assets are programmed in the Capital Improvement Plan (CIP) for replacement or rehabilitation.

GCRTA's approach to asset management has been to (1) implement a single GCRTA-wide system for asset replacement based on asset age, condition, priority and performance; (2) establish a systematic program to prioritize and identify assets in the Capital Improvement Plan (CIP) for replacement or rehabilitation; and (3) provide an information platform for asset reporting and tracking. This process, as articulated in the Asset Management Policy is a seamless, single, coordinated flow of asset information throughout the organization.

It includes the asset management activities that take place using the data captured in CITME Ultramain prior to development of the CIP. GCRTA's process is a "continual feedback loop" in that information flow regenerates throughout the life cycle so that the process is ever evolving and dynamic. This flow serves to inform the entire asset management process, alleviating information isolation. As a result of this integrated flow of information, the asset management system is well positioned to support achievement of the asset management objectives.

Asset lifecycle management is an ever-changing environment with advances in technology, changes in regulation, funding availability and asset management best practices. Therefore, the TAM Plan will be considered a “living document” reviewed and revised, as necessary, on an annual basis. The revisions will come from the TAM Advisory Committee and TAM Technical Working group with inputs from various internal stakeholders. Initial and ongoing training of District employees on the TAM Plan will become part of the business culture to ensure employees are equipped to execute the deliverables of the TAM Plan and facilitate a continuous TAM improvement process.

Each District business unit within GCRTA that is responsible for the maintenance of assets is responsible for maintaining the asset’s state of good repair. Work orders are completed for all maintenance activities and are tracked in CITME Ultramain and utilized for trending and performance analyses. The business units are also responsible for following manufacturer procedures, industry standards and guidelines, and best practices. The business units also explore performance improvement opportunities through analyzing feedback from external and internal investigations of system failures, incidents, and emergencies. This data is used as drivers in determining when or if an asset needs to be replaced or rehabilitated.

Assets that have a role in Safety for our customers or equipment must always be prioritized above convenience and comfort. This group of assets should be immediately addressed with available resources to repair, replace or mitigate the issue.

The asset management function is currently staffed by one full-time Asset Management Program Manager (Asset Manager) with support from 11 Maintenance Planners/District Asset Managers. The Asset Manager works with the asset owners in the District centers to ensure that new assets are added to CITME Ultramain in a timely manner with all required data fields populated, and that areas of low asset performance, non-conformity or risk are identified and addressed. The asset owners and other staff with direct or indirect involvement with the Asset Management Program have been made aware that not conforming to the asset management system requirements can result in lower productivity and sustainability and the inability to accurately forecast their requirements for inclusion in the Capital Improvement Plan. With assistance from internal stakeholders, the Asset Manager is responsible for developing asset management policies, guidelines, processes, and desk procedures as well as other relevant asset management tools, and provides guidance and oversight on their use within the business units.

In addition, the Asset Manager is responsible for monitoring and reporting on the status of GCRTA's Asset Management Program for both current use and short, medium, and long-range forecasting. The Asset Manager briefs the Deputy General Managers (DGM)s, of Operations and Engineering and Project Management, the Asset Management Committee, Capital Program Working Group (CPWG) and Executive Safety Committee (ESC) on a periodic basis on how well the Asset Management Program is performing in meeting its objectives. These individuals who have an impact on the achievement of the asset management objectives are aware of the asset management policy and their contribution to the effectiveness of the asset management system including the benefits of improvement in asset management performance.

The Asset Manager works with the subject matter experts in the districts and offices responsible for managing, operating and maintaining GCRTA’s assets to monitor asset system performance and ensure that corrective or preventive actions are taken in a timely manner, including opportunities for continual improvement. The Asset Manager updates the Manager, Office of Capital Programming and the DGM, Engineering and Project Management when an anomaly or serious risk is detected in the asset management system.

3.2.9 Risk-Based Inspections by ODOT/SSOA

Pursuant to the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (49 U.S.C. § 5329), GCRTA adds the following citations to the Public Transportation Agency Safety Plan to facilitate and comply with Special Directive No. 22-41, Required Actions to Implement a Risk-Based Inspection Program at the Ohio Department of Transportation, the ODOT SSO Program Standard Section 1.8, and Reference Guide Section 5.6.

Risk-Based Inspections – A risk-based inspection program uses qualitative and quantitative data analysis to inform ongoing inspection activities. Risk-based inspection programs are designed to prioritize inspections to address safety concerns and hazards associated with the highest levels of safety risk.

Inspection Access – GCRTA provides ODOT with the authority and capability to enter the rail facilities that ODOT oversees to inspect infrastructure, equipment, records, personnel, and data, including the data that GCRTA collects when identifying and evaluating safety risks.

Inspection Access Policies and Procedures – ODOT, in consultation with GCRTA, has established policies and procedures regarding the access for ODOT to conduct inspections of GCRTA, including access for inspections that occur without advance notice to GCRTA.

Data Collection – GCRTA provides ODOT with the data that GCRTA collects when identifying and evaluating safety risks, such as:

- Safety program data
    - Records of safety events
    - Hazard records
    - Safety risk mitigation records
    - Corrective actions plans
    - Records of near misses
- Maintenance data
    - Inspection and maintenance records and report forms
    - Work orders
    - Records of failures and defects
    - Records of revenue vehicles out of service, including causal information
    - Major maintenance activity schedule and progress
    - Adherence to maintenance schedules, including reports and documentation of deferred maintenance
- Inspection data
    - Inspection records and report forms
    - Records of failure and defects
    - Records of speed restrictions
    - Event and safety risk mitigation verification
    - Adherence to inspection schedules including reports and documentation of inspections not performed
    - Capital project schedules and progress

Data Collection Policies and Procedures – ODOT, coordinating with GCRTA, has established policies and procedures for collecting data described in the Data Collection requirements, including with respect to frequency of collection, that is commensurate with the size and complexity of GCRTA, see the ODOT/GCRTA Data Products List/Table.

Incorporation of These Requirements – Policies and procedures established by ODOT for Risk-Based inspections remain incorporated into the GCRTA Public Transportation Agency Safety Plan.

3.3 Notification Thresholds

3.3.1 ODOT Notification

State Safety Oversight Program Standard, SSO-003 provides the procedure for notification processes to be used for reportable safety events (accidents/incidents) that occur on the GCRTA rail system and rail related property.

Notification requirements are provided in federal and state regulations, and additional guidance has been provided by FTA, including the National Transit Database (NTD) reporting requirements.

- Federal Regulation – 49 CFR Part 674.7 and 674.33
- FTA Guidance – Two-Hour Accident Notification Guide, https://www.transit.dot.gov/regulations-and-guidance/safety/two-hour-accident-notification-guide-0
- NTD Safety & Security (S&S) Reporting Manual, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/ntd/69096/2018-safety-and-security-policy-manual.pdf The Safety Department will immediately, (within 2 hours) notify ODOT by telephone, followed by a fax report, of any incident (safety event) resulting in the following:

GCRTA Reportable Event Notification Process: As defined in 49 CFR Part 674.33(a), notification shall be made to the ODOT SSO program staff, by telephone, within two (2) hours for any safety event.

If the safety event is reportable to the FTA (49 CFR Part 674), GCRTA will notify FTA with initial information, as required by FTA and also within the 2-hour time period, at CMC-01@dot.gov (preferred) or telephone at (202) 366-1863. Include the ODOT SSO program contacts in the table below on any email with FTA and any response.

Notification Topics	FTA (2 hours)
Fatalities	One or more fatalities within 30 days of safety event
Injuries	One or more serious injuries
Collision between a rail transit vehicle and another rail transit vehicle	All, except normal coupling of rail cars in a yard
Collision of a rail transit vehicle at a grade crossing	Only those resulting in substantial damage, serious injury, or fatality

Collision of a rail transit vehicle with a person, motor vehicle, or object	Only those resulting in substantial damage, serious injury, or fatality
A runaway train	For trains, not all rail transit vehicles
Evacuations	Due to life safety reasons, All
Derailments	All, Mainline or Yard
Property Damage	Substantial damage only for collisions with a person, object, or at a grade crossing

Per 49 CFR Part 674.7, If a rail transit agency or State Safety Oversight Agency later determines that an Incident (safety event) meets the criteria in this section, that safety event must be reported to the SSOA in accordance with the thresholds for notification and reporting set forth in Appendix A to this part. As an example, the disabling damage sustained by a railcar may not be readily known until the scene at a grade crossing collision is clearing and this reference allows for the 2-hour notification period to begin at the time the rail transit agency is aware of the accident meeting a reportable threshold.

Additionally as required by ODOT in the State Safety Oversight Program Standard SSO-003:

Significant Hazardous Conditions: GCRTA must notify the ODOT SSO program staff of the following state-defined events (these will be marked 'other' on the notification form). The ODOT SSO program has the authority to require these additional event types per 49 CFR Part 674.25(c) and (d).

- Collision of a rail vehicle.
    - With a motor vehicle, not at a grade crossing (excludes mirror strikes).
    - With a motor vehicle at a grade crossing, non-serious injuries and less than substantial damage.
    - With a person, non-serious injury.
    - With an object, non-serious injuries and less than substantial damage.
- Evacuation of a rail vehicle to the right-of-way or into street/traffic, not for a life safety reason (as of 04/30/2020, no longer requires automatic investigation for the ODOT SSO Program).
- Substantial damage for all rail related assets or exceeds $25,000, excludes collisions or derailments that are defined as accidents above.
- Hard couple (less than substantial damage) in a yard (as of 04/30/2020, no longer requires automatic investigation for ODOT SSO Program).
- Split switch – rail revenue vehicle or work vehicle.
- Close calls.
    - Rail vehicle to rail vehicle, including rail work equipment.

    - Rail vehicle to motor vehicle or object.
    - Rail vehicle to workers on the right of way.
- Damage to the OCS that disrupts service – includes significant OCS damage or pull downs and chipped/damaged pantographs.
- Two or more persons transported for at least medical assessment, no obvious serious injury.
- Any rail system related hazardous condition determined to be an Unacceptable Hazardous Condition.

Notification Form Required Content:

- Name of the Rail Transit Agency.
- Name and job title of person reporting.
- Event type (fatality, injuries, property damage, evacuation, derailment or other).
- Location, time, and date.
- Fatalities.
- Injuries;
- Rail transit vehicle(s) involved (type, vehicle numbers, rail line).
- Property damage estimate.
- NTSB notification report number, if applicable.
- If shared corridor with freight railroad, note if railroad contacted or has made contact.
- GCRTA primary person conducting the investigation (name, title, telephone and fax numbers, email address).
- Description of the event being notified and reason for any delay in 2-hour notification.

3.3.2 NTSB Notifications

The Safety Department, with assistance from State Safety Oversight, will notify the NTSB within two hours, by telephone of any accident involving:

- Passenger or employee fatality (except suicide and exclude trespassers).
- Two or more passengers or crewmembers seriously injured or hospitalized.
- Accident requiring emergency evacuation of passengers from the train.
- Fatality at a grade crossing.

No later than four hours after an accident, any accident which results in:

- Accident damage of $25,000 or more to a passenger train and railroad and non-railroad property.

3.3.3 Transit Police Notifications

The Integrated Communications Center notifies Transit Police of any incident involving injury to a passenger or the public, of any collision at a grade crossing, and of any other emergency incident within 15 minutes of occurrence.

3.3.4 Safety Department Notifications

The Integrated Communications Center notifies the Safety Department of all injury and collision accidents in accordance with ODOT's State Safety Oversight Standard and reporting thresholds specified in AP-002 regarding accident reporting, and any other emergency incident within 15 minutes of occurrence.

3.3.5 Accident Investigation Process

Service Quality initiates the notification to internal GCRTA employees for bus and rail incidents. The level of investigation required is dependent on the seriousness of the event. Please refer to Section 2.2.9: Accident Reporting.

3.3.6 Non-Serious Injury and Damage Investigations

Accidents and incident that do not involve serious injury and/or damage usually require only an initial investigation by the Service Quality Supervisor responding to the scene. The Supervisor at the scene:

- Commences an investigation.
- Conducts interviews, as appropriate.
- Gathers and collects the physical evidence.
- Submits a report based on the information collected to the Safety Department and Claims Department.

3.3.7 Serious Accidents/Incidents

The Safety Department leads the accident investigation of all Rail, Bus and Paratransit accidents/incidents that are either reportable to ODOT and/or NTSB or non-reportable. However, personal injury and extent of damage are not the sole criteria. Any unacceptable hazardous condition can potentially be investigated.

3.3.8 Safety Department Review

The Safety Department reviews all incident reports for potentially serious incidents or conditions. Additionally, when accident/incident reports and statistics show repetitive trends, an investigation may be initiated to determine the causal factors and required corrective actions.

3.3.9 ODOT Review

GCRTA will maintain a Corrective Action monitoring log (SMART Log) and will provide ODOT with monthly corrective action implementation updates. GCRTA will provide written verification to ODOT when a corrective action has been fully implemented. The Safety Department uses the same SMART Log to track the status of non-reportable, Bus, APTA, Fire Insurance Carrier and other Safety Assurance audit corrective action plans until evidence of closure is submitted by the responsible party or department. ODOT and FTA can require/order CAPs for implementation by GCRTA per 49CFR Part 674.

In the event that the NTSB conducts an investigation, GCRTA and ODOT will review the NTSB findings and recommendations to determine whether or not a CAP should be developed. GCRTA will develop a CAP if required either by the NTSB or ODOT. GCRTA will provide ODOT with the following information regarding the CAP:

- Alternative actions for implementing a CAP, if any.
- Verification that the corrective action(s) has been implemented as described in CAP or that proposed alternative action(s) has been implemented.
- Monthly reports detailing the status of each corrective action(s) not completely implemented as detailed in the CAP.

3.4 Internal Safety Audit Program

Verification of compliance with the Public Transportation Agency Safety Plan requirements are accomplished through reviews, tests, analyses, reports, inspections, audits, investigations and drills. Audits are primarily of the GCRTA Service Quality Management and Operating District Transportation and Maintenance departments' functions. However, all GCRTA departments with system safety responsibilities, including applicable contractors, are subject to planned and periodic reviews by the Safety Department in order to achieve continuous improvement.

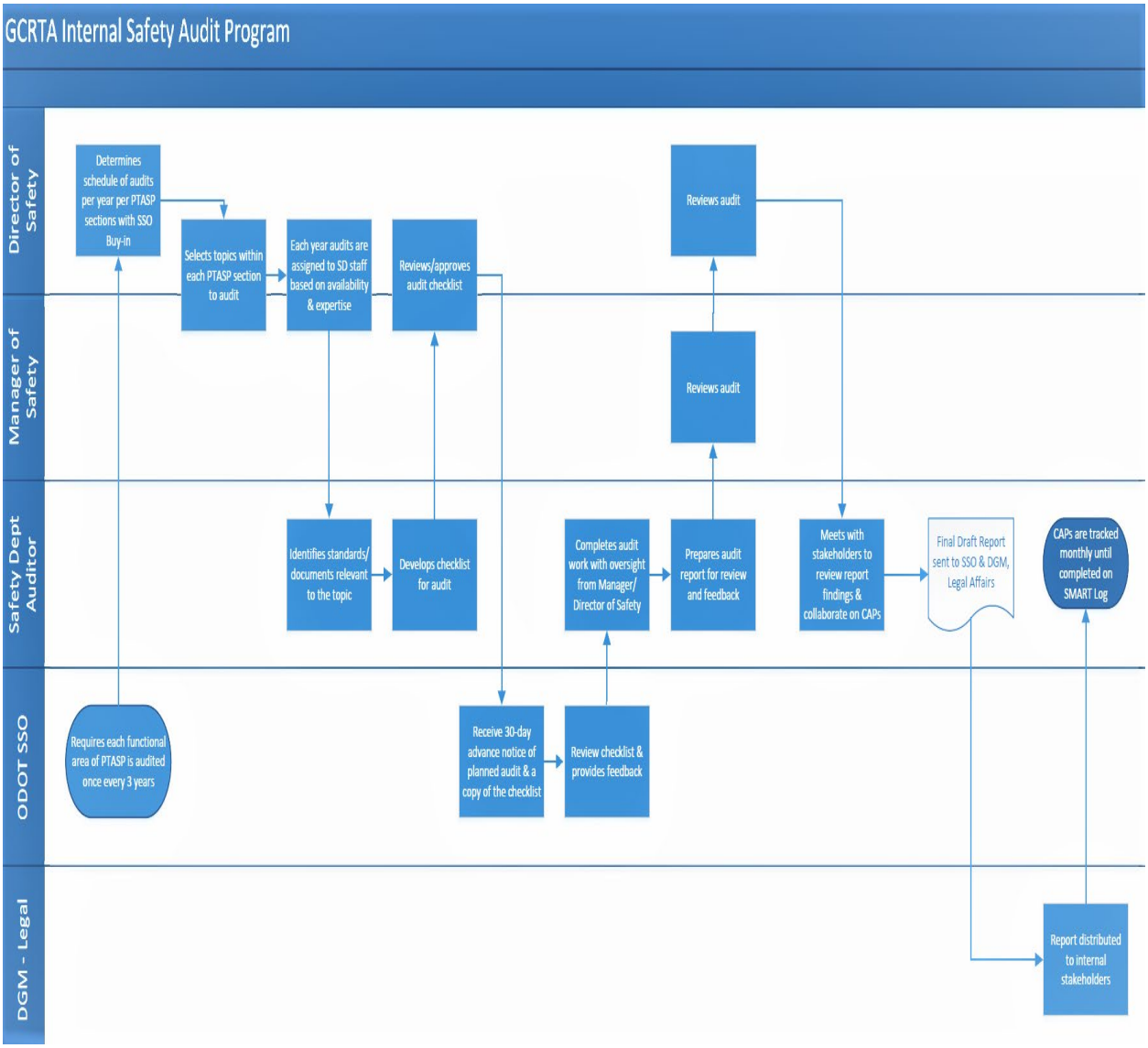
3.4.1 Audit Responsibility

The Director of Safety has the responsibility for the implementation and oversight of the safety audits while keeping in mind the independent nature of the audit process. The Director of Safety or the Manager of Safety selects the Audit Team and Leader proficient in the areas being audited, ensuring that the audit team does not include staff from the functions and/or units being audited.

3.4.2 Audit Process

The Director of Safety ensures a pertinent scope is determined and that input is obtained from those responsible for the topics/subjects of the audit and assures that all audits are conducted in a cooperative manner. Auditing will normally include a checklist of items to be reviewed or questions to be answered. The process will allow for a debriefing of findings with the responsible parties as well as a review and comment period to allow for final input and the determination of target completion dates for corrective action plans.

All audits are fully documented and reported. Upon the completion of each review and audit, the Safety Department issues a report of the results that identifies areas of deficiency, provides recommendations and identifies corrective actions. Corrective actions and schedule for implementation are reviewed and approved by the Director of Safety and are tracked until completed by the Safety Department. Copies of the report are distributed to the audited department, the Accountable Executive, the Chief Safety Officer and to members of the Executive Management Team.



3.4.3 Organizational Functions Audited

The following organizational functional areas are included in the audit process:

- Hazard Management Process
- System Modification Review/Approval Process
- Safety Certification
- Safety Data Acquisition and Analysis
- Accident/Incident Notification, Investigation, and Reporting
- Emergency Management Program
- Rules and Procedures Development, Maintenance, and Compliance
- Facility and Equipment Safety Inspections
- Maintenance Audits and Inspections
- Training and Qualification Program
- Configuration Management
- Employee and Contractor Safety Program
- Hazardous Substances Programs
- Drug and Alcohol Programs
- Procurement

3.4.4 Occupational Safety and Health Compliance Verification

The Safety Department is responsible for monitoring and ensuring compliance with all applicable federal, state, and local codes. It is the responsibility of each director, manager, and supervisor of each department to maintain a safe and healthful work environment for all employees assigned to activities under their direction.

Verification of compliance is accomplished through the use of reviews, inspections, and analysis of injury/illness reports. Additional data is provided by the Risk Master Database, which is maintained by the Risk Management Department.

Disciplinary procedures have been established for those that repeatedly fail to comply with applicable GCRTA occupational safety and health program requirements. Examples of employee actions that are subject to disciplinary action are failure to use/wear required personal protective equipment; failure to follow rules, procedures and policies; failure to follow proper chemical handling procedures; and the unauthorized modification of safety equipment and devices.

Construction safety is the responsibility of each respective contractor. The GCRTA audits compliance with the construction program requirements through reviews of contract documents and specifications, testing, and inspections of on-site work activities. The Safety Department periodically monitors compliance with the construction safety requirements.

3.4.5 Audit Schedule

Each audit area is reviewed at least once every three years, with approximately one-third of the functional areas audited each year. An audit schedule is prepared annually, with specific audit dates communicated to ODOT when established. At least 30 days advance notice of the planned audit is communicated to ODOT.

3.5 Procurement and System Modifications

Any changes or modifications to GCRTA transportation systems are controlled to assure that safety is incorporated into the plans and designs of the modified system in accordance with the Safety Review Policy & Procedure AP-016 and Configuration Management Plan which are found on the GCRTA Intranet as Minimum Standards for Safety. The procurement and construction of new facilities, infrastructure rehabilitation/redesign projects, the purchase of rolling stock, and the purchase of new chemicals or hazardous substances all require adherence to AP-016 to ensure all bid/proposal documents are reviewed and approved by the Safety Department prior to award. Contract Administrators for the Procurement Department ensure Project Managers, responsible for the scope, design, drawings, and technical specifications, provide evidence that the Safety Department has reviewed and concurred by submitting GCRTA Safety Review form #72-1084 or a substitute form. The Safety Department maintains a log of submittals to document and track the review process. This log has been audited against the monthly report published by the Engineering & Project Management Division for Safety Assurance that the procedure remains in effect.

Modifications to the system may be proposed by any user or District department within the GCRTA, or may be initiated by GCRTA Management, including Safety. A coordinated process of safety review (design, plan and procedure review) is required prior to any changes and modifications to the GCRTA transportation system. This applies to all modifications, including but not limited to the following:

- New or retrofitted rolling stock, or non-revenue vehicles and equipment.
- New or refurbished facilities.
- New or revised emergency operating procedures.
- Safety-related policies and procedures.
- New or existing station, right of way, traction power, OCS, track, and signals.

Safety reviews of system modifications, which involve design of new systems, facilities, and facilities equipment, are coordinated by the Director of Engineering and Project Development and at times the Operating District. Safety reviews of system modifications for major projects or equipment are designed and coordinated by Engineering and procured through the Procurement Department.

Safety reviews of rolling stock, and other non-revenue vehicle changes are coordinated by the Fleet Planning and Engineering Division of the Fleet Management Department or the Operating District.

Safety assurance of new systems and equipment begin with the basic designs, and in the development of specifications to ensure that safety requirements and standards are incorporated. Safety reviews are held to ensure that proposed designs meet safety requirements. Consideration is given to such items as system interfaces, human factors, environmental conditions, isolation of energy sources, materials compatibility, use and long-term storage of critical material, emergency response capability, including emergency egress and rescue paths, fire sources and measures for protection, equipment layout, lighting requirements, and maintenance requirements. In these reviews maximum use is made of existing data, reliability analyses, and other applicable design analyses and information.

Analyses or evaluations are conducted on test plans, procedures, and related test equipment; operational plans, procedures and related operational support equipment; demonstration and evaluation plans, procedures, and related support equipment; and on maintenance plans, procedures, and related maintenance equipment. Results of these analyses or evaluations are used to verify the required safety level or identify the necessary changes for incorporating into the safety provisions.

Testing is performed on critical components and assemblies as indicated in safety reviews to identify and eliminate potential hazards. The inherent safety of equipment and its impact on GCRTA operations systems are demonstrated during system test and demonstration efforts. A formal process of hazard identification, analysis and resolution is conducted during the safety review.

Safety reviews resulting in system, facility, operational, or equipment changes are tracked through the Configuration Management System, maintained by the Engineering and Project Management Division or Fleet Management, as applicable, to assure that design changes and modifications are appropriately documented, evaluated and that the change does not degrade safety and performance.

The proposed system modifications are coordinated by the Director of Engineering and Project Development, Procurement Department, Operating District, or Director of Fleet Management, as applicable, and reviewed by the affected GCRTA Departments and by the Safety Department.

The review cycle shall include but not be limited to the members of GCRTA's Executive Safety Committee, as applicable to their areas of responsibility, the scope and nature of proposed change, and the affected system elements (facilities, equipment, etc.). In all cases the review cycle for system modification include, at a minimum, the appropriate representative from the:

- Safety Department
- Operating District Departments
- Service Quality
- Engineering and Project Management, Procurement, and/or Fleet Management Departments
- Transit Police
- Training Department

External review of system modifications by outside agencies such as FTA, APTA, and ODOT, are coordinated by the Director of Safety, as required.

Comments from the internal and external review process are implemented or resolved prior to system modification and kept on file with disposition and supporting rationale. Unresolved comments and exceptions to proposed modifications of the system offered by the reviewers, are addressed by the Director of Engineering and Project Development, or the Director of Procurement or Director of Fleet Management, as applicable, and by the Director of Safety in the forum of the Executive Safety Committee. The committee shall conclusively resolve any outstanding exceptions and document the resolution action in its minutes.

Additionally, all major modifications to GCRTA systems require approval and sign-off by the General Manager/Chief Executive Officer**.**

Controlled copies of approved change, including a safety review or configuration control revision sheet, are distributed by the Director of Engineering and Project Development or the Operating District to all GCRTA drawing and plan-holders, identifying revision number, date and applicability to the appropriate mode of transportation.

3.5.1 Contractor Safety Coordination

Contractors are required to abide by Safety Specification 014500 which is included as part of all procurement specifications. Safety Specification 014500 outlines the requirements that all contractors perform their work in a safe manner, comply with all environmental safety and health requirements of the contract documents as issued by GCRTA, and comply with all applicable laws, codes, ordinances, rules, regulations, and lawful orders of all public authorities.

The specification outlines safety programs, first aid, personal protective equipment, fall protection, hazard communication, hot work, contractor safety plans, workers compensation, inspections, training, violations, and reports. The GCRTA Engineering Project Manager is responsible for ensuring contractor compliance. Safety Department representatives respond to tips or complaints from individual employees regarding contractor's breaching the safety specification and performs periodic site walkthrough audits for contractor compliance to specification 014500.

3.5.2 Configuration Management

Refer to the Configuration Management SOP on the GCRTA Intranet located here.

Configuration Management is a set of interrelated processes, management techniques, and supporting tools that assure:

- Our assets are maintained and configured as designed, and conform to requirements.
- Changes to our Configuration Management Plan are properly evaluated, authorized, and implemented.
- All information/data necessary to manage our end items and other related work products is: (a) kept current and accurate, (b) properly structured for users' needs, and (c) readily available to all who need to know.

Configuration Management ensures that an organization is making informed business decisions, performing correct actions, and that all work products are what they are intended to be at every point in the lifecycle. Configuration Management provides the principles, practices and procedures to accurately establish and control asset generation, maintenance and repair, modification, upgrade, and disposal. The prime objective of Configuration Management emphasizes safety related to the design, construction, maintenance, repair, modification, upgrade and disposal of any part of the GCRTA system and its assets. Configuration Management processes secure and protect quality in many facets of day-to-day operations as well as providing a means of constructing new assets while maintaining requirements for quality and safety. Configuration Management ensures that operations, maintenance, repairs, and modifications of, vehicles, equipment, facilities, and structures are intrinsically safe as related to the asset itself, the personnel using it and the environment. All new and existing assets of the GCRTA will fall under the guidelines of Configuration Management, thus guaranteeing good design, construction, and operation.

Configuration Management is the set of practices and procedures of identifying all components and their relationship in a dynamic and continually evolving system for the purpose of maintaining integrity, traceability and control over change throughout the cradle to grave lifecycle of the component. Intrinsic to the stated goals and objectives, a clear set of procedures exists, referred hereafter as Standard Operating Procedures (SOP). These SOPs ensure integrity controlling the documentation of initial state of and changes to equipment defined as GCRTA assets. These practices will ensure that appropriate personnel have been provided accurate reference documentation for maintaining components and any modifications to components are properly and systematically documented.

A change in configuration refers to a modification that may result in the physical and/or operational features of any asset. The Configuration Control Board (CCB) will be responsible for reviewing any changes new and existing that do not meet the original design or intent of an asset or system. The Manager of Asset & Configuration Management will review the Asset Change Request Form. If the asset or system in question is not a “like for like” replacement it will go to the CCB for further review to ensure the integrity of the asset or system is not compromised. The CCB will assess each type of change to determine the mechanisms for initiating changes and link them to the change control process. Once change mechanisms are defined, the CCB will ensure that the change control process is properly integrated.

The CCB will consist of the DGM of Operations, Manager of Asset & Configuration Management, Engineering Manager, Safety Manager and/or Safety Director, District Director where asset/system is being replaced, and any support personnel who have knowledge of the asset/system being replaced.

4.0 SAFETY PROMOTION

4.1 Training

Training tasks include but are not limited to the following:

- Integrates safety requirements into training programs.
- Provides feedback to various departments on procedures, rules, designs, and operating conditions as a result of training experiences.
- Helps validate safety training effectiveness to assure that training objectives have been met.
- Identifies training objectives and participates in safety drills and simulations.
- Designs and conducts new operator training/qualification and rail operator re-qualification training to ensure that all operators are aware of hazards in the system, are familiar with emergency procedures, and meet operating performance standards.
- Reviews and updates training materials at least every three years to comply with operating policies and procedures and results of safety analysis.
- Contributes to information in operating and maintenance manuals and Emergency Operations Procedures (EOPs).
- Establishes selection standards for instructors that include safety performance and knowledge of safety policies and procedures.
- Establishes formal procedures for evaluating student understanding of safety rules and procedures as well as actual demonstration of correct techniques at an acceptable level of performance.
- Develops and maintains a short range and long-range training plan that identifies what programs will be provided and to how many personnel.
- Designs and conducts new and continuing staff training to ensure that all maintenance staff are familiar with shop safety rules and procedures, oriented to the location of safety equipment in their assigned facility, and aware of preventive maintenance and repair procedures.
- Includes orientation on basic safety program to all new employees.
- Develops training resource materials for safety-related training for all rail employees.
- Assists with providing safety training for outside agencies and contractors.
- Includes special training for responding to the needs of elderly and disabled riders as part of training programs for all operating and support personnel.
- Designs and implements a basic defensive driving program required for all GCRTA employees who may be assigned to operate non-revenue equipment.
- Establishes procedures for safety certifications that include identifying who is authorized to do training and set proficiency standards.

Training and certifications required for mechanics is controlled during the hiring process, with minimum requirements, background checks, and testing verifying employee training and competence. All entry-level mechanics undergo GCRTA mechanical training to ensure competence for GCRTA maintenance tasks. Testing is required to demonstrate proficiency for advanced mechanics positions such as HVAC or Electrical mechanics.

GCRTA is currently working to create a new position titled, Facilities Maintenance Instructor. This person will be responsible for creating a training curriculum that includes external training resources based on individual needs. GCRTA remains committed to providing training resources necessary for employees to complete their jobs safely, effectively, and efficiently.

The Safety Department monitors employee driver's license status from reports from the Bureau of Motor Vehicles through a third-party service. The Safety Department is required to verify that each employee has a valid driver's license. The Safety Department checks licenses for all employees on a monthly basis.

4.1.1 Bus Operator Training

The keystone in any program for safe bus operations is the training of bus operators. Several of the bus operations training practices are described here in some detail.

There are Operator Instructors residing at Hayden District, Triskett District, and Paratransit District. Their responsibilities are to train all new and current bus operators having duties that involve operations on the bus line. Safety-related issues and procedures are covered throughout training. The instructors regularly develop training materials and routinely obtain and review information from other bus transit systems.

New Bus Operators are trained for 10 weeks if hired with a Commercial Driver's License (CDL) or for 12 weeks if hired without a CDL. This includes the use of manuals provided by the bus manufacturers that highlight safety issues. Refresher training is done for Operators on a biennial basis. This is a 1-day class that is changed every 2 years. The class is taught at the West Park Training Center and includes the Brake Reaction Test on the Simulator. The bus instructors also provide training for certain non-operator bus employees. Classes are given for initial job training, new equipment/procedures, or refresher training. Training for supervisors varies according to need. CDL training is provided for Mechanics, Hostlers, and Facilities Maintenance personnel.

4.1.2 Rail Operator Training

Rail Operator Training is a 60-day program (approximately 12 to 13 weeks) with an additional week of Instructor follow-up with the students after they have received Operator Certification and been entered into revenue service.

- New Operator Training consists of: Rail Orientation; Customer Service & ADA Sensitivity; Fare Structure & Collection Procedures; Defensive Operating; Schedules; Documentation & Form Completion; Rail Operations Rule Book; Policies & Procedures; Radio Communication Protocol; LRV & HRV Operation; Signals (Cab & Wayside), Switches; Flagging Procedures; Single Tracking; Territory Familiarization; Yard Operation; and Mainline Operation.

- Operator Certification requires: 80% passing score on the Rail Operations Rule Book Examination; 80% passing score on all General Knowledge Examinations; and successful demonstration of ability with assigned Rail Training Instructors.
- Operator Biennial Re-Certification requires: 80% passing score on the Rail Operations Rule Book Examination; 80% passing score on all General Knowledge Examinations; and successful demonstration of ability with assigned Rail Training Instructors.
- Operator Re-Instruction is conducted: After a significant change to the Rail Operations Rule Book or functionality of the operating system; Post Incident or Accident; Upon request of the Rail District Director or Manager; or as result of a cardinal rule violation.

4.1.3 Service Quality Rail and Control Center Supervisor Training

- Service Quality Rail Supervisors receive training from the Rail Operator curriculum, on-the-job training in: Incident Command & Emergency Response; Rail Accident/Incident Investigation; Efficiency Testing; Track Allocation; and On-Track Safety.
- Control Center Supervisors receive training from the Rail Operator curriculum, on-the-job training in: Train Control; Dynac; CTDS; Central Communications; Radio System; Transit Master; Train Control SOPs; Emergency Response Management; Track Allocation; System Recovery Methods; Accident / Incident Investigation; Rail Rule Book.
- Rail and Control Center Supervisors Certification: 80% passing score on the Rule Book Examination; 80% passing score on all General Knowledge Examinations; and successful demonstration of ability with assigned Rail Training Instructors.
- Rail and Control Center Re-Certification: 70% passing score on the Rail Operations Rule Book Examination; 70% passing score on all General Knowledge Examinations; and successful demonstration of ability with assigned Rail Training Instructors.

  The certification period is noted as follows:

  - 70%-79% Six (6) month certification
  - 80%-89% One (1) year certification
  - 90%-100% Two (2) year certification
- Rail and Control Center Supervisor Reinstruction is conducted: After a significant change to the Rail Operations Rule Book or functionality of the operating system; Post Incident; upon request of the Service Quality Director or Manager; or as result of a cardinal rule violation.

4.1.4 Rail Equipment Personnel Training

Maintenance requirements, methods and procedures for rail equipment and systems are described in manufacturers' manuals, maintenance procedures, and other documentation are used in the on-the-job training of rail maintenance personnel. Safety instruction is conducted by the Rail Training Department.

Rail Equipment personnel who are required to operate heavy and light cars, hi-rail equipment, heavy equipment, or specialized vehicles/equipment/apparatus receive instruction on the equipment's operating procedures and on their proper and safe operation.

- Rail Equipment Personnel Certification: 80% passing score on the Rail Operations Rule Book Examination; 80% passing score on all General Knowledge Examinations; and successful demonstration of ability with assigned Rail Training Instructors.
- Recertification of Rail Equipment Personnel: 80% passing score on the Rail Operations Rule Book Examination; 80% passing score on all General Knowledge Examinations; and successful demonstration of ability with assigned Rail Training Instructors; 70% passing score on any Apprenticeship related examinations set by the Joint Apprenticeship Committee (JAC).
- Rail Equipment Personnel Re-Instruction is conducted: After a significant change to the Rail Operations Rule Book or functionality of the operating system; Post Incident or Accident; Upon request of the Rail District Director or Manager; or as result of a cardinal rule violation. Supervisor Toolbox discussions are also used to instruct employees on new procedures and issued ROOs.

4.1.5 Power & Way and Facility Maintenance Training

Power and Way and Facility Maintenance requirements, methods and procedures are described in manuals, manufacturers' handbooks, maintenance procedures, and other documentation, and are used in the on-the-job training of Power and Way staff. Safety instruction is conducted by the Rail Training Department.

Power and Way and Facility Maintenance staffs who are required to operate high rail equipment, heavy equipment, or other specialized vehicles/equipment/apparatus receive instruction on the operating procedures and in their proper and safe operation.

- Power & Way and Facility Personnel Certification: 80% passing score on the Rail Operations Rule Book Examination; 80% passing score on all General Knowledge Examinations; and successful demonstration of ability with assigned Rail Training Instructors.
- Biennial Power and Way & Facility Personnel Re-Certification: 80% passing score on the Rail Operations Rule Book Examination; 80% passing score on all General Knowledge Examinations; and successful demonstration of ability with assigned Rail Training Instructors.
- Power and Way & Facility Personnel Re-Instruction is conducted: After a significant change to the Rail Operations Rule Book or functionality of the operating system; Post Incident or Accident; Upon request of the Rail District Director or Manager; or as result of a cardinal rule violation. Supervisor Toolbox discussions are also used to instruct employees on new procedures and issued ROOs.

4.1.6 Contractor Training

Contractor personnel who are authorized to work in the right-of-way under live rail traffic are required to attend an on-track GCRTA safety & flagging course consisting of: Rail Operations Rule Book rules; Right of Way Worker Protection Plan Training with or without flagging depending on request and Rail SOPs.

4.1.7 Other Personnel

The Rail Training Instructors also provide safety training for other GCRTA Rail Operations and other associated staff including, initial training in a job, new equipment/procedures, and refresher training.

4.1.8 Training Records

The Rail Training Department maintains records of training activities and certifications for: Rail District Employees; Service Quality Employees; Contractor personnel; and other trained personnel.

In addition the Rail District Transportation, Service Quality Management, Engineering and Project Management, and other Departments maintain records for their respective employees and contractors

All training conducted by GCRTA is recorded in the Oracle Learning Management System (OLMS). Employees and Management can access training records in Oracle LMS or training reports can be requested through the Training Department.

Safety specific training is tracked by the Safety Trainer in the Training Department to ensure all employees receive the safety training required for their job classification. The Occupational Health Department tracks the status of Operator medical cards as required by GCRTA Policy.

4.1.9 Compliance with Training and Certification Requirements

The Safety Department conducts audits of training and certification requirements.

4.1.10 Public Transportation Safety Certification Training Program

The FTA's Public Transportation Safety Certification Training Program (PTSCTP) regulation at 49 CFR Part 672 establishes minimum training requirements for rail transit agency personnel and contractors who are directly responsible for safety oversight. In compliance with the PTSCTP, all GCRTA employees and contractors directly responsible for safety oversight are required to enroll in the PTSCTP and obtain PTSCTP certification within three (3) years of enrollment.

The FTA defines a position as directly responsible for safety oversight if its primary function includes the development, implementation and review of the agency's safety plan and SSOA requirements. By this definition, the following positions are designated as PTSCTP participants, and are required to obtain PTSCTP certification:

1. Director of Safety
2. Manager of Safety
3. Environmental Health and Safety Specialists
4. Safety Data Compliance Analyst

In the absence of PTSCTP certification, investigators will work under the guidance and approval of a certified member of the Safety Department, normally the Manager of Safety and/or the Director of Safety. Any investigative work performed by a consultant or contractor will also be reviewed and approved by a certified investigator.

Contractors hired to perform safety and security consulting are also designated as PTSCTP participants and are required to obtain certification. While Internal Audit positions perform safety audits, their primary function is not considered to be directly responsible for safety oversight, and therefore does not require PTSCTP certification.

To obtain PTSCTP certification, designated employees and contractors must first enroll in the PTSCTP by emailing the FTA at FTASafetyPromotion@dot.gov to request an Individual Training Plan (ITP), listing their position and phone number in the email. An ITP is a list of courses which must be completed in order to receive PTSCTP certification. PTSCTP designated employees and contractors can expect to be assigned the RTA Track as their ITP. The RTA Track is comprised of these six (6) courses offered by the Transportation Safety Institute:

1. SMS Awareness
2. SMS-Safety Assurance
3. SMS Principles for Transit
4. Transit Rail System Safety
5. Transit Rail Incident Investigation
6. Effectively Managing Transit Emergencies

Once an ITP is received from the FTA, all of the courses in the ITP must be completed within three (3) years of enrolling in the PTSCTP to obtain certification. These courses may be completed online or in-person by registering on the Transportation Safety Institute's website.

While the Bus Track ITP offered by the TSI is not considered mandatory by the FTA for personnel directly responsible for bus safety oversight, GCRTA requires PTSCTP designated employees to complete the two (2) additional TSI courses found in the Bus Track ITP. These courses are Transit Bus System Safety and Fundamentals of Bus Collision Investigation. Bus Track courses are not subject to the three (3) year certification time limit and do not require refresher training. PTSCTP designated contractors are not required to complete Bus Track courses.

After obtaining PTSCTP certification, all designated employees and contractors are required by the FTA to complete refresher training every two (2) years. The refresher training must include, at a minimum, one (1) hour of agency defined safety oversight training and any recertification training specified by the FTA, to remain certified.

Every two (2) years GCRTA will require PTSCTP designated employees and contractors to take one (1) of the following courses:

1. Rail Operations Rule Book (GCRTA)
2. Right-Of-Way Worker Protection Plan (GCRTA)

3. Proof of Attendance for FTA's Joint State Safety Oversight and Rail Transit Agency Workshop
4. Transit Industrial Safety Management (TSI)
5. Repeat any TSI RTA Track Course (SMS Awareness, SMS Safety Assurance, SMS Principles)

For FY 2025, FTA specified recertification training is a course entitled, "*The Advancing Safety Assurance Through Corrective Action Plans"* available on TSI's Learning Management System which is a 1-hour self-paced eLearning course designed to equip safety staff to create SMART CAPs that strengthen compliance oversight and drive continuous improvement.

After completing refresher training, employees and contractors must email the FTA at FTASafetyPromotion@dot.gov before their 2-year certificate expiration date, providing a certificate of completion for the refresher training course. Each refresher training certificate must be stamped by the GCRTA Safety Department prior to being sent to the FTA, which affirms that the completed course was assigned as refresher training by GCRTA.

The Safety Department is responsible for maintaining PTSCTP compliance by ensuring that all PTSCTP designated employees and contractors complete required training, and by retaining evidence of technical training for all participants. PTSCTP designated employees and contractors are responsible for obtaining certificates for each course completed, which are to be sent to the Safety Department for safety assurance. In compliance with the PTSCTP, all employee and contractor training is kept in a physical binder for five (5) years after it is completed. This 5 year period is affirmed in GCRTA's Records Retention Schedule. Training records may be audited by ODOT, FTA or any State agency with jurisdiction over transit safety oversight. Training records may also be requested by NTSB as part of an accident investigation. GCRTA as a whole maintains certification by self-certifying that it is in compliance with PTSCTP. Self-certification occurs annually as a part of Certifications and Assurances affirmation in FTA's Transit Award Management System (TrAMS).

4.1.11 Compliance with Local, State, and Federal Safety Requirements

Safety Program for Employees and Contractors

GCRTA is committed to the safety and health of its employees and contractors who work within the GCRTA transit system. GCRTA has developed an Occupational Safety and Health Program and Construction Safety Program in conformance with applicable local, state, and federal regulations. The programs emphasize the recognition, evaluation, and control of hazards arising from the occupational and construction project environments.

Occupational Safety and Health Program

The Occupational Safety and Health Program is directed toward achieving a safe working environment for employees and minimizing the likelihood of occupational related injuries and illnesses. The Program is based on, and complies with applicable Federal, State, and Local safety codes and regulations, including OSHA. Procedures have been established for the control of operating hazards, including but not limited to electrical, chemicals, noise, falls from heights, cut and abrasion injuries, and strain and sprain injuries. On-the-job training of GCRTA employees is emphasized to recognize hazards and to promote occupational safety and health practices.

Attention is given to the need for, and proper use of, personal protective equipment and clothing as required by the work being performed as well as adherence to standard operating procedures, which are posted on the Safety Management System intranet for all employees to reference. Routine comprehensive industrial hygiene surveys and industrial safety inspections are conducted by the Safety Department as well as district management to ensure that health and safety hazards in the workplace are identified and controlled.

Construction Safety Program

Construction Safety is administered in accordance with contract specifications, and applicable Federal (OSHA), State and Local safety requirements. GCRTA Rules and Procedures are included in each construction contract. Compliance with these rules and procedures is required of all contractors performing work on the operating system. Contractors are required to comply with all local, state, and applicable OSHA construction standards for the safety of their own employees as well as to safeguard GCRTA employees, contractors, passengers and the public.

Engineering and Project Management approves the contractor's safety program plan and supporting documentation, with the concurrence of the Safety Department. Particular emphasis is placed on work that may affect GCRTA operations, passengers, facilities, and personnel. All contractors working in the GCRTA rail rights of way, or interfacing with GCRTA Rail Operations are required to attend safety training. This training covers track access, right of way flagging, and operating procedures. Audits of the contractors are conducted to assure compliance with Federal and State Law, and the GCRTA requirements.

Fire Protection

Fire protection testing is coordinated by the Manager of Security-Transit Police. Life safety requirements for the operating districts are coordinated by the Safety Department and Engineering and Project Management. Fire protection testing results and conformance with the life safety requirements are reviewed by the Safety Department. Compliance with fire protection requirements is audited through emergency drills, inspections, incident investigations and periodic testing of fire protection and fire suppression systems. Training activities are monitored for content and accomplishment and the fire insurance carrier also conducts tests of water supplies for fire protection and monitors physical conditions and compliance with related procedures to minimize both the probability and severity of potential fire.

Hazardous Substances Program

GCRTA's objective is to provide the safest product available and minimize the risks associated with hazardous substances. Accordingly, GCRTA has established a comprehensive program for the control of hazardous substances used, including the disposal of waste, in accordance with Ohio EPA and environmental requirements. The GCRTA Hazard Communication Program details the process for purchasing, receiving, and using hazardous substances at GCRTA.

Such information is provided in the Safety Department's Hazard Communication SOP and Safety Data Sheets SOP. The Safety Department approves Safety Data Sheets for all chemicals and other potentially hazardous substances that are being considered for purchase and use.
Follow-up is conducted on the field use of approved products to ensure safe/proper handling methods are utilized. Additionally, all employees who may use hazardous substances receive training and tool box talks on the safe use and disposal of the products. Follow-up is conducted on the field use of approved products to ensure safe/proper handling methods are utilized.

An electronic database of SDSs is maintained on-line for all affected personnel and for compliance to the OSHA Standard. Some hazardous substances require permits on a 3-year cycle by the City of Cleveland. District Facility Maintenance management ensure these permits are kept current.

4.2 SMS Communication Plan

This section summarizes the different methods GCRTA utilizes for a formal SMS communication plan.

4.2.1 Marketing and Media Relations Tasks

The Marketing and Media Relations Section coordinate news releases regarding safety, including accidents and incidents, with the Safety Department. Additional tasks include:

- Coordinating user education programs for regular and special need riders on how to use the transit system and safety features with the Safety Department and Bus and Rail operations staff.
- Establishing standard public notification procedures about temporary service changes, new boarding locations, etc.
- Providing press releases and human-interest stories about positive safety events and incentive program recipients.

4.2.2 Toolbox Talks

Toolbox Talks are safety-driven information sessions that are provided on at least a monthly basis to maintenance, janitorial and other non-Operator positions. The purpose of these sessions is to educate employees on important safety topics, such as PPE requirements, wellness incentives, workplace illnesses, and hazard awareness, among others. District supervisors utilize monthly subjects distributed by the Safety Department as well as their own subjects relevant to the specifics of the work.

4.2.3 Safety Bulletins

Safety Bulletins are short newsletters drafted by the Safety Department that detail safety particulars of immediate concern. Examples of safety bulletins include hazards, product safety recalls, procedures, emergency information and more. Safety bulletins are created on an as-need basis and are distributed internally.

4.2.4 District TV

Each Operating District is equipped with a television in the operator bullpen. These District TVs act as mechanisms for District management to communicate important safety information to their personnel. Oftentimes, the televisions will display safety-related videos, safety bulletins, safety data, or other general news. Statistics on preventable collisions, on-the-job injuries, or TEAM goals are updated on the district televisions on a monthly basis.

4.2.5 Safety Posters

The Safety Department provides safety posters to District management monthly at Executive Safety Committee meetings. These posters provide a visual tool for monthly safety campaigns or topics presented at ESC and are an effective mechanism in communicating safety information to all personnel. District Directors are responsible for displaying the safety posters in an area that all District personnel can access, and for actively advocating the safety campaign throughout the month.

4.2.6 Intranet

The GCRTA Intranet is an internal website that can be accessed by any employee on the GCRTA network or by accessing onerta.riderta.com and providing employee credentials. The Intranet provides employees with valuable information from every department, such as forms, publications, policies, projects, and more. The Safety Department maintains its own page on the Intranet, titled "Safety Management System." The Safety Management System page provides employees with the ability to access all Safety Champions of Safety, GCRTA Safety Policy and Minimum Standards for Safety, Safety Data Sheets, Executive Safety Committee presentations, Standard Operating Procedures, Emergency and Environmental Procedures, Rulebooks and Procedures, and Job Hazard Analyses. The Safety Management System page is continuously updated to reflect new documents, as well as the needs of the organization.

The Safety Department also maintains a second page on the Intranet, titled "Safety Data Sheets." This page links to an external site enabling employees to access Safety Data Sheets to provide them guidance on personal protective equipment, storage and disposal information, hazards associated with the chemical and other required information in a standardized format.

4.2.7 Safety Management System (SMS) Cards

The Safety Department produces SMS cards for all employees as a reminder to keep safety in the forefront and to reinforce the positive safety culture within the organization. The cards provide a quick summary of SMS at GCRTA, safety reporting options, personal safety accountabilities, and proper workplace behavior. Safety conducts an orientation session with all new employees and where these cards are distributed during the session which includes SMS and other common subjects.

4.2.8 Reference Booklets

All publications produced by the Safety Department are circulated to District management. Examples of these publications include the Right of Way Worker Protection Plan, Safety Rules book, and Public Transportation Agency Safety Plan. All reference guides are created with the intent of communicating safety rules and guidelines, such as treatment of injuries, PPE, use of power tools, safety on the right-of-way, among others. District Directors are responsible for providing employees with copies of these books and making them readily available as needed. All publications are also available in electronic format on the GCRTA Intranet under the Safety Management System tab.

4.2.9 Work Assignment Job Safety Briefings

Work Assignment Job Safety Briefings are used to ensure that all employees assigned to perform a specific task understand the hazards associated with the work to be performed. These are critical to conducting work in a safe manner.

These briefings may be conducted in the field or other designated areas prior to commencing any work, regardless if the work is considered routine or if it is considered complicated. Supervisory staff are responsible for conducting these briefings, and employees are responsible for ensuring that the work plans are carried out as described in the briefings. The Safety Department provides the Work Assignment Job Safety Briefing SOP and the form on the Intranet.

4.2.10 Safety Awareness

All employees are responsible for system security through general awareness and accountability. Employees are encouraged to report all suspicious activities at passenger and operations facilities, and to be cognizant of individuals trailing them into restricted areas. Terrorist Awareness Recognition and Reaction Training and Active Shooter Training are part of the general safety training provided to all employees.

4.2.11 Champions of Safety

Champions of Safety are a fundamental part of safety promotion and safety culture at GCRTA. Recognizing safe practices among employees encourages the same type of behavior in the future, while simultaneously rewarding performance in the workplace. The program is designed to recognize an employee for working safely. To be eligible for the award, a supervisor must witness an employee partaking in one of the following activities that is above and beyond their normal scope of work. The following are examples of such:

- Identifying a safety issue or hazard.
- Assisting in the resolution or mitigation of a safety hazard.
- Assisting in incident investigations that are not part of their everyday activities.
- Participating in the overall safety effort to reduce collisions, incidents, and injuries.

The Champions of Safety process is as follows:

- The members of the Executive Safety Committee, the District Safety Committees, and all supervisors may submit names of employees to the Safety Department who have shown notable safety efforts, using the Employee Recognition page / Champion of Safety section on the GCRTA Intranet.
- The Executive Safety Committee will review all nominations and will make the final determination of the award winners by taking a vote.
- The award winners will attend the next month's Executive Safety Committee or attend a forum at their facility to receive their award and be recognized for their efforts.

The Champions of Safety are then acknowledged in the GCRTA Safety Recognition Calendar, which is published annually and distributed Authority-wide, as well as being uploaded to the GCRTA Intranet and displayed on District TVs monthly. This serves as an additional act of recognition and appreciation that reaches beyond the Executive Safety Committee attendees.

4.2.12 Safety Performance Awards

Two of the safety performance targets are analyzed on a quarterly basis to determine the District winners for the following trophies:

- Lowest preventable collision rate.
- Most improved preventable collision rate.
- Lowest injury rate.
- Most improved injury rate.

Winners of these Safety Performance Awards receive trophies and are recognized at the Executive Safety Committee Meeting.

4.2.13 Bus Roadeo & Rail Rodeo

The Bus, Paratransit, and Rail Districts participate in APTA Bus & Rail Rodeos or hosts their own providing Operators a friendly competitive environment to measure and test their knowledge of safety rules, operating rules, equipment and procedures. Other events at GCRTA hosted rodeos may include outreach such as Transit Police Operation Community Watch, Rail or Bus Equipment Maintainer competitions to evaluate troubleshooting and defect repair skills, Power & Way skills challenges, & Touch a Train familiarization for employees and families.

4.2.14 Employee Awards Event

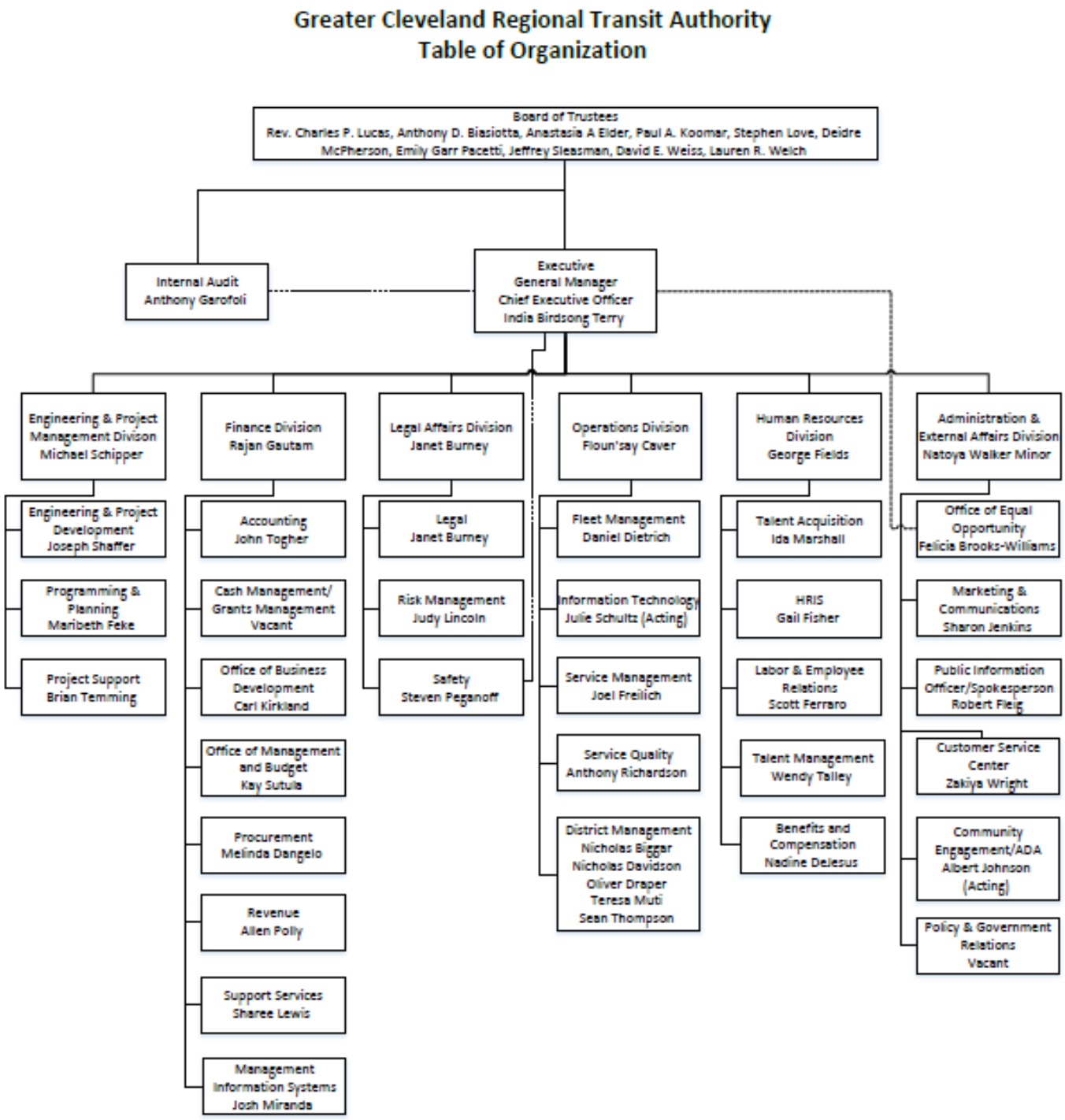
GCRTA may hold an annual awards event to recognize outstanding performance by employees. Award categories are at the discretion of the General Manager and CEO or their designee will include but not be limited to safety, driving without a preventable accident for a specified number of years (Operators), heroism (Transit Police), and customer service, as well as other categories. The event may also highlight appreciation for employees who provide unique solutions to transit challenges and for exceptional community partner(s).

APPENDIX A: LIST OF ACRONYMS

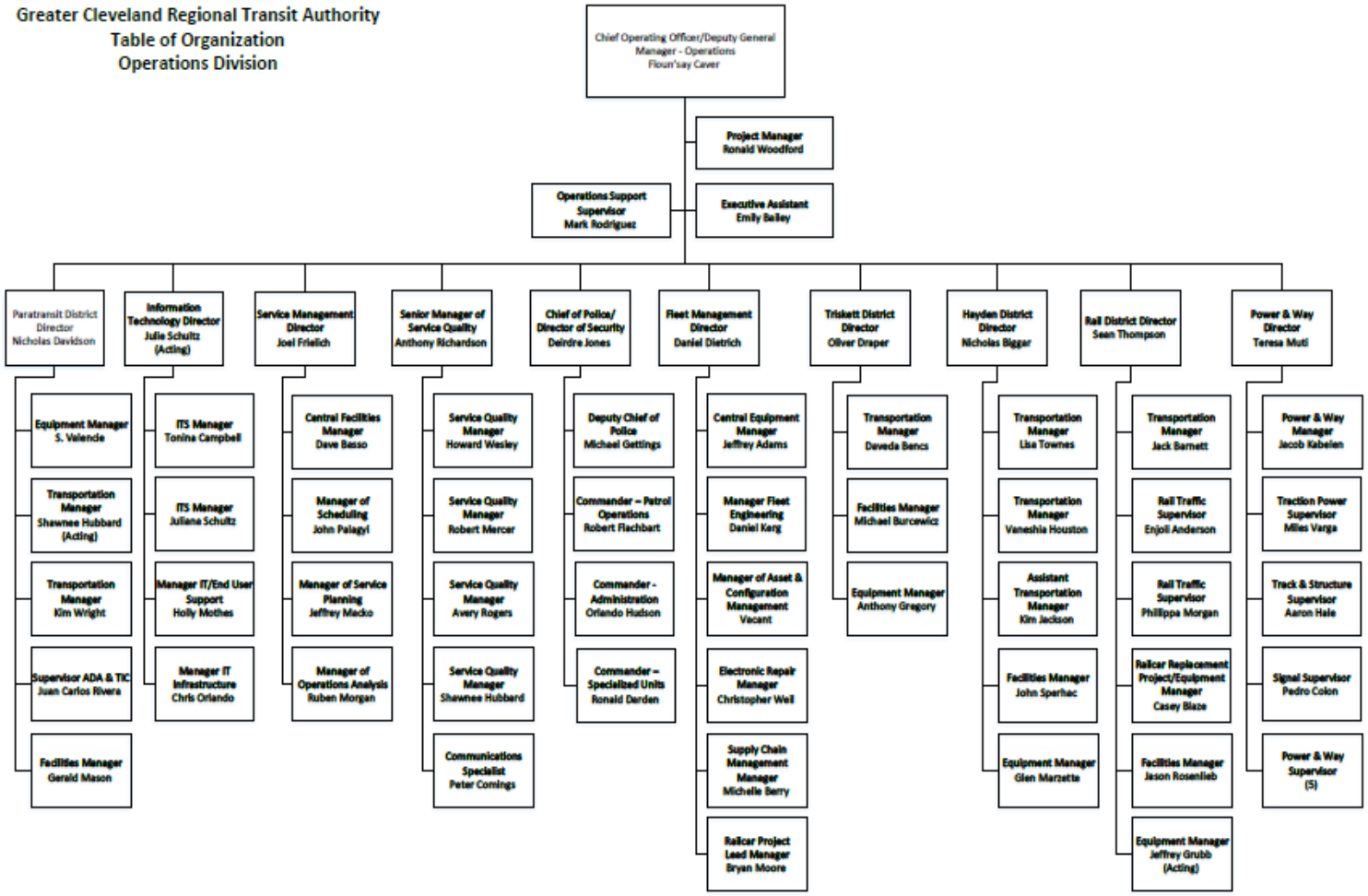
ABS	Automatic Block Signal
ADA	Americans with Disabilities Act
AP-002	Administrative Procedure – Revenue Accident Investigation
AP-016	Administrative Procedure – Safety Review Policy and Procedures
APTA	American Public Transportation Association
ATS	Automatic Train Stop
CAP	Corrective Action Plan
CFR	Code of Federal Regulations
CM	Corrective Maintenance
CNG	Compressed Natural Gas
CTDS	Consolidated Train Dispatching System
EAP	Employee Assistance Program
ECP	Engineering Change Proposals
EMT	Executive Management Team
EOP	Emergency Operations Plan
ESC	Executive Safety Committee
ESMS	Environmental Sustainability & Management System
FMLA	Family and Medical Leave Act
FTA	Federal Transit Administration
GCRTA	Greater Cleveland Regional Transit Authority
HRV	Heavy Rail Vehicle
ICC	Integrated Communications Center
ICS	Incident Command System
ISO	International Organization for Standardization
ITS	Intelligent Transportation Systems
JHA	Job Hazard Analysis

LRV	Light Rail Vehicle
MPO	Metropolitan Planning Organization
NFPA	National Fire Protection Association
NOACA	Northeast Ohio Areawide Coordinating Agency
NTD	National Transit Database
NTSB	National Transportation Safety Board
OCS	Overhead Catenary System
ODOT	Ohio Department of Transportation
OEM	Original Equipment Manufacturer
OSHA	Occupational Safety and Health Administration
PTASP	Public Transportation Agency Safety Plan
QMM	Quarterly Management Meeting
RORB	Rail Operations Rule Book
ROWWPP	Right of Way Worker Protection Plan
RTS	Rapid Transit Station
SCADA	Supervisory Control and Data Acquisition
SDS	Safety Data Sheets
SMART	Specific, Measurable, Achievable, Realistic, Time-Bound
SMS	Safety Management System
SOP	Standard Operating Procedure
SSCP	Safety and Security Certification Plan
SSO	State Safety Oversight
STOP®	Safety Training Observation Program
TEAM	Together Everyone Achieves More
TIP	Transportation Improvement Program
USDOT	United States Department of Transportation
VESDA	Very Early Smoke Detection Apparatus

APPENDIX B: ORGANIZATIONAL CHARTS



Greater Cleveland Regional Transit Authority
Table of Organization
Operations Division



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