

#123371

ERL MAINTENANCE SUPPORT SDN BHD

(Company No. 498574-T)



SAFETY & SECURITY DEPARTMENT

OPERATIONAL SAFETY PROCEDURE

Ref. No. G00.OMZ.M15400.DS.1070.A

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1 Purpose

This working procedure is issued to provide general guidance for Operational Safety (OS) personnel to perform their duties. It also serves as general information for the entire organization.

2 Scope, Distribution & Access

The procedure will cover all aspects of operational safety inspection and surveillance audit requirements.

The procedure shall be made available to relevant parties through EDMS central record depository and shall be accessible, read and understood by all Operational Safety staff.

3 Procedure

Operations Safety's work focuses on operations safety issues in Operations Department, Maintenance Departments and third parties when working on or near the tracks / structural gauge. The activities are further described in each category.

3.1 Operational Safety Surveillance

The OS unit would focus on the safety and quality conscious cultures and activities. The main activities are the safety surveillance and awareness, providing ideas and suggestion, carrying out audits from time to time and have a close interview with all operational staffs in order to have a 360 degree approaches to safety.

All findings and reports will be documented, profiled and forwarded to the relevant parties for further action, whichever applied.

The activities above are carried out at a predetermined interval and shall be followed up to ensure its effectiveness.

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3.1.1 Scope: Track Possession Management & Activities

The safety surveillance shall cover all safety related sub-procedures available and applicable in the Procedures:-

3.1.1.1 Procedure for Work Within Structural & Clearance Gauge¹

- i. Management of track possession request.
 - a. Planned safety measures for protection of work site.
- ii. Duties and responsibilities of Person In Charge of Possession (PICOP).
- iii. Duties and responsibilities of Lookout-man.
- iv. Structural gauge and clearance gauge, opening and closing of track possession activities.
- v. Radio communication principles, inclusive fundamental of communications between PICOP/Lookout-man and OCC.
- vi. Signalling principles, inclusive of procedures for handsignal and reading of turnout.
- vii. Fundamental and understanding of Five Electrical Safety rules.
- viii. Application and dismantling of earthing devices.

3.1.2 Scope: Operations Procedure Manuals

The safety surveillance shall cover all safety related sub-procedures available and applicable in the Procedures:-

3.1.2.1 Procedure for Communications & Signalbook¹

- i. Radio check and test call requirements.
- ii. Conduct rules, the sequences of communications.
- iii. Verbal approval to proceed & on sight and under caution.
- iv. Type of communication required for pushing of trains.
- v. Communication for Permit to Work.
- vi. Emergency call.
- vii. Principle and type of signaling.
- viii. Lookout-man.
- ix. Signboards, markers and notices.

¹ Refer to Appendices for document reference number.

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3.1.2.2 Procedure Manual for Train Drivers¹

- i. Duties and responsibilities of train driver.
- ii. Person/s in the structural gauge.
- iii. Verbal approval to proceed & on sight and under caution.
- iv. Work within structural and clearance gauge.
- v. Speed restriction; implementation and revocation.
- vi. Safety related procedures in degraded operations; inclusive pulling and pushing of train, signaling and train equipment related failure and irregularities
- vii. Safety related procedures in emergency operations.
- viii. Operations instruction related to operational safety procedures.

3.1.2.3 Operations Control Center Manual¹

- i. Duties and responsibilities of Controllers.
- ii. Switching procedure & understanding of SCADA.
- iii. Verbal approval to proceed & on sight and under caution.
- iv. Work within structural and clearance gauge.
- v. Speed restriction; implementation and revocation.
- vi. Safety related procedures during operational irregularities.
- vii. Safety related procedures during degraded and emergency operations.
- viii. Operations instruction related to operational safety procedures.

3.1.2.4 Procedure Manual for Station Supervisor¹

- i. Duties and responsibilities of Station Supervisors.
- ii. Inspection during and after revenue hours.
- iii. Unauthorized person in station premises.
- iv. Response to overcrowding.
- v. Work within structural and clearance gauge.
- vi. Safety related procedures in degraded operations.
- vii. Safety related procedures in emergency operations.
- viii. Operations instruction related to operational safety procedures.

¹ Refer to Appendices for document reference number.

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3.1.3 Scope: Maintenance Procedure Manual

The safety surveillance shall cover all safety related sub-procedures available and applicable in the Procedures:-

3.1.3.1 Train/Track Bound Vehicle Movement into & Out of Work Area within Depot¹

- i. Responsibilities of management of train/track bound vehicle movement into & out of work area within depot.
- ii. Movement requests into & out of track 9, 10, 11 and 12.
- iii. Requesting and releasing train to/from the UFWL, spray cabin and other areas without 25kV OCL line.
- iv. Coupling and uncoupling procedure within depot area.
- v. Train maintenance at stabling yard.

3.1.3.2 Protection of Staff Working in the Workshop¹

- i. Protection required for rail vehicle being worked on.
- ii. Requirement for protection of work on track, equipment, pit.
- iii. Isolation of the 25kV overhead catenary line.
- iv. Protection of workshop entrances (light and heavy maintenance).

3.1.3.3 Track Vehicle Operator¹

- i. Radio check and test call requirements.
- ii. Conduct rules, the sequences of communications.
- iii. Type of communication required for pushing of trains.
- iv. Verbal approval to proceed & on sight and under caution.
- v. Principle and type of signaling.
- vi. Leaving and entering depot.
- vii. Work within structural and clearance gauge.
- viii. Safety related procedures in degraded operations; inclusive pulling and pushing of train, signaling and train equipment related failure and irregularities
- ix. Safety related procedures in emergency operations.

¹ Refer to appendices for document reference number

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3.2 Quality Surveillance Activities and Working Hours

In order to ensure the quality surveillance is covering all sections and as much as possible, following schedule and guideline to be referred:

Day	Covering section
Monday	Operations Department (OCC, station and train operations)
Tuesday	
Wednesday	Maintenance and 3 rd parties
Thursday	Track possession management and activities
Friday	
Anytime	Special instructions and tasks

Normal working hours shall be observed accordingly as stipulated in Employee Handbook², however; night duty is required once a month for safety arrangement check; callback and working on weekend and public holiday may be required as and when required in accordance to Shift Procedure³.

Note: All activities of the OS will usually follow a prepared timetable that consists of other responsibilities and tasks such as being a committee member or a Project Manager of some projects or tasks.

3.3 Reviewing Manuals

In transportation industry the operating manuals are living documents. Procedures might change due to new technology; changes of facilities, requirements, working format and etc. Therefore the manuals should be reviewed annually and if it is required, OS unit will respond by submitting suggestions and recommendations, if applicable.

² Refer to appendices for document reference number.

³ Refer to appendices for document reference number.

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4 Appendices

The references to be referred are the manuals that are used by the respective section. The manuals or procedures are as table below:

4.1 Documents / Procedures / Manuals

No	Titles	Doc Number
1.	Glossary	G00.OMO.M11150.CZ.*
2.	Incident Management	G00.OMO.M15880.NG.*
3.	Procedure Manual for Works Within Structural and Clearance Gauge	G00.OMO.M15631.NP.*
4.	Operations Procedure Manual for OCC	G00.OMO.M15111.NA.*
5.	Operations Procedure Manual for Train Drivers	G00.OMO.M15113.NA.*
6.	Operations Procedure Manual for Stations	G00.OMO.M15112.NA.*
7.	Procedure for Communications and Signalbook	G00.OMO.M15114.NA.*
8.	Train/Track Bound Vehicle Movement into & Out of Work Area within Depot	G00.OMR.M11450.DS.*
9.	Protection of Staff Working in the Workshop	D00.OMR.M15881.BT.*
10.	Track Vehicle Operator	G00.OMO.M10580.SG.*
11.	Employee Handbook	G00.OMH.M11750.ZG.*
12.	Shift Procedure	G00.OMH.M11750.ZP.*

4.2 Forms & Checklist

No	Titles	Doc Number
1.	Operational Safety Audit Checklist	G00.OMZ.M15400.DQ.*

OPERATIONAL SAFETY AUDIT CHECKLIST

No	Procedures	Relevant Clauses	Remarks	
1	Procedure for Work Within Structural and Clearance Gauge [G00.OMO.M15631.NP.*]	<ul style="list-style-type: none"> ▪ Management of track possession request. <ul style="list-style-type: none"> • Planned safety measures for protection of work site. 		
		<ul style="list-style-type: none"> ▪ Duties and responsibilities of Person In Charge of Possession (PICOP). 		
		<ul style="list-style-type: none"> ▪ Duties and responsibilities of Lookout-man. 		
		<ul style="list-style-type: none"> ▪ Structural gauge and clearance gauge, opening and closing of track possession activities. 		
		<ul style="list-style-type: none"> ▪ Radio communication principles, inclusive fundamental of communications between PICOP/Lookout-man and OCC. 		
		<ul style="list-style-type: none"> ▪ Signalling principles, inclusive of procedures for handsignal and reading of turnout. 		
		<ul style="list-style-type: none"> ▪ Fundamental and understanding of Five Electrical Safety rules. 		
		<ul style="list-style-type: none"> ▪ Application and dismantling of earthing devices. 		
2	Procedure For Communication & Signalbook [G00.OMO.M115114.NA.0001.*]	<ul style="list-style-type: none"> ▪ Radio check & test call requirements. 		
		<ul style="list-style-type: none"> ▪ Conduct Rules & Principle for Verbal Communications. 		
		<ul style="list-style-type: none"> ▪ Approval To Proceed & on sight and under caution. 		
		<ul style="list-style-type: none"> ▪ Communications for Pushing of Train/Vehicle. 		
		<ul style="list-style-type: none"> ▪ Emergency Call. 		
		<ul style="list-style-type: none"> ▪ Principle and type of signaling & signal aspects. 		
		<ul style="list-style-type: none"> ▪ Lookout-man. 		
		<ul style="list-style-type: none"> ▪ Signboards, markers and notices. 		
3	Procedure Manual For OTD [G00.OMO.M15113.NA.*]	Normal	<ul style="list-style-type: none"> ▪ Duties and responsibilities. 	
			<ul style="list-style-type: none"> ▪ Person/s in structural gauge. 	
			<ul style="list-style-type: none"> ▪ Verbal approval to proceed. 	
			<ul style="list-style-type: none"> ▪ On sight and under caution. 	
			<ul style="list-style-type: none"> ▪ Work within structural and clearance gauge. 	
			<ul style="list-style-type: none"> ▪ Speed restriction, implementation and revocation. 	
			<ul style="list-style-type: none"> ▪ Entering & leaving workshop. 	
		Degraded	<ul style="list-style-type: none"> ▪ Coupling & uncoupling of trains. 	
			<ul style="list-style-type: none"> ▪ Pushing and pulling of trains. 	
			<ul style="list-style-type: none"> ▪ Signalling equipment failures. 	
			<ul style="list-style-type: none"> ▪ Trainborne equipment failures. 	
		Emergency	<ul style="list-style-type: none"> ▪ Evacuation of passengers. 	
			<ul style="list-style-type: none"> ▪ Incident on a train. 	
<ul style="list-style-type: none"> ▪ Derailment. 				
<ul style="list-style-type: none"> ▪ Other incident / accident. 				

OPERATIONAL SAFETY AUDIT CHECKLIST

No	Procedures	Clauses		Remarks
4	Procedure Manual For OCC [G00.OMO.M15111.NA.*]	Normal	▪ Duties and responsibilities.	
			▪ Switching procedure & understanding of SCADA.	
			▪ Verbal approval to proceed.	
			▪ on sight and under caution.	
			▪ Work within structural and clearance gauge.	
		Degraded	▪ Speed restriction, implementation and revocation.	
			▪ Trainborne equipment failures.	
			▪ Coupling & pushing of trains.	
			▪ Detraining & evacuation of passengers.	
			▪ Signalling equipment failures.	
			▪ Traffic Management System failures.	
		Emergency	▪ Operational irregularities.	
			▪ Emergency evacuation.	
▪ Incident on a train.				
▪ Derailment.				
		▪ Other incident / accident.		
4	Procedure Manual For OSS [G00.OMO.M15112.NA.*]	Normal	▪ Duties and responsibilities.	
			▪ Inspection during and after revenue.	
			▪ Unauthorized person in station premises.	
			▪ Response to overcrowding.	
			▪ Work within structural and clearance gauge.	
		Degraded	▪ Turnout failure and ATR activation.	
			▪ Evacuation of passengers.	
			▪ Deadman failure.	
			▪ Stabling of track maintenance vehicles at station.	
		Emergency	▪ Injured person on track.	
			▪ Emergency evacuation.	
			▪ Acting Operations Chief.	
6	Train/Track Bound Vehicle Movement into & Out of Work Area within Depot (G00.OMR.M11450.DS.*)	▪ Responsibilities of management of train/track bound vehicle movement into & out of work area within depot.		
		▪ Movement requests into & out of track 9, 10, 11 and 12		
		▪ Requesting and releasing train to/from the UFWL, spray cabin and other areas without 25kV OCL line.		
		▪ Coupling and uncoupling procedure.		
		▪ Train maintenance at stabling yard.		

OPERATIONAL SAFETY AUDIT CHECKLIST

No	Procedures	Relevant Clauses	Remarks
7	Protection of Staff Working in the Workshop (D00.OMR.M15881.BT.*)	▪ Protection required for rail vehicle being worked on.	
		▪ Requirement for protection of work on track, equipment, pit.	
		▪ Isolation of the 25kV overhead catenary line.	
		▪ Protection of workshop entrances (light and heavy maintenance).	
8	Track Vehicle Operator (G00.OMO.M10580.SG.*)	▪ Radio check and test call requirements.	
		▪ Conduct rules, the sequences of communications.	
		▪ Type of communication required for pushing of trains.	
		▪ Verbal approval to proceed & on sight and under caution.	
		▪ Principle and type of signaling.	
		▪ Leaving and entering depot.	
		▪ Work within structural and clearance gauge.	
		▪ Safety related procedures in degraded operations.	
▪ Safety related procedures in emergency operations.			

Note:

- This checklist is to be read together with Operational Safety Procedure (G00.OMZ.M15400.DS.1070.*) and the relevant Operations and Maintenance procedures as stipulated above.
- Questionnaires shall not limit to the listed items above, additional questionnaires may be required.
- Additional questionnaires shall be in accordance to the relevant procedures and to be documented in REMARKS section for references.
- All comments and feedbacks are to be recorded in REMARKS section.

REMARKS

Audited by:

Azrin Lazim

Date:

Auditee:

Name:

Position/Dept:

Date: