

Work Instruction - Operations	<b>HITACHI</b> 
<b>HANDLING DEFECTIVE OR BROKEN RAIL WORK INSTRUCTION</b>	

<b>Work description:</b> This work instruction describes the steps to handle defective/broken rails.		
<b>Scope:</b> This work instruction is written specifically for the OCC operating staff of Honolulu Rail Transit		
<b>References:</b> HNL-09404 Equipment Out of Service/Restrictive Service Work Instruction, HNL-09100 Roadway Worker Protection Manual, HNL-09421 Contingency Plan (Alternate Service Plan) Work Instruction, HNL-09408 Imposing or Withdrawing Temporary Speed Restriction (TSR) Work Instruction		
<b>PPE and precautions</b>	<b>Competencies or qualifications</b>	<b>Licenses or permits required</b>
Nil	Train Controller/Yard Controller, Engineering & Fault Controller, OCC Supervisor, Information Controller, Maintenance Team	Nil
<b>Tools and equipment required</b>		
Nil		

Handle a defective or broken rail	
<i>Train Controller / Yard Controller</i>	You must: <ul style="list-style-type: none"> <li>Stop any train / OTE movement toward / over the affected area</li> <li>Tell the OCC Supervisor of the failure</li> <li>Tell the Engineering &amp; Fault Controller to arrange a trackwork maintenance team to the site to inspect the rail</li> <li>Protect the maintenance team fouling the track and/or establishing a work block limit following the HNL-09100 Roadway Worker Protection Manual</li> <li>On instructions from the OCC Supervisor, impose the Temporary Speed Restriction following HNL-09408 Imposing or Withdrawing TSR</li> <li>On instructions from the OCC Supervisor, implement the selected HNL-09421 Contingency Plan (Alternate Service Plan)</li> <li>On instructions from the OCC Supervisor, resume normal train service</li> <li>Log the event in the Train Controller Log</li> </ul>
<i>Engineering &amp; Fault Controller</i>	You must: <ul style="list-style-type: none"> <li>Arrange a trackwork maintenance team to the site to inspect/repair the broken rail</li> <li>Keep track of the inspection/repair progress</li> <li>Inform the OCC Supervisor and the Train Controller about the latest inspection/repair progress</li> </ul>
<i>OCC Supervisor</i>	You must: <ul style="list-style-type: none"> <li>Follow the inspection/fault rectifying progress closely</li> <li>Assess the restriction recommended by the trackwork maintenance team</li> <li>If train service over the affected area is allowed only at reduced speed, then instruct the Train Controller to impose the Temporary Speed Restriction following HNL-09408 Imposing or Withdrawing Temporary Speed Restriction Work Instruction</li> <li>If train service over the affected area is not allowed until the broken rail is replaced, then:               <ul style="list-style-type: none"> <li>Instruct the Train Controller to establish an emergency track possession (work block limit) to protect the maintenance team following the HNL-09100 Roadway Worker Protection Manual</li> </ul> </li> <li>Decide whether a contingency plan is needed to run train service in the unaffected area</li> <li>If required, instruct the Train Controller to implement the selected HNL-09421 Contingency Plan (Alternate Service Plan) Work Instruction</li> <li>Instruct the Information Controller to make regular public announcements on service delays to trains and stations affected</li> <li>Follow the fault rectifying progress closely</li> <li>Based on the confirmation/recommendation from the Engineering &amp; Fault Controller and the maintenance team, instruct the Train Controller to resume normal train service and instruct the Information Controller to make public announcements on service resumptions to trains and stations</li> <li>Log the event in the OCC Supervisor Daily Report</li> </ul>




<b>Approved By:</b>	<input type="checkbox"/> Director, Operations and Maintenance	<input type="checkbox"/> Department Manager	<input type="checkbox"/> Manager, HSE (Operations and Maintenance)
<b>Signature:</b>			
<b>Date:</b>			

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# HANDLING DEFECTIVE OR BROKEN RAIL WORK INSTRUCTION



<i>Information Controller</i>	<p>On instructions from the OCC Supervisor, you must:</p> <ul style="list-style-type: none"> <li>• Make public broadcast announcements on service delays to trains and stations affected</li> <li>• Make regular announcements to update trains and stations affected</li> <li>• Monitor crowd conditions on affected platforms</li> <li>• Make public announcements on resumption of normal train service to trains and stations</li> <li>• Log the event in the Information Controller Log</li> </ul>
<i>Maintenance Team</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>• Coordinate with the Train Controller to establish the required protection measures for on-track protection following the HNL-09100 Roadway Worker Protection Manual – before and during the fouling of the track and/or the need to establish a work block limit if the emergency track possession is required for emergency track repair</li> <li>• Assess the failure</li> <li>• Repair the failure where possible</li> <li>• If the failure cannot be remedied in the short term, determine the proper restriction to be put in place over the affected area until the completion of final repair:</li> <li>• Temporary train service suspension (no train / OTE movement) over the affected area</li> <li>• Speed restriction – in the event a speed restriction is needed, install the relevant or equivalent speed boards (samples as suggested below)</li> <li>• If a restriction has been applied, handle the restriction in accordance with the procedure HNL-09404 Equipment Out of Service/Restrictive Service.</li> <li>• Tell the Engineering &amp; Fault Controller the recommended restriction (for example, TSR over which section of the track and the reduced speed value)</li> <li>• Once the problem is solved, update and close the associated work order with all relevant details. Work order updates will be supporting documents for the removal of the restriction</li> </ul>

## Illustrated Example of Temporary Speed Restrictions Speed Boards

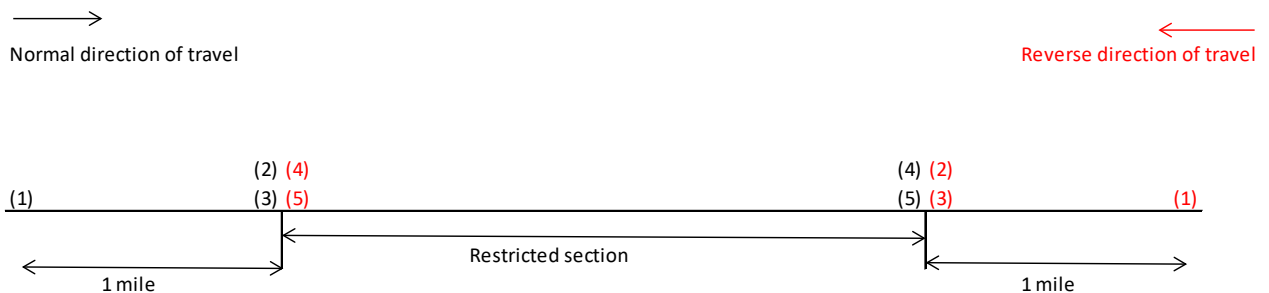
Signal	Meaning	Notes
 (1)	Warning – temporary speed restriction in 1 mile	To be installed 1 mile before the start of the restriction
 (2)	Start of section with Temporary speed limit	This coincides with the end of section with temporary speed limit on the same track, opposite direction of travel.
 (3)	Speed limit 10 mph (illustrative)	This coincides with the end of speed limit on the same track, opposite direction of travel.

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## Illustrated Example of Temporary Speed Restrictions Speed Boards

Signal	Meaning	Notes
 (4)	End of section with Temporary speed limit	This coincides with the start of section with temporary speed limit on the same track, opposite direction of travel.
 (5)	End of speed limit 10 mph (illustrative)	This coincides with the start of speed limit on the same track, opposite direction of travel.

## Illustrated Example of Speed Boards Arrangement



- (1) Warning - temporary speed restriction in 1 mile
- (2) Start of temporary speed limit
- (3) Speed limit
- (4) End of temporary speed limit
- (5) End of speed limit