

ERL MAINTENANCE SUPPORT SDN BHD

Co. Reg. No. 199901023674 (498574-T)








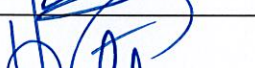

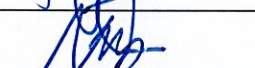
ROLLING STOCK DEPARTMENT

**RE-RAILING OF VEHICLE
PROCEDURE**

Ref. No. G00.OMR.M15880.NG.0001.D

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Release

Released:	Thomas Baake	Chief Executive Officer	15/3/21	
Acknowledged:	Sukhbir Singh	Safety & Security	11/03/21	
Acknowledged:	James Boudville	Operations	10.3.21	
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Author:	Norazman	Rolling Stock	22.2.21	
	Name	Dept.	Date	Signature

Amendments or additions to this procedure must be indicated with a vertical black line in the adjacent left margin.

Change Record and Configuration Control

D	19-Feb-21	Overall revision due to department reshuffled and updated to new template.	Norazman
C	15-Aug-14	Editing name of Rescue and Re-Railing Team, Job descriptions,	Azerul Fahmi
B	20-Sep-13	Overall content are revised and the title also has been changed from Incident Procedure - Rerailing of Vehicle to Re-railing of Vehicle Procedure	Mohd Jamil
A	6 Nov 02	NEW	Amiruddin Maaris
Revision	Date	Modification	Name

Planning Of Changes Reference For Revision: G00.OMR.M15880.NG.0001.D					
Issues To Consider	Checked (Please mark X)				Remarks
1) Are there any negative impact?	YES		NO	X	
2) Will the integrity of QEMS be affected?	YES		NO	X	
3) Resources available?	YES	X	NO		
4) Allocation or relocation of responsibilities and authorities required?	YES		NO	X	

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1 Purpose

The purpose of this procedure is as guideline for;

- Safely and professionally carry out the re-railing of rail mounted vehicles, which inclusive the passenger rolling stock, locomotive and other track bound vehicles on the Express Rail Link System
- Upon request, providing support and assistance to the Emergency Services in any railway related emergency incident
- Upon request, providing re-railing service, support and assistance to other railway operators

2 Scope, Distribution & Access

The scope of this procedure is applicable and shall be executed without any failure, whenever the Re-railing Team is summoned to attend any derailment incident within the Express Rail Link system.

If called to other railway systems, the principles of this procedure shall be followed, with consideration of further advice, assistance and support to be obtained from the respective railway operator.

3 Abbreviation and Definition

E-MAS	ERL Maintenance Support Sdn. Bhd. (Co. Reg. No. 199901023674 (498574-T))
ERL	Express Rail Link
HOD	Head of Department
OCC	Operation Control Center
PICOP	Person In Charge of Possession
PICOW	Person In Charge of Work
RST	Rolling Stock Department
RST Mgt Team	Management team with it members comprising of HoD, Assistant Manager, Engineer, Technical Executive and Supervisor.
SAS	Safety And Security Department
SPYTL	Syarikat Pembinaan Yeoh Tiong Lay
*	Refer to the latest version

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4 Safety

The safety of staff and others is the first responsibility of all persons involved in any recovery operation.

The operation of re-railing is often carried out in difficult circumstances, therefore only trained personnel shall be assigned.

No actions shall be undertaken which will expose any person to the possibility of injury. For every action that is to take place, the risks have to be assessed and all necessary precautions shall be taken before work commencement.

If in DOUBT, DO NOTHING until advice is obtained.

4.1 Personnel Protection Equipment

- All persons who walk or work in or near the structural gauge (2.5 meter from center of track outwards) shall wear High Visibly Vest
- Safety shoe shall be worn
- Safety Helmet or Bump Cap shall be worn when working under the cranes or vehicle
- Eye protection shall be worn when cutting, grinding, chipping, burning and welding equipment
- Ear protection shall be worn when the vicinity of noisy equipment
- Glove shall be worn when handling Hydraulic Jacks, Wooden Packing, Wires, Ropes and etc.

4.2 Handling the injured or deceased (Human or animal blood, fluid and tissues)

All body secretions and excretions from acute cases of infection or carries of Hepatitis B virus have been shown to contain Hepatitis B antigen (HBsAG), including blood, urine, saliva, sweat, tears, breast milk, synovial fluid, semen and vaginal secretions.

The main risk arises from contamination either via cuts and abrasions.

The transfer of infection by airborne route cannot be entirely ruled out; therefore, appropriate work practices shall be followed.

4.2.1 Appropriate Work Practices

Disposable gloves should be worn when there is a possibility of the hands becoming contaminated with blood, body fluids or other tissue.

There must be no eating, drinking, smoking, application of cosmetics, or storage of food. Hand contact with mucosal surfaces, such as may occur by rubbing the eyes, picking the nose etc, shall be avoided.

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Staffs with open wounds, cuts, abrasions or other lesion on the hands should not be permitted to participate.

The hands must be washed with disinfectant immediately if they become contaminated. If there is a risk of material being splashed, eye protection should be worn. Consideration should be given to the advisability of wearing a full-face safety visor.

Any person whose own skin comes into contact with human or animal blood, fluids or tissue should seek medical advice.

**Source of Information:
Safety Services of Cardiff University, Wales, United Kingdom.**

4.3 Safety for Recovery Equipments usage

Please refer to the Rescue and Re-railing Equipment Training Procedure (ref no G00.OMR.M88200.SH.0001*) for the safe working procedure when using below equipments.

- Hydraulic Jacks, its Controller and its Accessories
- Hydraulic Pumps
- Bridge
- Skates
- Lighting Sets
- Burning or Cutting Tools/Equipments
- Others

The Operation and Maintenance Manual of the respective equipments can be found in its respective folders and files, please refer to Matrix5\rst\RST O&M Manuals\DWE Manuals\80000\Depot Workshop Equipment.

**CAUTION:
Always comply with the limits of each Equipment and Tools.
Always use correct method of lifting heavy items**

5 Management of Derailment

In order to ensure all actions taken during the derailment incident are managed properly, the management of derailment is established as in the sub section as follow. All parties have to follow the guideline accordingly.

5.1 Incident Management

The management of incidents is governed by the following procedures:

- Emergency Response Plan Incorporated with Incident Command System Reference no: G00.OMZ.M11451.CB.0001*
- Actions during Service Disruption, Incident and Accident. Reference no: G00.OMO.M11150.CB.1002*

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- Incident Management. Reference no: G00.OMO.M15880.NG.0001*

In summary, the Incident Commander at the OCC, controls the whole recovery operation. In addition, at the incident site, the Operation Chief and personnel from SAS manage the safety, security, coordination and support for the recovery operation to take place smoothly.

5.2 Recovery/Re-railing Management

The Re-railing Equipment is managed on site by a Recovery Supervisor, who is from the RST Department. He/she is the authorized person to manage the recovery actions.

The Recovery Supervisor will work under the direction of the Operation Chief who will be the sole contact person to communicate and update the work progress to the Incident Commander in the OCC. The Recovery Supervisor throughout the incident recovery process will be giving updates on progress and estimates on completion regularly as required by the Operation Chief.

The Recovery Supervisor will work according to his given training on recovery processes. He/she will be the only person authorized to issue directions to the staff involved in the recovery or the re-railing of the track vehicle.

All actions during recovery are to be carried out in a manner that is safe and will prevent or minimize further damage.

The lifting of vehicles is to be done at the vehicle lifting points only. Lifting at other points requires authorization of the owner.

5.3 Person In Charge of Work (PICOW)

The Recovery Supervisor is to act as PICOW for the re-railing activity.

The protection (possession) of the work area and isolation of the 25kv overhead line is arranged by the Person In Charge of Possession (PICOP) and subsequently conduct a briefing to the PICOW and ALL staff working on the site.

All staff that are involved in the recovery process shall not commence any work until all safety arrangements such as isolation of 25kv, slow movement of trains on the adjacent track, provision of Look Out Man and etc, have been made and all staffs have been briefed on the arrangements.

The PICOP will confirm if it is safe to start work.

If new staffs arrive on site, they shall be required to be briefed by the PICOW before being allowed to commence work.

If the PICOW leaves site, a new PICOW selected among the Recovery Team shall be appointed. He/she will require to be briefed by the Operation Chief.

5.4 Look Out Man

Refer to Procedure for Works Within Structural Gauge & Clearance Gauge (G00.OMO.M15631.NP.1001*) and as shown in Diagram 1 - Location of Look Out Man.

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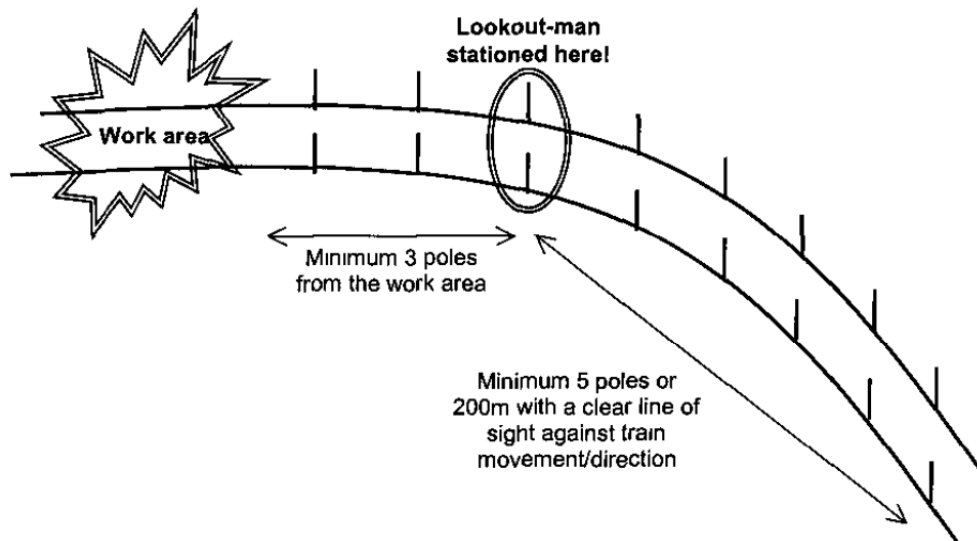


Diagram 1: Location of Look Out Man

The Look Out Man shall be appointed to observe any coming train/vehicle and inform the PICOW accordingly.

The Look Out Man is to be positioned on both directions as below;

- Minimum 3 poles from the work area
- Minimum 5 poles or 200m with a clear line of sight against train movement/direction

He/she will be equipped with portable radio for easy communication with PICOW. The portable radio shall always be set to the Operation radio channel.

5.5 Selection and Training of Recovery Staff

The selection of Recovery Staff will be made from any department within E-MAS. However, priority shall be given to the RST staff due to the familiarity of the track vehicles as well as on the rescue and re-railing equipments and machineries.

5.5.1 Medically Fit

The Recovery Staff will be required to be physically fit for full mobility. The RST Head of Department is responsible to update the Recovery Staff name list, with unfit staff names to be removed from the list.

5.5.2 Staff not to be engaged

The Recovery Staff shall not be from those job scopes that their absence will cause disruption to the day to day operational of the railway system i.e. example is the Train Driver.

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5.5.3 On Call

The selected and trained Recovery Staff will be on-call to attend incident. The group of trained staff will be greater than the number required to attend the incident. However, all the Recovery Staff are to be on stand-by mode and therefore are on on-call mode.

The group of recovery staff under RST department also can be known as Rescue and Re-Railing Team (RRRT). The job description of rescue and re-railing team can be refer under:

- Job description for Rescue and Re-Railing team Leader
(G00.OMH.M11120.ZJ.1163.*)
- Job description for Rescue and Re-Railing team Trainer/backup leader
(G00.OMH.M11120.ZJ.1165.*)
- Job description for Rescue and Re-Railing team Support
(G00.OMH.M11120.ZJ.1164.*)

Each trained staffs shall provide the contact detail, which they could be contactable at any time of the day. RST Head of Department is responsible to update the Rescue and Re-Railing Staff name list.

Refer to section 5.9.2 for the Recovery Staff (Rescue and Re-Railing Team member) name list.

5.5.4 Special Skills

The group of Rescue and Re-Railing Team shall include those with special and particular skill such as Oxy Cutting, Under-frame Equipments and Bogie Assembly/Disassembly.

5.5.5 Special Trainings

- Only selected Recovery Staff will be trained on the role and responsible of PICOW
- All Recovery Staff shall be trained to Track Safety
- All Recovery Staff shall be trained to work under electrified wire
- All Recovery Staff shall be trained to use the Re-railing and Rescue Equipment
- All Recovery Staff shall attend the Re-railing and Rescue training course
- All Recovery Staff shall be trained on Kinetic Lifting Methodology
- All Recovery Staff shall be trained on First Aid

5.6 Maintenance of Rescue and Re-railing Equipments

All equipment is maintained according to the manufacturer's recommendation.

5.6.1 Maintenance Checklist

The list of equipments and its maintenance task description is summaries into a Re-railing Equipment Monthly Checklist with reference no: R00.OMR.M80000.PT.0001.*

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5.6.2 Maintenance Interval

The inspection is to be carrying out at monthly interval.

5.6.3 Reporting of Defective Equipment

Any equipment or its accessories that was found in unsatisfactory working condition during maintenance shall be labeled and sent out for repair. All of the Rescue and Re-Railing Team and the RST Mgt Team shall be notified.

5.6.4 Compulsory Conditions

Before use or testing of the Equipments, it is compulsory for the Equipment's maintainers and/or the Rescue and Re-Railing Team members, to check all Equipments for completeness and is in good working condition.

The Equipments shall be cleaned after each usage. Special care and cleanliness shall be emphasizing on the hydraulic hoses and connections.

Before keeping the Equipments into the Rescue and Re-railing Container, all the Hydraulic Jacks shall be in the fully retracted position.

The Rams of the Hydraulic Jacks must be handled with care and protected against scratches and dents.

Any defects found during the use of the Equipments i.e. during recovery of incident shall be reported to the maintainer at the first opportunity. The Rescue and Re-Railing Team Leader shall also notify the HOD for his/her further follow up concerning repair or buy new option.

5.7 Exercises

As derailments are not an everyday occurrence, simulated exercises will be planned and executed once in a calendar year. The exercise will simulate a full scale or partially re-railing operation and may be done with the involvement of other E-MAS Departments or with participations by other outside (of E-MAS) parties.

5.8 Calls Out

All calls out shall be initiated by the OCC by contacting all the related parties, which includes (but not exhausted to):

- E-MAS General Management and the HODs related to the incident
- On-duty RST Shift Supervisor
- The SPYTL Trackwork Management
- The Ambulance services, BOMBA and Police, if required

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5.9 Actions by RST Shift Supervisor

Specific to the scope of this procedure, the following paragraph will only touch the actions and communications by the RST Shift Supervisor with emphasize on loading of Equipments, movement to incident site and participation of Rescue and Re-Railing Team.

5.9.1 Loading of Equipments

Upon receiving the incident notification by the OCC, the RST Shift Supervisor will arrange the loading of Equipment's Containers onto the flat wagon.

The RST Shift Supervisor, in conjunction with OCC will arrange the provision and marshalling of the locomotive (if required).

5.9.2 Calling the Rescue and Re-Railing Team Members

The RST Shift Supervisor will evaluate the availability of on-duty persons trained in the use of Re-railing and Rescue Equipments, and determine whether additional staffs shall be brought in. If required, the additional staff will be contacted by the RST Shift Supervisor.

The Rescue and Re-railing Team name list, reference no: R00.OMR.M10100.BN.1001* is pasted on the notice board inside the Foremen Room, and its softcopy is available in EDMS and RST Portal.

In parallel, the RST Shift Supervisor shall call the RST HOD (or his/her delegate) and provides update on manpower and readiness to Incident Site.

In the event of staffs have to work extended working hours, the Shift Supervisor shall make the necessary relief arrangements, as and when requested by the Recovery Supervisor.

5.9.3 Equipments movement to Incident Sites

The Equipment shall leave the Depot as per the OCC instruction, with or without a full team of trained persons. Rescue and Re-Railing Team Member, who have missed the rescue train that is Equipment loaded, will have to travel to the incident site by any practical means available.

5.10 Use of Equipments for Re-railing

The ERL supplied Equipments shall be used within the limits and restrictions, supplied by the manufacturer. After the recovery operation is completed, the Equipments shall be returned back to Depot, cleaned, checked, repaired if necessary and to be kept back into its dedicated storage rack in the Container.

If additional equipment is required, the request shall be passed to the Operation Chief to arrange.

Typical additional equipment is Crane, Lifting Air Bag, Earth Movement Vehicle, Specialized – cutting tools and etc.

The use of above exemplified equipments shall be in accordance with the training of the Rescue and Re-railing Equipment.

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If the Rescue and Re-Railing team is not experienced or certified in its use/supervision, the supplier shall be required to provide an operator or supervision.

5.11 Movement of re-railed vehicle(s)

The Recovery Supervisor will inspect the derailed vehicle(s) and specify the condition of movement of the vehicle from site.

In the event that the Recovery Supervisor is unable to provide a sound judgment, further advice will be sought from the RST HOD (of his delegate) or from the General Management.

Base from his judgment, the Recovery Supervisor will assign someone from the RST to accompany the vehicle back to depot.

6 Records

Following the recovery of incident, the following reports are to be prepared by the respective personnel.

The SAS will compile all the reports and presented it to the General Management.

The General Management, at his discretion will appoint someone to attend any enquiry as Expert witness, if it is required.

6.1 Rescue and Re-Railing Team Report

The main objective of deploying the Rescue and Re-Railing Team to incident site is to re-rail the derailed vehicle and to perform rescue mission (if required). Hence, the following information will be recorded by the Recovery Supervisor:

- Call Out times
- Time of attendance and start/finish of the various recovery activities
- Vehicle involved
- Rescue and Re-Railing Team name list
- ERL supplied Equipments used
- Other Equipments (e.g. cranes) that has to be used
- Damage to recovery Equipments, of difficulties with the use
- Damage caused by the incident
- Possible cause of incident
- Any significant information not covered by above

6.2 Operation Chief Report

The main objective of deploying the Operation Chief at site is to manage the incident site and coordinate with other related parties, so that recovery works could be executed smoothly and the Trackwork or other track bound system is restored so that the track could be open for revenue services.

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The Operation Chief will record the information regarding the incident in according with Incident Management Procedure, G00.OMO.15880.NG.0001.*

Appendices