1.0 Purpose:

The purpose of this procedure is to ensure processes are in place for the active implementation of maintenance plan of systems and equipment within the Nassau Cruise Port Limited (NCPL) facilities.

2.0 Responsibility:

The Projects and Facilities Manager is responsible for ensuring that the following procedures are effectively implemented and maintained.

3.0 Procedures:

3.1 Implementation of the Plan

3.1.1 Maintenance Standards / Regulations

The department led by the Director of Projects and Facilities will maintain the culture of excellence all the time and provide the necessary training/courses to achieve the high standards required. The essential components to achieve these standards are described below and are periodic inspections, identification, prioritization, and implementation of jobs followed by assignment, scheduling, and completion of tasks.

It is expected that all employees of the terminal will be involved in the identification, reporting and/or correction of the identified deficient conditions.

3.1.2 Monitoring and Inspection

The facilities will be monitored and inspected regularly as stipulated in previous sections and as reflected in the following table:

MAINTENANCE PLAN									Date:
NASSAU CRUISE PORT		Action Required							Feedback
		Daily	Weekly	Monthly	Every 6 months	Annual	As required	Emergency	
Arrivals Plaza									
	HVAC								
	Respond to emergency calls							√	
	Cold/heat pump maintenance			√		√			
	Filter replacement			√			√		
	Boiler systems			√		√			
	Building Automation System	√				√			As appropriate
	Plumbing, rainwater								
	Respond to emergency calls							√	
	Backflow testing – all locations					√			
	Maintenance of the plumbing system			√		√			
	Elevators								
	Respond to maintenance and operations calls							√	
	Annual Inspection / Certification					√			
	Maintenance of the lifting system						√		
	Electrical								
	Respond to emergency calls							√	
	Supply and replacement of light bulbs						√	√	
	Inspection / Service of the electrical system			√					
	Uninterruptible power supply inspection			√		√			
	Inspection of the electrical panel/controls				√				
	Lighting (terminals, exterior, dock, car parks)	√							
	Fire Prevention System								
	Respond to emergency calls							√	And as required by the date stamped
	Fire Extinguisher Inspection			√		√			And as required by the date stamped
	FM200 Agent Inspection					√			As appropriate
	Fire Sprinkler System Inspection					√			
	Fire Alarm System Inspection					√			

Location or System	Action Required							Feedback
	Daily	Weekly	Monthly	Every 6 months	Yearly	As required	Emergency	
Security/Safety								
Respond to emergency calls							√	
Inspect security cameras and equipment			√			√		
Inspect control accesses, scanners, security arches		√	√					Monthly inspections carried out by the supplier
Inspect/test the alarm system			√		√			
Exterior								
Roof Inspection				√				
Inspect downspouts				√				
Visual inspection of façade			√					
Inspect entrance door, windows and locks				√				
Drainage inspection				√				
Cleaning	√							
Emergency Generator								
Respond to emergency calls							√	
Test Generator Running / ATS			√					
Inspect ATS					√			
Fuel tank inspection		√						And after use
Engine maintenance					√			
Intermodal Area								Such evidence will be reported to APL
Respond to emergency calls							√	
Visual inspection of the intermodal area		√						
Stormwater system			√		√			
Lighting cleaning, supply and replacement						√	√	
Inspect concrete/asphalt surfaces			√					
Cleaning/sweeping service	√	√	√			√		
Lift station visual inspection	√							
Garbage collection	√	√						
Piers								Such incidents will be reported to APL
Plumbing								
Respond to emergency calls							√	
Backflow testing - all locations					√			

	Maintenance of the plumbing system			√				

Location or System	Action Required							Feedback
	Daily	Weekly	Monthly	Every 6 months	Yearly	As required	Emergency	
Electricity								
Respond to emergency calls							√	
Respond to emergency calls						√	√	
Supply and replacement of light bulbs			√		√			
Inspection / Service of the electrical system			√		√			
Uninterruptible power supply inspection			√		√			
Inspect lighting quality				√				
Fire Suppression & Alarm								
Respond to emergency calls							√	
Fire Extinguisher Inspection		√	√		√			
Hydrant inspection			√		√			
Fire Alarm System Inspection					√			as applicable
Structural								
Visual inspection of the slab (and concrete finishes)		√						
Inspection of piles and beams					√			
Visual inspection of fenders		√						
Corrosion inspection in bollards		√						
Lifeguard inspection		√						
Inspection of emergency stairs		√						
Gangways								
General inspection (safety measures, condition paints and rust points)	√							
Visual inspection of the substructure/foundation (screws, joints...)	√							
Translation inspection (electric driving, condition of the groups, condition of the rails, wheel testing, bumper status, final race operation, manual operation test).	√							
Cab inspection - lifting (manual final lift test, lifting operation test, end-of-stroke lift test and adjustment)	√							

Location or System		Action Required							Feedback
		Daily	Weekly	Monthly	Every 6 months	Yearly	As required	Emergency	
	Cable greasing, corrosion cleaning, anticorrosive paint				√				
	Inspection of electrical installation (control gateway operation, connection of electrical elements in cabinets, emergency push-buttons)	√							
Fleet of vehicles and equipment									
	Indoor/outdoor cleaning		√				√		Washes at least each fuel load cycle with the interiors vacuumed monthly
	Visually inspect the body, engine, undercarriage			√					
	Oil change						√		3,000km
	Lubrication					√	√		
	Safety Inspection	√					√		

NOTES:	
1	Docks: Each pier will be inspected on a daily rotation schedule. The inspection will include a task list to identify broken or missing parts, electrical pedestals, piping, cleaning, safety and damage by occupants.
2	Metal walkways: inspection to identify corrosion, damage, welding quality, lubrication, non-slip surfaces, paint, connection points, rollers and safety.
3	Inputs and outputs: each entrance door will be inspected monthly and lubricated semi-annually to determine its operability, safety and security.
4	Plumbing: The Assistant Facility Manager/Facility Supervisor will inspect all associated pipes and fittings [weekly, monthly, quarterly, etc.] to make sure there are no leaks and that the fittings are working properly. Anti-siphon devices shall be inspected annually by a certified inspection service. Any corrosion or malfunction will be noted and scheduled for repair/replacement.

5	Air conditioning: heat pumps, air treatment units, wall heaters, air conditioning units, water pumps, indoor water treatment systems, garage unit heaters, etc. These systems will be serviced at least according to the program recommended by the manufacturer. The Assistant Facility Manager/Facility Supervisor must fulfill the responsibilities of the MP between those times. All units will be maintained to operate with maximum efficiency by the staff or supplier contracted through a maintenance contract. In addition, the Assistant Facility Manager/Facility Supervisor will inspect all systems monthly and have the air filters cleaned, replaced and disinfected as the outdoor units will be inspected for general operation, corrosion, lubrication, accumulation of debris or any other blockage, etc.
6	Electrical: The Assistant Facility Manager/Facility Supervisor will inspect all electrical distribution systems and associated accessories [weekly, monthly, quarterly, etc.] to ensure operability, safety, corrosion and safety.
7	Generators: Backup power systems will be inspected according to the manufacturer's recommendations through a maintenance contract to ensure proper operation and to verify that the unit is in a constant state of readiness.
8	Painting and exterior care: The exterior of the building will be inspected monthly and the necessary repairs will be noted and sent. This inspection shall include, but shall not be limited to: gutters, doors, sidewalks, windows, flashings, roof, vents, all extrusions, signage and general appearance problems.
9	Soils and landscaping: The Assistant Facility Manager/Facility Supervisor will ensure that all landscaped areas are maintained to include garbage disposal, pruning and plant replacement when necessary. Walkways and fences should also be inspected.
10	Parking Lots - Parking lots will be inspected for debris, large cracks, holes, deterioration, etc. The inspector will help determine when it is necessary to re-scratch and seal to be completed. Regular hand/energy sweeping and batch harvesting will be done daily/weekly. Sweeping by the contracted vacuum truck will be scheduled periodically as needed.
11	Roof: The Assistant Facility Manager/Facility Supervisor will inspect all roofs monthly for leaks, dampness or other signs of roof failure and inspect external gutters. Inspecting roofs and gutters during heavy rains will be important to find faults.
12	Elevators/Elevator Equipment: Elevators and elevator equipment will be inspected monthly with verification from more thorough quarterly/annual inspections performed by a qualified contractor.
13	Equipment: the Assistant Facility Manager/Facility Supervisor must regularly inspect all necessary tools and equipment. A physical inventory of the land and maintenance equipment will be carried out. Prepared annually and maintained throughout the year.
14	Vehicles: Fleet vehicles must be inspected and maintained regularly for cleanliness, damage, oil changes, lubrication, parts wear and safety. Vehicles shall be washed at least in each fuelling cycle with the interiors vacuumed monthly.
15	General: Daily, Weekly, Quarterly, Annual, etc., the Assistant Facility Manager/Facility Supervisor will tour the facility(s) using the task list developed through the CMMS system, identify any and all repairs of minor and major equipment and present the findings to the General Manager and enter the CMMS system.

3.1.3 Identification

The objective of preventive maintenance is the identification of critical areas and potential equipment failures. The identification will be organized and managed by hierarchy as follows:

- Identification of the areas of the facility that are critical to the operation.
- Identification of equipment within the facility that is critical to the operation of the areas.
- Identification of recurring tasks required for adequate and timely preventive maintenance.
- Identification, reporting and response to all items related to emergency or high-priority tasks.
- Identify and report all areas/equipment in poor condition and safety-related items.

3.1.4 Prioritization

Once identified, the list of items will be prioritized as follows:

- Monthly: the scheduled Maintenance Plan will be updated in the CMMS system.
- The list of work items by type of demand will be prioritized, maintained, and reviewed regularly.
- The prioritized list will consider safety, critical areas, and assets as the top priority.

3.1.5 Implementation

The prioritized list will be implemented as follows:

- Once identified and prioritized, the work item will be entered into the CMMS system and a work order will be scheduled.
- Following the procedures of the CMMS system, the work order will be assigned to an employee, scheduled, and completed in the time allocated to the same.

3.1.6 Training & Development

To maintain high levels of maintenance quality, Nassau Cruise Port Limited is committed to conducting training and development courses for all maintenance employees.

3.1.7 CMMS – Computerized Maintenance Management Software

It is proposed to use a Computerized Maintenance Management Software (CMMS) system to manage all scheduled preventive maintenance and work orders on demand (reactive maintenance).

Like all CMMS programs, preventive and on-demand work orders are scheduled and tracked within the system. Locations, buildings, equipment, and vehicles are identified, inventoried, and associated with all work orders. Regularly scheduled preventive maintenance (PM) work orders are automatically generated and assigned to maintenance technicians based on criteria provided by department managers. On-demand work orders (or reactive maintenance) are generally one-off events like repairs and are generated by staff as needed. A work order remains open until it is closed by the assigned technician and is therefore held accountable. Work order history, maintenance trends, costs, inventory, and key performance indicators are monitored and reviewed using real-time reporting.

Maintenance personnel will be trained in this software to expedite its use and prompt implementation.

4.0 Records:

- List of approved training courses.
- Training Records
- Maintenance schedule/plan.
- Work orders.
- Inventories.
- KPIs