Work Instruction - Operations

TRAIN RESCUE BY MEANS OF SERVICE VEHICLES WORK INSTRUCTION

HITACHI
Hitachi Rail Honolulu JV

Work Instruction: This work instruction details the train rescue operation by using a Multi-Purpose Vehicle (MPV)

Scope: This work instruction is written specifically for OCC operating staff and MPV Operator of the Honolulu Rail Transit.

References:
HNL-09421 Contingency Plan (Alternate Service Plan) Work Instruction, HNL-09331 Train Evacuation Work Instruction, HNL-09515 Access to the Emergency Walkway Work Instruction

PPE and precautions	Competencies or qualifications	Licenses or permits required
Nil	OCC Supervisor, Train Controller, Information Controller, Engineering & Fault Controller, Train/Station Operators, MPV Operator	MPV Driver

Tools and equipment required

Nil

Warning

Only if the faulty train cannot be moved on its own and if the rescue with another train is not possible, the train rescue shall be performed by means of MPV.

Warning

MPV can push or pull ONLY empty trains; thus, passengers on the faulty train must first be evacuated before the train rescue.

Train Rescue	

OCC Supervisor	Having decided to proceed with train rescue using MPV, you must:
	• Instruct the Train Controller to:
	  ○ Evacuate passengers from the faulty train following the work instruction HNL-09331 Train Evacuation Work Instruction
	  ○ Clear a path for the MPV to reach the faulty train from the Yard
	  ○ Perform train rescue and move the faulty train to the Yard or East Kapolei westbound platform or Aloha Stadium eastbound platform
	• Instruct the Information Controller to make public announcements to the affected trains/stations:
	  ○ Tell passengers on board the faulty train to keep calm, not to open any train doors and to wait for the arrival of staff on board the train
	  ○ Tell passengers of the affected trains and stations of any delay due to service disruption
	  ○ Monitor any overcrowding situation at stations
	  ○ Tell passengers of the affected trains and stations of the alternative passenger service
	• Evaluate if an alternative passenger service is needed – if so, follow HNL-09421 Contingency Plan (Alternate Service Plan) Work Instruction
	• Oversee the implementation of the alternative passenger service (if required) and the train rescue operation

Train Controller	On OCC Supervisor's authorization, you must:
	• Evacuate passengers from the faulty train following the work instruction HNL-09331 Train Evacuation Work Instruction
	  ○ If the faulty train is between stations, dispatch 3 staff to the faulty train (2 Train/Station Operators to assist train evacuation and 1 to Train Operator to oversee the train rescue) following the work instruction HNL-09515 Access to Emergency Walkway Work Instruction
	  ○ If the faulty train is berthed at a station, dispatch 1 Station Operator to assist passenger detrainment to the station platform then dispatch 1 Train Operator to assist train rescue
	• On confirmation that all passengers have been safely detrained/evacuated to the station platform:
	  ○ Establish a safe path for the MPV to reach the faulty train
	  ○ Where required, move other trains out of the way so that the MPV can move into the faulty train
	  ○ Authorize the MPV Operator to drive the MPV at 10mph and stop at the wayside marker identified by the track circuit limit of where the faulty train stopped
	  ○ If the path to the faulty train is clear, authorize the MPV Operator to drive the MPV at 3mph from the track circuit limit to stop at 5 feet from the coupler of the faulty train

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

Train Controller (Continued)	○ Tell the MPV Operator to verify the couplers are in the gathering range and no obstacle between the MPV and the faulty train ○ On confirmation from the MPV Operator (within gathering range and no obstacle), authorize the MPV Operator to proceed and to couple the MPV with the faulty train at speed lower than 3mph
	 ***Warning*** *If the couplers are out of their gathering range, tell the Train Operator (faulty train) to manually align the coupler heads then return to the faulty train and use the voice radio to guide the MPV Operator to proceed and to couple the MPV with the faulty train – third rail must be de-energized before allowing the Train Operator (faulty train) to access the track.*
	○ After successful coupling, authorize the MPV Operator to drive the entire consist (faulty train and the MPV) at a maximum speed of 10mph to the Yard or East Kapolei westbound platform or Aloha Stadium eastbound platform ○ If the faulty train is to be pushed by MPV, the Train Operator (faulty train) must be present on board the faulty train and stand at the leading end of the consist, so as to maintain constant communication via the voice radio with the MPV Operator and the OCC while the entire consist is moving to the Yard or East Kapolei westbound platform or Aloha Stadium eastbound platform ○ See further details below under Pulling Operations and Pushing Operations
Information Controller	On OCC Supervisor's instruction, you must: • Tell passengers on board the faulty train to keep calm, not to open any train doors and to wait for the arrival of staff on board the train • Tell passengers of the affected trains and stations of the service disruption • Monitor any overcrowding situation • Tell passengers of the affected trains and stations of the alternative passenger service • Tell passengers of the affected stations of the coupled consist which is not in service
Engineering and Fault Controller	Where required or on request from the Train Controller, you must: • De-energize (turn OFF) the third rail before the start of train evacuation following the work instruction HNL-09331 Train Evacuation Work Instruction • De-energize (turn OFF) the third rail before staff accessing the track
Train or Station Operator assigned to the faulty train to assist in Passenger Evacuation	On Train Controller's instruction, you must: • Where required, access the walkway, and reach the faulty train following the safe path established by the Train Controller and follow work instruction HNL-09515 Access to the Emergency Walkway Work Instruction to access the track • Evacuate passengers following the work instruction HNL-09331 Train Evacuation Work Instruction • Tell OCC (Train Controller) when the passenger evacuation is completed
Train Operator assigned to the faulty train to oversee the Train Rescue	On request from the Train Controller, you must: • Where required, access the walkway, and reach the faulty train following the safe path established by the Train Controller and follow work instruction HNL-09515 Access to the Emergency Walkway Work Instruction to access the track • Manually align the coupler heads then guide the MPV Operator to proceed and to couple the MPV with the faulty train
MPV Operator	On Train Controller's instruction, you must: • Operate the MPV as per Train Controller's instructions to reach the faulty train • Drive the MPV at 10mph and stop at the wayside marker identified by the track circuit limit of where the faulty train stopped • Drive the MPV at 3mph from the track circuit limit to stop at 5 feet from the coupler of the faulty train • Verify the couplers are in the gathering range and no obstacle between the MPV and the faulty train • If the gathering range is within range and on instruction from the Train Controller, drive the MPV to couple the MPV with the faulty train at speed lower than 3mph • If the gathering range is not within range then wait until the Train Operator aligned the coupler heads, then follow the guidance from the Train Operator given via the voice radio, and drive the MPV to couple the MPV with the faulty train at speed lower than 3mph • Check the outcome of the coupling - if the couplers are inserted and locked correctly then one of the two lights (32 and 33) should be highlighted • Report the outcome of the coupling to the Train Controller and wait for instruction

Note

It is possible to limit automatically the MPV's speed during coupling phase using the select switch 30. This switch limits automatically the maximum speed of the vehicle to avoid shocks on the couplers.

- Release the parking brake on the faulty train using the yellow selector switch 34 on the control board
- Once it has been ascertained by means of appropriate indicator lights on the driver panel that the coupled train is released (once release is completed, the major & minor fault indicators and the paired status light stops flashing), proceed to the destination as instructed by the Train Controller
- When each movement is completed, stop the train, and wait for further instruction from the Train Controller

Note

When towing the faulty train, the MPV should be braked using only the special direct brake with the pushbutton 31

Note

After towing, the automatic couplers can be disconnected from MPV control board using the button 32 or 34. When automatic couplers are locked correctly, the light on the button is on, after pushing the button, the light should be off signaling that the automatic coupler is correctly disconnected and therefore the MPV can be moved

- Once the entire consist arrived at the destination apply the brakes with pushbutton 31 and parking brake selector 48
- To uncouple the consist, press the uncoupling button on the driver panel (button 32, 33 depending on the fact that the front or rear coupler has been used). The light on the button shall be off
- Check that coupler heads (both mechanical and electrical) are separated and report back to Train Controller
- Release the MPV parking brake through selector 48 and the MPV can then be moved from the faulty train

Towing/Pulling Operations

In pulling operations, the MPV is in the leading end towing/pulling the faulty train in the normal train travel direction.

MPV Operator

You must:

- Make sure you are at the leading end of the entire consist
- Obtain authorization from Train Controller before moving the entire consist
- Understand the route and any imposed speed restrictions
- Operate the MPV at a maximum speed of 10mph
- Observe track conditions and wayside signals while driving
- Maintain communication with the OCC (Train Controller)

Train Operator (faulty train)

Before any movement take place, check that:

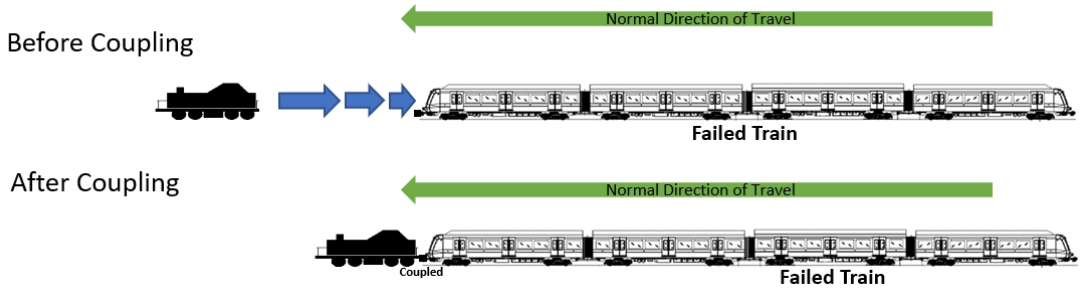
- The faulty train remains in AUTO mode
- No EDRH or other handle is active
- No emergency push-button is active
- All train doors are closed and locked

While the entire consist is moving, you must:

- Monitor the couplers between the MPV and the faulty train
- Stop the entire consist immediately by pressing the emergency brake pushbutton on the EDC if unsafe condition is observed
- Maintain communication with the MPV Operator through the hand portable radio

Note

If the couplers between the MPV and the faulty train has failed, Train Controller shall arrange the MPV to carry out coupling operation at the rear of the faulty train followed by a pushing operation.



Note

During pulling operations, the Train Operator (faulty train) must remain in the leading end of the faulty train in the direction of travel and be ready to activate EB on the EDC if required.

Note

During the pushing or pulling operations, any person can stop the coupled train if it is not safe. On instruction to stop the coupled train, the person who is in the position to apply emergency brake must do so immediately. The braking must remain until the reason for stopping has been resolved.

Pushing Operations

In pushing operations, the MPV is at the rear of the faulty train. The Train Operator (faulty train) must be positioned in the leading end of entire consist to observe the track condition and to relay to the MPV Operator. The Train Operator (faulty train) also stand ready to apply the emergency brake on the EDC.

MPV Operator

You must:

- Make sure the faulty train is in front of you (the MPV)
- Obtain authorization from Train Controller prior to propelling the entire consist forward
- Understand the route and any imposed speed restrictions
- Operate the MPV at a maximum speed of 10mph
- Maintain communication with the Train Operator (faulty train) who will relay the track conditions to you along the way
- Operate the entire consist based on the information being relayed from the Train Operator (faulty train) who is standing at the leading end of the entire consist and communicating with the Train Controller in OCC

Train Operator (faulty train)

Before any movement take place, check that:

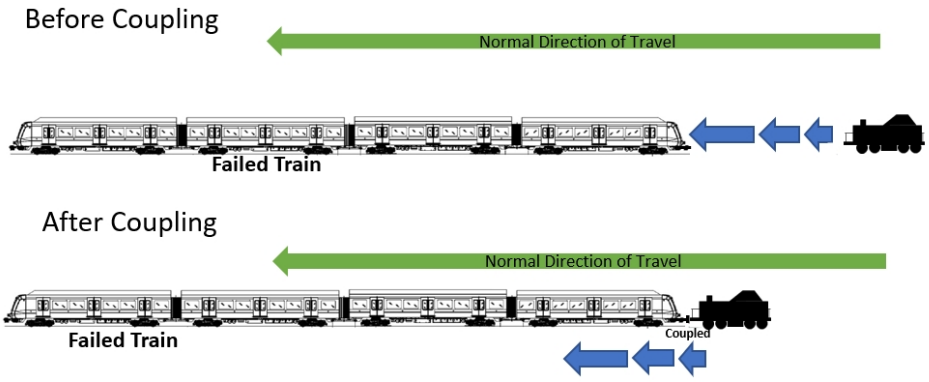
- The faulty train remains in AUTO mode
- No EDRH or other handle is active
- No emergency push-button is active
- All train doors are closed and locked

While the entire consist is moving, you must:

- Observe the track condition and give driving instructions to MPV Operator
- Stop the entire consist immediately by pressing the emergency brake pushbutton on the EDC if unsafe condition is observed
- Maintain communication with the MPV Operator through the hand portable radio

Note

If the couplers between the MPV and the faulty train has failed or pushing operation cannot be carried out, Train Controller shall arrange the MPV to carry out coupling operation at the front of the faulty train followed by a pulling operation.



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