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8. OPERATION

8.1 Operational Planning and Control

The LRTA commits to plan, implement, and control the processes necessary to meet the requirements of both the ISO 9001 and ISO 45001 to ensure that operational activities conform to standards of quality, efficiency, and safety, while minimizing risks to personnel and operations.

The Authority ensures that:

- Processes are planned and implemented to meet both customer and regulatory requirements;
- Risks to quality, health, safety, and the environment are identified, assessed, and mitigated;
- Controls are established over outsourced processes, with clearly defined criteria for both the organization and suppliers; and
- Compliance with applicable standards, legal requirements, and the organization's policies is ensured through monitoring and evaluation

8.1.1 General Requirements

The LRTA ensures that processes are carried out under controlled conditions to meet quality and OH&S objectives. This includes:

- Maintaining documented information to support operations
- Establishing and monitoring process criteria to ensure that outputs meet planned requirements;
- Controlling changes that may impact quality or OH&S performance;
- Reviewing customer and regulatory feedback to continuously improve services; and
- Ensuring that all hazards are identified and risks are controlled in alignment with ISO 45001.

8.1.2 Eliminating Hazards and Reducing OH&S Risks

As part of the OHSMS, the LRTA is committed to eliminating hazards and reducing risks to health and safety. This is achieved through:



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- Implementing proactive measures, such as hazard identification and risk assessments (HIRAC);
- Developing controls to prevent injuries, illnesses, and incidents
- Applying the following hierarchy of controls to mitigate identified risks:
 - 1. Elimination Physically removing the hazard to eliminate the risk.
 - 2. Substitution Replacing hazardous processes, operations, materials, or equipment with safer alternatives.
 - 3. Engineering Controls Introducing physical measures such as barriers, ventilation, isolation, or process modifications to reduce exposure to hazards.
 - 4. Administrative Controls Changing work practices and behaviors through policies, procedures, training, signage, and other awareness measures.
 - Personal Protective Equipment (PPE) Providing specialized clothing and equipment to protect employees from residual risks.
- Ensuring worker involvement in hazard identification and risk reduction processes.

The LRTA, through its Safety and Security Division (SSD) and Safety & Health Committee, has implemented measures to eliminate hazards and reduce occupational health and safety (OH&S) risks, particularly in critical areas such as the workshop, pit, stabling yard, viaduct, mainline manholes, station premises and confined spaces. The use of personal protective equipment (PPE) is mandatory in these areas, and all safety requirements are communicated during safety orientations and inductions for both newly-hired employees and third-party workers, including janitorial services, security personnel, maintenance providers, and contractors.

a. Zero-Accident Goal through Proactive Safety Measures

A core responsibility of the SSD is to achieve a zero-accident workplace. This objective is supported by various safety plans, programs, and initiatives, including regular safety inspections focused on worker behavior and identifying unsafe conditions. These inspections aim to detect hazards before incidents occur. The IMS structure also provides additional support, through its 7S Team, which assists the SSD in maintaining compliance with OH&S standards.

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b. Risk Assessment Process

The LRTA has established a comprehensive risk assessment process. This process evaluates potential impacts on the quality and safety of products and services before procurement. The Risk Management Team ensures that all process owners conduct and submit risk assessments when planning activities that could affect workers and their tasks. Once assessments are completed, the results are communicated to the affected workers to facilitate the development of appropriate control measures. Pre-activity safety meetings or inductions are held to ensure workers, including external contractors, are aware of hazards and safety requirements.

c. Involvement of Third Parties in Risk Management

The LRTA's risk management process includes external parties, particularly during the procurement of services and installation of machinery. Risk assessments identify potential hazards and define appropriate control measures to protect both LRTA workers and contractors, ensuring compliance with OH&S standards.

d. Compliance with Government Regulations

The LRTA adheres to RA 11058 Än act "An Act Strengthening Compliance with Occupational Safety and Health Standards and Providing Penalties for Violations thereof" and the Joint Memorandum Circular JMC 01, issued on March 4, 2020 by the Civil Service Commission (CSC) and the Bureau of Working Conditions (BWC) under the Department of Labor and Employment (DOLE). The RA and the circular outline the guidelines on occupational safety and health standards for public sector workers, which LRTA fully complies with through regular updates to its safety policies, annual training programs, and continuous improvement initiatives.

8.1.3 Management of Change

Changes in LRT operations, technologies, or organizational structures shall be managed to ensure they do not introduce new hazards or negatively affect OH&S performance. A structured change management process is in place to:

- Identify potential hazards or risks introduced by the change;
- Conduct risk assessments and implement controls to mitigate potential impacts;

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- Communicate changes to all relevant stakeholders, including workers, contractors, and regulatory authorities; and
- Ensure that changes comply with legal and other requirements related to OH&S.

The LRTA recognizes the critical importance of managing change in maintaining a safe and healthy work environment within the scope of its IMS.

To address this, LRTA has established an Incident Committee that works closely with the SSD to investigate accidents, incidents, and near misses. This Committee's mandate is to identify root causes and implement corrective actions, including the introduction of control measures to prevent recurrence. Changes resulting from these investigations may involve modifications to supervision, worker responsibilities, or the introduction of new materials, equipment, or processes.

a. Documentation and Guidance for Managing Change

LRTA has developed comprehensive written policies, safety guidance, notices, and Procedures and Work Instructions Manuals (PAWIM). These documents are designed to account for various scenarios based on risk assessments and identified opportunities. As changes are introduced, these materials are regularly updated to reflect current safety practices, ensuring that all workers and third-party contractors are adequately informed and trained.

b. Coordination with Contractors and Third Parties

To ensure the safety of all personnel, the SSD, in collaboration with the Engineering Department, requires kick-off meetings with third-party contractors for any project within the depot or along the revenue line. During these meetings, the safety provisions outlined in the terms of reference are reviewed in detail, and LRTA's safety requirements are thoroughly communicated to contractors.

c. Orientation and Induction for New Workers and Providers

In cases where there is a change in maintenance providers or the introduction of new workers, LRTA ensures that all personnel undergo a comprehensive orientation and safety induction. This process ensures that

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new workers are fully aware of the relevant safety requirements and can integrate seamlessly into the existing safety framework.

d. Assessing and Preventing New Hazards

The LRTA incorporates a systematic approach to assess and prevent the introduction of new hazards during changes to operations, equipment, or processes. This includes conducting hazard identification and risk assessment and control (HIRAC) for new materials, equipment, or procedures.

8.1.4 Procurement

The procurement of products, services, and contractors that impact the LRT system's operations is controlled to ensure that quality and OH&S standards are met in accordance to relevant laws. The Authority ensures that:

- External providers comply with LRT's OH&S and quality requirements;
- Risk assessments are conducted on products, equipment, and services procured to ensure they meet OH&S criteria;
- Contractors and suppliers adhere to OH&S requirements, including safe working conditions and the use of appropriate safety controls; and
- Ongoing performance monitoring is conducted for external providers to ensure compliance with OH&S standards.

LRTA's SSD collaborates with the Bids and Awards Committee (BAC), Procurement Division and Engineering Department to manage the acquisition of PPE and other critical items ensuring that procured items meet safety and quality standards.

Inspection and Compliance with Standards

All procured items undergo inspection by competent personnel from both Safety and Engineering teams to ensure compliance with OSH standards and product specifications.

• Testing and Validation

LRTA ensures compliance by sending selected safety items to accredited Occupational Health and Safety testing centers, verifying that they meet the required standards..

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Delivery Inspections and Acceptance

The Delivery Inspections and Acceptance Report (DIAR) process ensures that all delivered products are verified against predefined safety and quality specifications prior to acceptance.

8.1.5 Outsourcing and Supplier Control

The control of outsourced processes and supplier relationships is crucial for maintaining operational and safety standards. The LRTA ensures that outsourced services meet all applicable requirements by:

- Communicating clear quality and safety requirements to external providers
- Conducting periodic audits and evaluations to ensure compliance
- Establishing performance criteria and requiring corrective actions when deviations from standards are identified
- Engaging in risk-based thinking to evaluate the potential impacts of outsourcing on operations and safety

LRTA's contractor management process ensures that all external service providers comply with both OSH standards and railway industry best practices, following the requirements of ISO 45001 and ISO 9001:

Safety and Quality Protocols in Contracts

Safety protocols and OSH standards are embedded in the terms of reference (TOR) for all bidders, ensuring that contractors understand the safety and quality requirements from the outset.

Kick-off Meetings and Safety Inductions

Kick-off meetings are organized for all projects, involving safety personnel and end-user representatives. Safety inductions are mandatory for all contractor workers to ensure compliance with OSH standards and ISO 9001.

Toolbox Meetings

Toolbox meetings are held regularly before the start of activities, ensuring that both safety risks and quality issues are addressed and reviewed.

Risk Assessments and Compliance Checks

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LRTA requires contractors to submit risk assessments and method statements prior to the commencement of any work. These are reviewed by LRTA's Safety and Engineering teams, ensuring adherence to safety and legal requirements.

Permit to Work

The Permit to Work or Work Clearance used for all contractor activities, specifying all safety, operational, and engineering requirements. This system helps to ensure that all contractors are aware of the applicable safety and quality rules and are in compliance with both ISO 45001 and ISO 9001

8.2 Requirements for Products and Services, and Emergency Preparedness and Response

8.2.1 Requirements for Products and Services

When determining the requirements for products and services, LRTA ensures that all customer needs and expectations are clearly identified and defined, including any statutory and regulatory requirements, as well as those essential for meeting the organization's objectives. LRTA is committed to ensuring that it can meet the claims and promises associated with the products and services it offers.

The following information is gathered and analyzed to determine requirements:

a. Customer and Stakeholder Inputs

- Passenger Transactions: LRTA collects information directly from passengers regarding their ticket purchases, including the type of ticket (single journey or stored value) and destination. This data helps define the product offering and ticketing services, ensuring they align with customer needs.
- Discounted Tickets: LRTA offers discounted tickets to eligible passengers, such as Senior Citizens, Persons with Disabilities (PWD), and students. A 20% discount is applied upon the presentation of valid identification cards at designated windows. This requirement is in line with statutory regulations governing fare discounts for these sectors,

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ensuring LRTA complies with legal mandates while meeting customer expectations.

b. Feedback Collection and Analysis

- Customer Feedback: LRTA actively monitors customer feedback through various channels such as suggestion boxes, social media platforms (Twitter, Facebook), email, and text messages. The Public Relations Division (PRD) is responsible for reviewing these inputs, analyzing trends, and forwarding them to relevant departments for corrective actions or service improvements. This continuous feedback loop ensures that customer needs are regularly assessed and integrated into service delivery enhancements.
- Passenger Complaints: Complaints and suggestions are treated as key indicators of service performance. These inputs are crucial in identifying service gaps, enhancing product offerings, and maintaining compliance with customer expectations. Actions are taken promptly to address these concerns, ensuring customer satisfaction.

c. Compliance with Legal and Regulatory Requirements

- Statutory and Regulatory Compliance: LRTA ensures that the requirements for services, such as fare discounts, are consistent with relevant laws and regulations, including senior citizen and PWD discounts. Compliance is verified through regular review of applicable laws, regulatory publications, and participation in public consultations. These reviews are then integrated into LRTA policies to ensure that the organization remains compliant and responsive to evolving legal requirements.
- Management Committee (ManCom) Meetings: Any new or amended laws that impact LRT operations, services, or customer interactions are discussed in ManCom meetings and translated into internal LRTA policies to ensure compliance and operational alignment.
- Compliance Committee: The Compliance Committee ensures the timely and proper adherence of the Light Rail Transit Authority (LRTA) to all non-regulatory, licensing, and reportorial requirements from various government agencies, such as but not limited to the

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Government Commission on GOCC's (GCG), the Commission on Audit (COA), Civil Service Commission (CSC), the Department of Finance (DOF), the Department of Budget and Management (DBM), the Department of Environment and Natural Resources (DENR), the Department of Transportation (DOTr), the Anti-Red Tape Authority (ARTA), and the Department of Information and Communications Technology (DICT).

d. Public Consultation and Engagement

LRTA regularly participates in public consultations, allowing passengers, stakeholders, and other interested parties to voice their opinions and concerns. These inputs are submitted to the LRTA Board and distributed to relevant offices for review and action. This participatory process ensures that LRTA remains accountable to the public while continuously refining its products and services to meet the needs of the commuting public.

e. Promoting Quality Standards by Fostering Stakeholder Involvement

LRTA takes all necessary steps to ensure that the products and services it offers to customers meet both internal and external requirements. This involves ongoing verification that LRTA can deliver the quality, safety, and reliability associated with its services, particularly in the areas of ticketing, passenger services, and overall safety management.

Operational activities are reviewed to ensure compliance with legal, regulatory, and customer expectations. Feedback from customers and stakeholders is used to continuously improve processes and services. These reviews ensure alignment with the integrated management system, supporting the system's effectiveness in meeting both quality and OH&S goals.

8.2.2 Emergency Preparedness and Response

The Light Rail Transit Authority (LRTA) has established an Emergency Preparedness and Response System, specifically designed to address potential hazards and emergencies that may arise during the operation and maintenance of the LRT 2 System, including both the depot and stations.

a. Risk Reduction and Disaster Management Group (RRDMG)

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LRTA has an active RRDMG that is immediately deployed in the event of emergencies, such as:

- Major injuries due to workplace accidents;
- Disasters and force majeure incidents like fires, earthquakes, floods; and
- Train derailments, collisions, and other operational crises at the revenue line or depot.

The Safety and Security Division (SSD), together with the Incident Committee, ensures that the emergency procedures are documented, accessible, and regularly reviewed. Emergency drills and simulations are conducted periodically to test the effectiveness of response measures, identify potential gaps, and ensure that all personnel, including external contractors, are familiar with the procedures.

b. 24/7 Medical Services

LRTA has on-site medical services available 24/7 to handle emergency situations, including injuries sustained by employees during work at both the depot and revenue line, as well as to provide medical assistance to passengers experiencing health issues while inside the stations or trains.

c. Collaboration with External Emergency Services

To strengthen its emergency response capacity, LRTA has fostered strong partnerships with Local Government Units (LGUs) and their respective emergency response teams. The Safety and Health Committee, and the Incident Committee, operating under the authority of the Administrator, spearhead the development of Memoranda of Understanding (MOUs) with these external agencies. These agreements outline coordinated efforts to provide a swift and efficient response during disasters or emergencies, ensuring that LRTA can draw on additional resources and expertise when needed.

LRTA's emergency preparedness and response plans undergo regular review and testing. Feedback from drills, real incidents, and audits are used to update emergency plans, improve training programs, and enhance collaboration between LRTA's internal teams and external emergency services. The organization ensures that emergency roles and responsibilities are clearly defined, with specific attention to:

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- Communication protocols during emergencies;
- Coordination with local authorities and relevant stakeholders;
- Procedures for evacuating passengers, managing injured personnel, and mitigating operational impacts during emergencies.

8.3 Design and Development of Products and Services

The Design and Development of Products and Services is excluded from LRTA's IMS as it is not applicable to the organization's scope of operations.

8.4 Control of Externally Provided Processes, Products, and Services

External providers play a key role in LRT 2 operations. The LRTA establishes strict controls to ensure the services and products procured from external providers meet the guality and OH&S requirements of the system.

8.4.1 Evaluation of Suppliers and Contractors

The organization ensures that suppliers and contractors meet all requirements for operational quality and safety. Risk assessments and performance evaluations are conducted regularly, with corrective actions applied where necessary to ensure compliance.

8.5 Production and Service Provision

The services provided by LRT 2 are carefully managed, monitored, and controlled to ensure they meet the highest standards of quality, safety, and regulatory compliance. Real-time monitoring systems, preventive maintenance, and operational controls are coordinated to deliver efficient and safe services.

8.5.1 Control of Equipment

The equipment used in LRT 2 operations is maintained and monitored according to industry best practices, regulatory requirements, and safety standards. Maintenance schedules, inspections, and controls are implemented to ensure the continued operational performance and safety of equipment. These efforts support LRTA in maintaining a reliable, safe, and efficient Light Rail Transit system.



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LRTA ensures that the provision of train services and related operations is conducted under controlled conditions, which includes:

- Defined work instructions,
- Properly maintained equipment,
- Qualified personnel,
- Monitoring of operational performance, and
- Validated processes and methodologies.

a. Access and Removal of Trains from Revenue Service

The Traffic Control Division (TCD) adheres to standardized procedures for accessing and removing trains from the revenue line. Train drivers perform pre-service inspections to ensure the operational readiness of trains, including safety and functionality. Any train that fails inspection is immediately grounded, and a replacement is inspected to ensure it meets operational requirements.

b. Monitoring and Support During Train Operations

The Train Operations Dispatcher Supervisor/Line Dispatcher provides realtime operational support, including:

- Monitoring train arrivals and departures
- Assisting with manual procedures during signaling system failures
- Adjusting Train Operator's (TO) schedules by adopting the gradual changing of indexes method to cope up with the service delays after a service revenue interruption

The Operations Control Center (OCC) uses the Dimetronic Time Table Processor and other supporting systems, including Westrace Signaling Equipment, to ensure proper train scheduling and safe movement of trains throughout the LRT 2 system.

c. Telecommunication and Monitoring Systems

To support safe and efficient operations, LRTA employs several communication and monitoring systems, including:

Closed Circuit Television (CCTV) for monitoring system activities

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• Telecommunication systems (telephones and radios) for operational coordination

Operational data and interactions are recorded through forms, logbooks, and playback equipment for continuous monitoring and improvement.

d. Passenger Information and Assistance

The Station Operations Division (SOD) ensures that passengers have access to important information, such as:

- Fare Matrix
- Citizen's Charter
- System Maps and Locality Maps
- Information on ticket purchasing procedures and station exits

In case of Automated Fare Collection System (AFCS) malfunctions, established procedures ensure continued access to services. The Station Computer System (SCS) is used to monitor and control these systems.

e. Equipment Monitoring and Incident Reporting

Station personnel monitor the functionality of equipment and promptly report any malfunctions to the Operations Control Center (OCC). In the event of an unexpected incident, supervisors take appropriate action and report to the OCC to ensure a swift and coordinated response.

8.5.1.1 Validation of Processes for Service Provision

LRTA validates key work processes periodically to ensure their effectiveness in delivering quality and safety outcomes. This validation covers the qualification of processes, equipment, personnel, and maintenance activities. The following steps are involved in the validation of service provision processes:

- 1. Qualification of Processes
 - Operational processes are regularly reviewed, assessed and updated for their ability to meet safety, reliability, and service objectives.

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• Adherence to established procedures and industry best practices ensures that processes remain compliant with regulatory standards.

2. Qualification of Equipment, Personnel, and Maintenance

- Equipment Validation: Equipment is subject to scheduled maintenance activities, inspections, and repairs to ensure it is fit for purpose. Maintenance logs are kept to document all actions taken to maintain or repair equipment.
- Personnel Validation: Frontline Personnel undergo competency assessments, regular training, and performance reviews to ensure they have the required skills and knowledge.
- Maintenance Validation: LRTA verifies the effectiveness of its maintenance programs through regular checks, ensuring that all assets remain operational and compliant with safety standards. Preventive and corrective maintenance activities are validated for their effectiveness in minimizing equipment failure.
- 3. Defined Methodology
 - All validation activities, including maintenance activities, are conducted following LRTA's defined methodologies, ensuring adherence to best practices.
- 4. Record Maintenance
 - Comprehensive records of validation activities, including maintenance logs and personnel competency assessments, are maintained for traceability and continuous improvement.
- 5. Re-validation
 - Regular re-validation ensures processes, equipment, and personnel (including maintenance staff) remain aligned with operational and safety standards.
- 6. Daily Attendance and Overtime Monitoring Form (DAOM)
 - Tracking the manpower requirements per the time table that is being used vs actual attendance.
- 7. Daily Observation Report (DOR)

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• A document that where outstanding faults or new faults are recorded. This is to ensure that the train driver is aware of the train operational condition or status.

8. Loop Monitoring Form

- For tracking/monitoring the actual arrival of trains at end stations with regard to the time table.
- 9. Observation Reports (Train Drivers)
 - Covers the actual driving habit, attitude or performance of the train drivers inside the train cabin and all unsafe conditions, unusual occurrences or observation at the viaduct and inside the train,

A. Train Operations Division (TOD) Validation

The Train Operations Division ensures effective train management through the validation of the train schedule and timetable, with maintenance aspects integrated. Validation tools include:

- Loop Monitoring Forms: For tracking daily train performance and identifying maintenance needs.
- Observation Reports: From scheduled and unscheduled inspections, including maintenance observations.
- Line Inspections: To assess train and track conditions and to identify maintenance requirements.

Personnel and Maintenance Validation

The competency of Train Drivers is validated through:

- Knowledge of rolling stock operations, emergency protocols, and traffic procedures.
- Maintenance Feedback: Drivers provide feedback on equipment condition, which is used to improve the maintenance program.
- Performance is validated using:
 - Train Simulator with 16 case scenarios related to rolling stock operations, including scenarios for maintenance feedback.

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B. Station Operations, Ticketing, and Maintenance Validation

The Automated Fare Collection System (AFCS) includes several components essential for operations and subject to validation. Maintenance aspects are incorporated as follows:

- Point of Sale (POS), Ticket Vending Machines (TVM), and Automatic Gates (AG): Regularly inspected and maintained to ensure operational readiness.
- Station Computer (SC): Monitored for maintenance needs and equipment performance.

Personnel and Maintenance Validation

- Station Tellers and Supervisors undergo training such as Customer Relations and Safety-related training, including the use of maintenance reports to ensure equipment such as POS and TVM remain functional.
- Maintenance Logs: The AFCS concessionaire is responsible for maintaining logs of all AFCS equipment, ensuring that preventive and corrective actions are documented.
- Validation of station personnel effectiveness includes:
 - Spot Audits for equipment performance and maintenance scheduling.
 - Performance Evaluations through the Individual Performance Commitment Review (IPCR), checking of records in local 201 files, and number of validated passenger complaints.
- C. Traffic Control Division (TCD), Operations Control Center (OCC), and Maintenance Validation

The Traffic Control Division (TCD), through the Operations Control Center (OCC), oversees the integration of operations, maintenance, and technical disciplines. This ensures the efficient

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and reliable provision of services, with a strong focus on maintaining the infrastructure.

Personnel and Maintenance Validation

- Fleet Console Management: Requires personnel with train driving experience who can provide real-time feedback on rolling stock maintenance needs.
- Stations Console Management: Station-related concerns are validated through regular maintenance checks of AFCS and other station systems.
- Systems Console Management: Requires Electrical engineers or personnel with equivalent competence ensure the power supply and other critical systems are maintained in good condition through scheduled maintenance activities.

The OCC uses tools like the Service Interruption Report (SIR), Incident Report (IR), and Early Monitoring Report (EMR) to track operational ssues.

8.5.2 Identification and Traceability

The LRTA ensures the identification and traceability of outputs throughout the production and service provision processes to maintain the conformity of products and services. This includes proper labeling, monitoring, and measurement to meet operational and safety standards, as well as customer expectations.

The Authority utilizes suitable means to identify outputs at various stages of the transit operations, ensuring that the status of each output is clearly defined and traceable. Documented information is retained to enable the traceability of all operational elements, ensuring seamless identification of both products and services.

a. Identification and Traceability Measures

1. Train Number Indicator (TNI): Each train is identified by a unique number through indices displayed on the Train Number Indicator (TNI) before being inserted into the revenue line.

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- 2. Train Sets: Trains are composed of four-car train sets, and these compositions are uniquely identified for operational tracking.
- 3. Stations: Stations are identified by their names and assigned sequential numbers along the LRT 2 system from Recto (01) to Antipolo (13), ensuring easy identification and reference.
- 4. Train Drivers: Train Drivers are identified by their names, ensuring accountability and traceability throughout the service period.
- 5. Trip Identification: A trip refers to a single direction journey (half-loop), while a loop refers to two trips including a turn-back. Both are logged for tracking train service patterns.
- 6. Headway: Headway refers to the interval between two consecutive trains, which is carefully monitored and recorded for maintaining service schedules.
- 7. Dwell Time: The time allowed for passengers to alight and board at each station platform is referred to as dwell time and is recorded to ensure adherence to the operational timetable.
- 8. Track Identification: The tracks, consisting of parallel rails for the train's runway, are continuously monitored and maintained for safety and performance.
- Track Circuit: The track circuit is an electrical system that provides vital data for the Automatic Train Protection (ATP) system, including speed limits and track conditions ahead. This information is critical for realtime train control and operational safety.
- 10. Ticket Identification: Tickets serve as proof of payment and provide passengers access to the train system via the Automatic Fare Collection System (AFCS) gates at each station. Tickets are traceable based on the transaction and passenger details.
- 11. AFCS Equipment Identification: Each piece of AFCS equipment is uniquely numbered, including:
 - o Automatic Gates (1-50),

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- o Ticket Vending Machines (71-86),
- Analyzer Dispensers (91-94), ensuring traceability of fare collection and ticketing processes.
- 12. Station Tellers: Station tellers are identified by their nameplates and identification cards, ensuring that their roles and actions during the ticketing process are traceable.

8.5.3 Property Belonging to Customers or External Providers

The LRTA exercises due care and diligence when handling property belonging to customers or external providers, ensuring that it is properly managed while under LRTA's control or being utilized for light rail operations and maintenance activities.

LRTA shall take steps to identify, verify, protect, and safeguard customer or external provider property intended for use in its operations or incorporated into the services provided. This includes any equipment, materials, or other resources required for maintenance, repairs, or operational support.

In the event that any property from a customer or external provider is lost, damaged, or deemed unsuitable for use, LRTA shall promptly notify the customer or provider. A report shall be documented, detailing the nature of the issue, its cause, and any remedial actions taken, thus ensuring transparency and traceability of the incident.

8.5.4 Preservation

To ensure conformity to operational and safety requirements, LRTA shall implement measures to preserve the outputs during production and service provision. This includes:

- a. Protecting trains, stations, and equipment from deterioration during maintenance or operations.
- b. Ensuring the proper handling, storage, and transportation of materials, particularly critical assets such as signaling systems, train components, and safety equipment.
- c. Preserving the quality of operational records, logbooks, and maintenance documentation to maintain compliance with industry regulations and operational standards.

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These preservation measures help maintain the integrity and performance of the LRT system, ensuring that trains, stations, and support facilities remain functional and safe for both employees and passengers.

8.5.5 Post-Delivery Activities

LRTA shall meet all requirements for post-delivery activities related to its light rail transit operations and services. These activities include night maintenance, customer support, and monitoring of equipment performance after the delivery or implementation of services.

The extent of post-delivery activities is determined based on the following considerations:

- a. Statutory and regulatory requirements: Compliance with applicable laws and standards governing public transportation and rail operations.
- b. Potential undesired consequences: Identification of risks related to operational failures, safety hazards, or service interruptions.
- c. Nature, use, and intended lifetime: Maintenance schedules, repairs, and upgrades aligned with the projected operational lifecycle of trains, stations, and equipment.
- d. Customer requirements: Addressing passenger feedback, including safety concerns, service quality, and response to incidents.
- e. Customer feedback: Utilizing complaints and suggestions to improve future services, such as revising train schedules, improving station facilities, or enhancing safety measures.

8.5.6 Control of Changes

LRTA shall maintain strict control over changes that affect the production and service provision processes. This includes any modifications related to train operations, maintenance activities, station infrastructure, or support services.

Before any change is implemented, LRTA shall conduct a review to assess its potential impact on safety, operational efficiency, and service delivery. The review shall consider:

a. Risk analysis: Evaluating any new hazards or issues that may arise due to the change.

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- b. Regulatory compliance: Ensuring the change complies with applicable safety and operational standards.
- c. Operational impact: Assessing the effect of changes on train schedules, passenger flow, and station operations.

LRTA shall document the outcome of the review, including details of the change authorization, and ensure any necessary actions are taken to maintain operational conformity. All changes are monitored to ensure that safety and service quality standards are upheld throughout the implementation process.

8.6 Release of Products and Services

LRTA shall implement planned arrangements, at appropriate stages, to verify that both product and service requirements have been met, ensuring conformity to all relevant statutory, regulatory, and customer requirements.

Before the release of any products or services to the customer, or the commencement of work activities, LRTA shall ensure that all required safety protocols are in place. This includes hazard identification, risk control measures, and emergency preparedness to safeguard employees, passengers, and other stakeholders.

No product, service, or work activity shall proceed until all planned verification arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority, and, where applicable, by the customer. LRTA shall ensure that before release, there are no safety hazards for the workforce or nonconformities related to product and service requirements.

8.7 Control of Nonconforming Outputs

8.7.1 Nonconformities

LRTA shall ensure that outputs that do not conform to their specified requirements are identified and controlled to prevent their unintended use or delivery. This applies to nonconformities in products, services, and any unsafe conditions detected before or after delivery, during, or after the provision of services or activities.

Actions shall be taken based on the nature of the nonconformity and the risks it presents, including correction, segregation, containment, return, suspension of provision, or the implementation of additional safety measures as required.

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LRTA shall also inform customers and obtain authorization for acceptance under concession, ensuring conformity with both quality and safety standards.

Nonconformities related to occupational health and safety risks shall be addressed through risk reduction measures, hazard control, or by halting unsafe operations. Safety concerns, like nonconforming products or unsafe conditions, shall be corrected immediately before resuming operations.

The effectiveness of corrections or controls shall be verified before any further use of the outputs.

8.7.2 Documentation of Nonconformities

LRTA shall maintain documented information that describes the nonconformity, actions taken to resolve it, any concessions obtained, and identifies the authorities responsible for handling the nonconformity.

This documentation shall be regularly reviewed to ensure continuous improvement in both quality management and occupational health and safety management systems.

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