

## FAULT REPORTING PROCESS

**Work description:** This work instruction details the fault reporting process when an abnormal or exceptional condition occur.

**Scope:** This work instruction is written particularly for the OCC operating staff of Honolulu Rail Transit.

**References:** Nil

PPE and precautions	Competencies or qualifications	Licenses or permits required
Nil	Engineering and Fault Controller, maintainer (maintenance supervisor), maintainer (first line maintenance team)	Nil

### Tools and equipment required

Nil

<i>All staff and contractors</i>	<p>On detecting/discovering a fault, you must provide the following information as best you can to your Landlord (If you cannot locate the Landlord, report the fault directly to the Engineering and Fault Controller in the OCC):</p> <ul style="list-style-type: none"> <li>• date and time that the faulty (or suspected faulty) equipment</li> <li>• name, title (and company where required)</li> <li>• location of the faulty (or suspected faulty) equipment</li> <li>• equipment information including the name and possibly asset code or serial number</li> <li>• failure symptom such as a brief description of the failure symptom including error indication, alarm message or abnormality (e.g. burning smell) etc.</li> <li>• system, subsystem and equipment that have been affected (<b>Figure 1</b>)</li> <li>• current and potential impact on train, depot and/or station operations</li> <li>• current and potential hazard that may lead to a major equipment breakdown or injury</li> </ul>
<i>Landlord</i>	<p>On detecting/discovering a fault, or receiving a preliminary fault report, you must:</p> <ul style="list-style-type: none"> <li>• make sure the essential information about the fault is obtained as detailed as possible</li> <li>• validate the fault if possible</li> <li>• if it is a genuine fault, relay the fault report to the Engineering and Fault Controller</li> </ul>

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<i>Engineering and Fault Controller</i>	<p>On receiving a fault report, you must:</p> <ul style="list-style-type: none"> <li>collect all relevant information of the failure and record the fault in the MMIS as a service request</li> <li>determine the priority of the repairing work</li> <li>direct the service request (along with the collected information) to the appropriate maintainer to arrange the first line maintenance team for maintenance intervention</li> <li>where required, coordinate with the Train Controller/Yard Controller to establish a safe path for the maintainers to access the site for the repair work</li> <li>where applicable, switch OFF the power supply equipment at the affected area</li> <li>keep track of the inspection/repair progress</li> <li>inform the OCC Supervisor about the latest inspection/repair progress</li> </ul>
<i>Maintainer (supervisor)</i>	<p>On receiving the service request from the Engineering and Fault Controller, you must:</p> <ul style="list-style-type: none"> <li>acknowledge and assess the service request through the MMIS</li> </ul> <p>convert the service request to a work order and determine whether to dispatch the responsible first line maintenance team stationed in the depot or strategic stations to handle the failure immediately or to schedule the work order until either off peak period or Non-Revenue Service Hours</p> <p>where required contact with the responsible maintenance manager to call-out the technical support team or DB contractor when the first line maintenance team cannot handle the failure alone</p> <p>regularly update the Engineering Coordinator on the progress of repairs</p>
<i>Maintainer (first line maintenance team)</i>	<p>On receiving the work order from your supervisor, you must:</p> <ul style="list-style-type: none"> <li>respond to the supervisor's instruction</li> </ul> <p>carry out preliminary diagnosis of the fault</p> <p>isolate the faulty unit from the system if simple repair cannot clear the fault</p> <p>if the faulty equipment affects the safe operation of a train, inform the Engineering and Fault Controller who must alert the Train Controller to withdraw the train from service</p> <p>provide update on the progress of repair work and advise the duty maintenance supervisor the estimated time to complete the repair</p>

**Table 1 - Priority**

<b>Priority (Notification)</b>	<b>Description</b>
<i>Urgent Notification</i>	<i>requires immediate attention of technician. This could be any alarm or abnormal condition which may jeopardize the safe operation of the H RTP system, the safety of passengers and staff or any blocking fault.</i>
<i>Non-Urgent Notification</i>	<i>does not require immediate attention of technicians</i>

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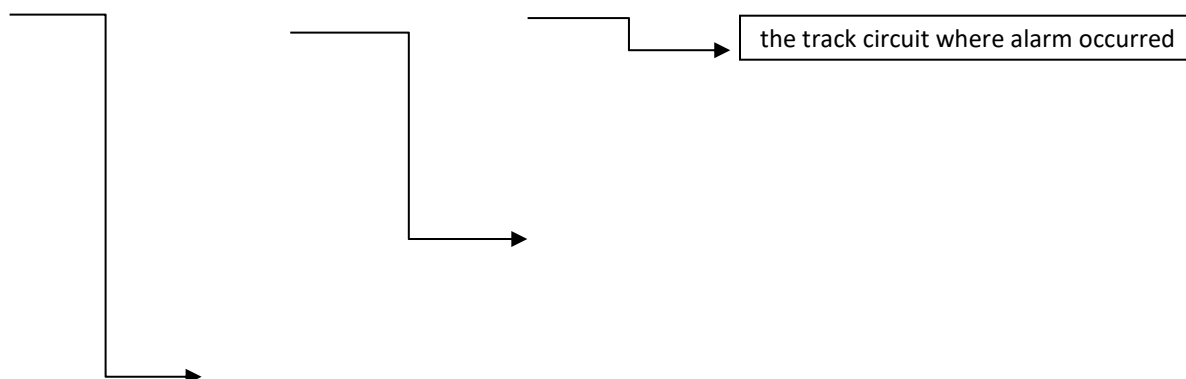
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**Table 2 - Functional Location and whom to apportionment criteria**

<b>Alarm Description</b>	<b>Apportioned to</b>
<ul style="list-style-type: none"> <li>Train HVAC alarm</li> <li>Train Door alarm</li> <li>Train Brake alarm</li> <li>Train Fire alarm</li> <li>Train HV-MV-LV (Aux converter fault, Battery charger fault, DC/DC 24V converter failure)</li> <li>Overshoot/undershoot/skip station</li> <li>Train interiors (e.g. lights, EDP, fire extinguisher, floor, glass, etc.)</li> </ul>	Vehicle Maintenance Manager/Vehicle Technician
<ul style="list-style-type: none"> <li>Train TLC related alarm (ECP, DRCF, PID, PA)</li> </ul>	TLC technician
<ul style="list-style-type: none"> <li>ATP Loss Cab signal</li> <li>TWC link failure</li> <li>ATP Overspeed</li> <li>ATP Missed Bond Crossing</li> <li>ATP AFOIIC failure</li> <li>ATP or ATO Spin/Slide</li> </ul>	Wayside ATC technician
<ul style="list-style-type: none"> <li>MLK AFOIIC Communication fault</li> </ul>	Wayside technician

**Figure 1 - A sample of MMIS notification title (for train related alarms)**

**TRAIN XX - Alarm - Track Circuit**



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**FAULT REPORTING PROCESS**

Train number

**Example of alarms:**

ATP overspeed  
ATP Loss of Cab signal  
Mechanical brake failure MB and TB  
Blended brake failure MB2  
ATP Spin/slide  
TWC Link Failure  
HVAC Major Fault

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