Work Instruction - Operations

AUTOMATIC TRAIN WASHING WORK INSTRUCTION

HITACHI

Hitachi Rail Honolulu JV

Work description: The purpose of this document is to describe the actions to be taken by O&M staff when an automatic train washing operation has to be performed. This document is applicable for the Operation and Maintenance Services on the Honolulu Rail Transit Project (HRTP).		
Scope: Automatic Train washing within the Rail Operations Center (ROC)		
References: Honolulu Rail, LY13-014, Light Train Wash Plant O&M manual		
PPE and precautions	**Competencies or qualifications**	**Licenses or permits required**
Nil	Yard Controller, Rolling Stock Repairman	Nil
Tools and equipment required		
Nil		

System Description	The Automatic Train Washing process can be initiated by OCC through the Automatic Train Supervision (ATS). The wash plant is pass-through type (i.e. the train is washed whilst passing through the wash bay) and it has three operational states: • AUTO mode : the system washes the train that is passing through the wash bay • Stand by: the system does not wash the train passing through the bay, but secondary systems are operational. Trains can move through the wash bay • OFF : all the systems, including the PLC, are disabled. Trains cannot move through the wash bay On the ATS screen, the washing plant might have the following aspects: • Steady green when the system is ready for washing • Flashing yellow when washing is ongoing • Steady yellow, upon washing completion Statuses of the Train Wash Facility can be monitored by OCC and the system can be commanded through the Master Control Panel located in the wash plant technical room. Through the ATS, multiple Destination ID can be selected to move a train exiting from service to storage tracks passing through the wash bay. Once one of those destination ID is applied, as long as the Train Wash Facility is in AUTO mode, the train is washed whilst passing through the wash bay. The ATC system impedes to route a train through the wash plant only if the wash bay is not completely clear (e.g. if another train is being washed and did not completely pass through the bay). In case of fault to the wash plant, no train can be routed through the bay. If the fault occurs during the movement of a train trough the bay, the train will continue its movement, but no other train can be routed through the bay. Each electrical panel door is provided with emergency stop buttons, which provide emergency shutdown of the wash system when pressed. Need Picture of ATC Panel and Rolling Stock Repairman's Panel

Approved By: **Signature:** **Date:**	☐ Director, Operations and Maintenance	☐ Department Manager	☐ Manager, HSE (Operations and Maintenance)

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Instructions	
Yard Controller	The Yard Controller must: • Verify, prior to route the train through the Train Wash Facility, that the train wash plant is ready (i.e. train wash plant steady green on the ATS workstation) • Route the train through the Train Wash Facility as required The Yard Controller shall: • Before routing the train for washing: o Verify that the train wash plant is ready (i.e. steady green on ATS workstation) o If required, co-ordinate with the Rolling stock repairman to put the wash plant in AUTO mode o Make sure that there is no work going on in the train wash area • Once verified that the aforesaid conditions are met: o Assign the relevant destination ID to the train for washing o Monitor the washing cycle and that no anomaly arises during washing
Rolling Stock Repairman	The Rolling Stock repairman is shall: • Upon request from Yard Controller, put the Train Wash Facility in Auto mode and confirm that it is up and running • Be ready to push the E-stop button in case of need • After train wash, put the Train Wash Facility in the state required by the OCC (auto, stand-by, off) • Leave the site upon Yard Controllers authorization