

# MAINTENANCE AND CLEANING OF TRAINS

**Work description:** The purpose of this document is to define the protocol according to which the maintenance and cleaning of trains shall be executed. The procedure applies to the O&M stage of the H RTP project.

**Scope:** Trains entering the Maintenance Facility for maintenance or Cleaning

**References:** HNL-09512 – Train Handover from Operations to Maintenance and vice-versa, HNL-09531 – Use of 750V Stingers in the shop, HNL-09528 – Train movement in manual area, HNL – 09501 Automatic train washing, HNL-09503 – Dynamic Departure Test procedure

**PPE and precautions**

Hi Visibility Vest

**Competencies or qualifications**

Rail Car Leading Technician, YCB Operator, Train Operator

**Licenses or permits required**
**Tools and equipment required**

Nil

**Maintenance of Trains**

Railcar Leading Technician

Maintenance of trains will be regularly scheduled in line with maintenance requirements

The railcar leading technician must:

- Assign the YCB operator
- Explain in detail the train movement to be executed to the YCB Operator

YCB Operator

The YCB Operator must:

- Set the route required for the movement in the manual area through the ATS workstation located in YCB
- Ensure the opening/closing of the OSB gates as required
- authorize the movement once the route is set
- Never leaving the YCB workstation without logging out


**Warning**

*Train movements are only to be Authorized when all required safety requirements have been confirmed and in place*

Train Operator

The Train Operator must:

- Follow the instructions of the YCB operator
- Communicate to YCB operator any issue during the movement
- Move the train in by-pass mode from the transition platform
- Move the P2R or Niteq Car mover to position the train on the required OSB track

**Work on tracks in front of the shop**

All maintenance activities on trains shall be executed in the OSB. However, some small activities on train interiors can be executed on the tracks in front of the shop. In case of works on a train parked on one of the tracks in front of the shop, specific safety measures shall be in place, namely:

- The train shall not be parked on switches
- No collector shoe shall contact third rail
- Third rail shall be de-energized
- Wheel chokes shall be positioned to prevent movements

Approved By:

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Signature:

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| <b>Train Maintenance in the OSB</b> | <p>Maintenance in the OSB shall be executed in compliance with the work order. Tracks in the OSB are not provided with third rail but trains can be powered through stingers if required (see HNL- 09531 – Use of 750VStingers in the shop).</p> <p>The following rules apply for train maintenance:</p> <ul style="list-style-type: none"> <li>If the train is not on an at grade track, it shall be accessed through the relevant ramps or safety ladders as required</li> <li>Trains shall enter the OSB at 3mph</li> <li>In order to avoid the risk of falling, in the event of works on a train in presence of open doors (e.g. doors testing with a train positioned on tracks on pillars), fall protection equipment shall be used.</li> <li>When the train is within the OSB, collector shoes shall be retracted or covered to prevent the risk of hitting them.</li> <li>After maintenance, the train shall undergo a DDT prior the handover to operations</li> </ul> |
| <b>Cleaning of Trains</b>           | <p>Cleaning of trains is performed on track YW-2 at the OSB. Once the train is berthed to the cleaning and inspection platform, to prevent further movements, the control lines can be dropped off through a dedicated cleaning and inspection key switch located on the platform. When the switch is turned off, the control lines are dropped and:</p> <ul style="list-style-type: none"> <li>Blue ATC Indicator Lights turn on (i.e. illuminate)</li> <li>An alarm at OCC is generated, indicating that the control lines are off in that area (i.e. W504 Blue light Signal – Train Movement inhibit)</li> </ul>  |
| <i>Train Controller</i>             | <p>The Train Controller must:</p> <ul style="list-style-type: none"> <li>Route the train to the cleaning and inspection platform after informing the maintenance department</li> <li>Confirming that control lines are dropped on the inspection platform by checking the relevant alarm on the ATS workstation</li> <li>Routing the train after confirming with the Railcar Technicians that no staff are on the train and the train is safe to move</li> </ul>   |
| <i>Railcar Technician</i>           | <p>The Railcar technician is responsible for:</p> <ul style="list-style-type: none"> <li>Checking that the train is correctly berthed once arrived at the cleaning and inspection platform</li> <li>Dropping down the control lines</li> <li>Opening train doors to allow cleaning staff to enter in the train</li> <li>Conducting the required inspection (if any)</li> <li>Once the activity is finished, and cleaning staff are safely on the platform, turn on the control lines using the key switch (on position)and inform the Train Controller</li> </ul>  |
| <b>Definitions</b>                  | <p><u>YCB Operator</u> : O&amp;M staff member trained and qualified to use the signaling workstation located in the YCB and required to move switches in manual area.</p> <p>Train Operator: O&amp;M staff member trained and qualified to drive a train in the manual area in by-pass mode.</p>   |