

## TRACTION POWER FAILURE

<b>Work description:</b> This work instruction describes the handling of Traction Power Failures		
<b>Scope:</b> This work instruction is written specifically for the OCC operating staff of Honolulu Rail Transit.		
<b>References:</b> HNL-09515 Access to the Emergency Walkway, HNL-09331 Train Evacuation, following HNL-09421 Contingency Plan		
PPE and precautions	Competencies or qualifications	Licenses or permits required
Nil	Engineering and Fault Controller, OCC Supervisor, Train Controller, Information Controller	Nil
<b>Tools and equipment required</b>		
Nil		

If the power failure is non-vehicle related, affecting only a localized power section,	
<i>Engineering and Fault Controller</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>report the incident to the OCC Supervisor and the Train Controller</li> <li>make sure there is no abnormal indications on the traction power supply network (SCADA) then try closing the tripped circuit breakers</li> <li>if unsuccessful after 3 attempts: <ul style="list-style-type: none"> <li>inform the maintainer to arrange a TPE engineer/technician to proceed to the scene (TPSS/GBS) to examine the TPE and estimate the recovery time needed</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> </li> </ul>
<i>OCC Supervisor</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>instruct the Information Controller to make public broadcast announcements on service delays to trains and stations</li> <li>instruct the Information Controller to monitor crowd conditions on affected platforms</li> <li>follow the inspection/fault rectifying progress closely</li> </ul> <p>depending on the operational circumstances, if the estimated recovery time is not acceptable:</p> <p>instruct the Train Controller to dispatch Train Attendants/Station Attendants on the platforms/affected area to carry out train evacuation</p> <p>instruct the Train Controller to implement alternative services following HNL-09421 Contingency Plan on the unaffected sections if applicable</p> <p>instruct the Information Controller to make public announcements on service delays to trains and stations</p> <p>on confirmation from the Engineering and Fault Controller on the recovery of TPE equipment, 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</p> <ul style="list-style-type: none"> <li>log the event in the OCC Supervisor Daily Report</li> </ul>

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<i>Train Controller</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>make sure trains moving towards the affected area are stopped at stations to prevent bunching up</li> </ul> <p>on instructions from the OCC Supervisor, make the affected area safe and dispatch Train Attendants/Station Attendants to reach the trains to carry out train evacuation</p> <p>on instructions from the OCC Supervisor, implement alternative services following HNL-09421 Contingency Plan</p> <p>on instructions from the OCC Supervisor, resume normal train service</p> <p>log the event in the Train Controller Log</p>
<i>Information Controller</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>on instructions from the OCC Supervisor: <ul style="list-style-type: none"> <li>make public broadcast announcements on service delays to trains and stations</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> </ul> </li> </ul> <p>log the event in the Information Controller Log</p>
<i>Train Attendants / Station Attendants</i>	<p>You must, on instructions from the Train Controller:</p> <ul style="list-style-type: none"> <li>proceed to assist passenger detrainment at the platforms</li> </ul> <p>follow the safe path to reach those trains stranded between stations and carry out train evacuation following:</p> <p>HNL-09515 Access to the Emergency Walkway</p> <p>HNL-09331 Train Evacuation (Lineside Evacuation)</p>

## If the power failure is non-vehicle related, affecting the entire mainline (a system-wide traction power failure),

<i>Engineering and Fault Controller</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>report the system-wide traction power failure to the OCC Supervisor and the Train Controller</li> <li>call the single point of contact from HECO to inquire about the system-wide traction power failure</li> <li>inform the maintainer (TPE) to carry out maintenance intervention if required</li> <li>keep track of the power recovery/repair progress</li> <li>inform the OCC Supervisor and the Train Controller about the power recovery/repair progress</li> </ul>
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<i>Train Controller</i>	You must: <ul style="list-style-type: none"> <li>• wait until all trains coasted to a stop, and the start of the back-up generators</li> <li>• monitor trains movements again toward their nearest stations at 10mph</li> <li>• if there are any traction power supply tripped then make sure only one train can move at a time to their nearest stations</li> <li>• hold each train berthed at a station to allow the completion of passenger detrainment</li> <li>• suspend all train service after completion of all passenger detrainment</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>OCC Supervisor</i>	You must: <ul style="list-style-type: none"> <li>• instruct the Information Controller to make public broadcast announcements on detrainments at stations due to temporary service suspension due to a system-wide traction power failure</li> <li>• instruct the Information Controller to make public broadcast announcements on service delays to trains and stations</li> <li>• follow the inspection/fault rectifying progress closely</li> </ul> on confirmation from the Engineering and Fault Controller on the recovery of the traction power or the recovery of TPE equipment, 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 <ul style="list-style-type: none"> <li>• log the event in the OCC Supervisor Daily Report</li> </ul>
<i>Information Controller</i>	You must: <ul style="list-style-type: none"> <li>• on instructions from the OCC Supervisor:             <ol style="list-style-type: none"> <li>a. make public broadcast announcements on detrainments at stations and the temporary service suspension due to a system-wide traction power failure</li> <li>b. make public broadcast announcements on service delays to trains and stations</li> </ol> </li> </ul> make regular announcements to update trains and stations affected make public announcements on resumption of normal train service to trains and stations log the event in the Information Controller Log

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## If the power failure is caused by a defective vehicle/train,

<i>Train Controller</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>report the incident to the OCC Supervisor</li> </ul> <p>inform the Engineering and Fault Controller to arrange maintainers (rolling stock) on board for maintenance intervention</p> <p>make sure trains moving towards the defective train are stopped at stations to prevent bunching up</p> <p>on completion of examination of the defective train by the maintainer, if the train power cannot be recovered within a short period of time, seek OCC Supervisor authorization to:</p> <ul style="list-style-type: none"> <li>implement alternative services following HNL-09421 Contingency Plan</li> <li>take the train off service following HNL-09329 Train Rescue by Means of Another Train <ul style="list-style-type: none"> <li>make sure the maintainer has retracted all the current collector shoes from the defective train</li> </ul> </li> </ul> <p>upon successful taking the defective train off service, resume normal train service</p> <p>log the event in the Train Controller Log</p>
<i>Information Controller</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>on instructions from the OCC Supervisor: <ul style="list-style-type: none"> <li>make public broadcast announcements on service delays to trains and stations</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> </ul> </li> </ul> <p>log the event in the Information Controller Log</p>
<i>Engineering and Fault Controller</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>on request from the Train Controller, inform the maintainer to arrange a rolling stock technician on board the train to examine the train power failure and estimate the recovery time needed</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>

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Work Instruction - Operations	
<b>TRACTION POWER FAILURE</b>	

<i>OCC Supervisor</i>	<p>You must:</p> <ul style="list-style-type: none"> <li>• instruct the Information Controller to make public broadcast announcements on service delays to trains and stations</li> <li>• instruct the Information Controller to monitor crowd conditions on affected platforms</li> <li>• follow the inspection/fault rectifying progress closely</li> </ul> <p>depending on the operational circumstances, if the estimated recovery time is not acceptable, instruct the Train Controller to take the train off service by using a rescue train to the nearest siding</p> <p>instruct the Information Controller to make public announcements on resumption of normal train service to trains and stations</p> <ul style="list-style-type: none"> <li>• log the event in the OCC Supervisor Daily Report</li> </ul>
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