

Moorebank Precinct West Stage 2 Proposal Response to Submissions

Appendix K: Best Practice Review



SIMTA

SYDNEY INTERMODAL TERMINAL ALLIANCE

Part 4, Division 4.1, State Significant
Development

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To Nathan Cairney (Tactical Group)
From Alexandra Hopkins (Arcadis)
Copy to Steve Ryan (Tactical Group), Ronan Kellaghan (Ramboll Environ), Nic Hall (Wilkinson Murray), Claire Vahtra (Arcadis), Westley Owers (Arcadis)
Subject MPW Stage 2 – Best Practice Review

1 INTRODUCTION

1.1 Background

Recent comments raised by the Environmental Protection Agency (EPA) in their submission (dated 25 November 2016) for the MPW Stage 2 Proposal (SSD 7709) (the Proposal) identify the need for greater clarity to be provided and consideration of applying 'best practice' for the Proposal. In consideration of these comments and as a result of the greater understanding of the operation of the Proposal, SIMTA has investigated the opportunity for the implementation of best practice further to that provided in the Environmental Impact Statement (EIS) (Arcadis, November 2016).

SIMTA notes that the EIS included a detailed assessment of best practice relating to air and noise, including reviews of current best practice, best practice measures applicable to the Proposal and a summary of the recommended best practice measures for the Proposal, as required by the MPW Concept Approval (SSD 5066) and the Secretary's Environmental Assessment Requirements (SEARs) (SSD 7709) (refer to Sections 8, 9 and Appendix O and N of the EIS). The outcomes of this best practice assessment were identified in the mitigation measures for both air and noise (refer to Section 22 of the EIS). The information provided in this reporting has been utilised to guide this technical memorandum.

This technical memorandum provides further information to the EIS reporting and confirms the approach to best practice for the Proposal in the form of updated mitigation measures provided in Section 8 of the RtS.

It is noted that the Proposal seeks approval, amongst other elements, for the construction and operation of a connection to the Rail link (i.e. the Rail link connection). The Proposal would also operate trains on the Rail link. The Rail link is to be constructed as part of MPE Stage 1 (SSD 14-6766). As a result, the Proposal can only potentially impose performance expectations on trains operated under this proposed approval (SSD 7709). Notwithstanding this, consideration has also been given to the controls and mitigation proposed for MPE Stage 1 as part of the pre and post approval documentation.

1.2 Purpose and intent

The key outcome of this technical memorandum is to establish and identify best practice measures for locomotives, wagons, trucks and container handling equipment, which can be implemented for the Proposal to reduce air and noise emissions and maintain the intended operations as identified within the EIS.

2 BEST PRACTICE CONSIDERATIONS

2.1 Definition of best practice

Following consultation with the EPA, and in the absence of a NSW based definition, the definition of ‘available best practice technology’ for the purposes of this best practice review is understood to be Reasonable Emission Control Technology (RECT) applicable to upgrade / repower options which can be implemented on the existing fleet, trucks and container handling equipment to achieve the best achievable emissions performance at the next overhaul. The focus on the existing fleet is based on the fact that very few, if any, new locomotives will operate for the Proposal in initial years.

The term ‘best practice’ implies a degree of pragmatism and cost effectiveness. Decisions with regard to practicability, when assessing best practice, should have regard to technical, logistical and financial considerations and be proportional to the environmental risk.

The definition of ‘available best practice technology’ above, although directly relating to air quality, still has a relevant application to best practice to be implemented for noise. In consideration of this, this definition has formed the basis for both the air and noise best practice investigation and commitments.

2.2 Previous (EIS) best practice commitments

The best practice measures for both air and noise were included as mitigation measures and summarised in the EIS for the Proposal. A summary of these mitigation measures is provided in Table 1.

Table 1 Proposal (EIS) – Best practice mitigation measures

No	Mitigation Measure	Implementation stage
2.	Noise	
2E	<p>Best practice noise mitigation measures would be implemented for the operational phase of the Proposal including:</p> <ul style="list-style-type: none"> • Noise monitoring (refer to mitigation measures 2B and 2C) • A gate appointment system would be implemented to minimise truck loading/unloading wait times and resultant queueing. Trucks would be turned away from facility if arriving too early • Truck marshalling lanes would be included to minimise congestion and queueing • The provision of information signs and communication of MPW idle reduction policy. A vehicle booking system, truck marshalling lanes and rejection of trucks that arrive early will be implemented / provided to minimise wait times and queueing. This system will be implemented on commencement of operation. 	Operation
3.	Air Quality	
3C	<p>Best practice air quality mitigation measures would be implemented for the operational phase of the Proposal including:</p> <p>Locomotives</p> <ul style="list-style-type: none"> • Ensure locomotives are well maintained in accordance with the manufacturer’s specification or relevant operational plan. Update 	Operation

No	Mitigation Measure	Implementation stage
	<p>maintenance plans to include a requirement to consider air emissions and where possible improve air emission performance at next overhaul/upgrade (for SIMTA operational fleet)</p> <ul style="list-style-type: none"> • Ultra Low Emitting Switch Locomotives would be considered during the procurement process, having regard to technical, logistical and financial considerations • Anti-idle policy and communication / training for locomotive operators • Unnecessary idling avoided through driver training and site anti-idle policy • Driver training for fuel efficiency. <p>Container Handling</p> <ul style="list-style-type: none"> • New reach stackers to achieve emissions performance equivalent to US EPA Tier 3 / Euro Stage IIIA standards • Unnecessary idling avoided through driver training and site anti-idle policy • Equipment with smoky exhausts (more than 10 seconds) should be stood down for maintenance. <p>Trucks</p> <ul style="list-style-type: none"> • Gate appointment system, truck marshalling lanes and rejection of trucks that arrive early to minimise wait times and queuing • Development of an anti-idle policy and communication through the provision of information signs • Unnecessary idling avoided through driver training and site anti-idle policy • Loading and unloading coordinated to minimise truck trip distances as they travel through site. 	

3 COMMITMENT TO BEST PRACTICE

SIMTA understands that best practice is an on-going process and will progressively consider the opportunity for the implementation of certain aspects of best practice based on their benefits in achieving noise and air emissions standards.

This section provides an outline of SIMTA's commitment to best practice for locomotives, wagons, trucks and container handling equipment for the Proposal.

3.1 Justification

The success of best practice measures is based on their ability to reduce potential impacts that are considered relatively standard for the operation of IMT and warehouse fleet and equipment. Methods undertaken for best practice can be more passive (reviews of existing fleet) or active (new locomotive investments) and should be considered alongside technical, logistical and financial considerations to determine what is reasonable and feasible. On this basis, the assessment of whether all best practice measures are reasonable and feasible must be approached pragmatically and with an understanding of whether their implementation would in fact achieve the intended benefits of noise and air emission reductions, and at what overall cost.

SIMTA is required and committed to operate the Proposal as a non-discriminatory open access terminal. That means the IMT facility could be accessed by any rail operator, such as the Australian Rail Track Corporation (ARTC), within the existing fleet of locomotives used by the industry. Therefore, while SIMTA cannot directly influence the technology used by the existing fleet, they can impose reasonable and feasible performance benchmarks for noise and air emissions for locomotives that enter the IMT facility. It is SIMTA's intention to continuously improve the environmental performance of locomotives which use the IMT facility. This continuous improvement will be based on industry benchmarking to ensure that both a non-discriminatory access arrangement and best practice can be achieved. The benchmarking process will provide reasonable time for a rail operator intending to use the IMT facility to ensure that their fleet meet the standard that will be set by SIMTA as the minimum benchmark, from a published date.

A number of technologies are currently in use, for both retrofitting existing locomotives and new locomotives, to improve their emissions performance, i.e. reduce emissions. This technology is coupled with management practices such as anti-idle policies which further contribute to minimising both noise and air emissions. The existing technology used in locomotives is of importance, however, it is the final emissions standard that is achieved that ultimately provides the benefit and, therefore, is considered the industry benchmark for best practice.

In the preparation of the EIS for the Proposal, SIMTA considered a number of best practice measures for locomotives using the IMT facility. The implementation of these best practice measures was considered on the basis of the definition of best practice, namely:

- Environmental risk – the impacts posed by the Proposal and level of compliance with relevant noise and air criteria
- Reasonable and feasible based on industry fleet – consideration of the best practice technologies which have been installed throughout Australia, the nature of the development, and the need to provide a non-discriminatory access terminal.

Based on the potential environmental impacts of the Proposal, and also the benchmark set by industry standard, SIMTA is committed to implement a best practice process to continue to lift the minimum standard of locomotives using the IMT facility. The process, however, cannot be too rapid to prevent the modal shift from road freight to rail, and will need to take into consideration the existing anticipated locomotive fleet that may use the IMT facility for operations. The monitoring of this fleet will establish suitable benchmarks (from a noise and air quality perspective) for available best practice to drive the continued improvement of the minimum level of locomotive using the IMT facility. The establishment of

a reasonable initial benchmark is critical to ensuring best practice outcomes can be achieved, while not acting as a disincentive to modal shift.

Overall, on the basis of providing a non-discriminatory access terminal, SIMTA will commit to a minimum benchmark for locomotives that is considered current industry best standard. This benchmark will be implemented based on a specified timeframe, which is consistent with industry standard. A review of the existing operational fleet will also be undertaken to further understand the level of compliance with these benchmarks and also to set goals for the on-going review of best practice for the Proposal.

Additionally, SIMTA will commit to a review of all wagons, trucks and container handling equipment regarding best practice within one year of the commencement of operations.

The approach undertaken for best practice below is considered reasonable and feasible, and is considered to achieve the outcomes of best practice.

3.2 Best practice measures

SIMTA understands that best practice is an evolving process however is committed to reasonable and feasible best practice measures for noise and air emissions for locomotives, trucks, wagons and container handling equipment. A summary of these are provided below.

3.2.1 Air emissions

SIMTA commits to restricting locomotives that do not meet the following air emissions standards from entering the IMT facility:

- Existing locomotives – operate with diesel particulate emissions less than or equal to 0.30 grams per kilowatt hour
- New locomotives – operate with diesel particulate emissions less than or equal to 0.27 grams per kilowatt hour.

The timeframe for the implementation of this restriction will be based on either 'AS 7512 Exterior Environment' or, if this standard is not yet in force, within seven years of operation of the IMT facility.

3.2.2 Noise emissions

An Environment Protection Licence (EPL) will be required under the *Protection of the Environment Operations Act 1997* (POEO Act) for the operation of the Rail link as part of the MPE Stage 1 Proposal. Schedule 1, clause 33 of the POEO Act indicates that 'rail systems activities', which includes the Rail link, require an EPL for operations. It is noted that the IMT facility component of the Proposal does not trigger the requirement of an EPL, however as locomotives accessing with IMT facility will use the Rail link, the IMT facility could only accept locomotives that comply with the EPL for the operation of the Rail link as part of the MPE Stage 1 Proposal.

It is anticipated, as is the case for other operational rail lines throughout NSW, that any EPL for the Rail link will be consistent with the requirements of the EPLs for ARTC (EPL 3142), Sydney Trains (EPL 12208) and John Holland Rail (EPL 13421). Best practice noise controls for in-service locomotives would be compliance with these EPLs. As a result, SIMTA proposes to restrict locomotives that do not meet the noise requirements of EPLs 3142 and 12208, from entering the IMT facility. As the EPL 13421 does not include noise limits for 'all service conditions' this is not considered to be suitable.

In summary, SIMTA commits to restricting locomotives that do not meet the noise requirements of EPLs 3142 and 12208 from entering the IMT facility.

The timeframe for the implementation of this restriction will be from day one of operation of the IMT facility.

3.2.3 Reviews

In addition to the above-mentioned air and noise emissions standards, SIMTA commits to a detailed review of the existing locomotive fleet seeking initial access to the terminal prior to operations. This review will develop a matrix for the fleet that intend to use the IMT facility, and compare this fleet to the wider locomotive fleet to identify the current implementation of best practice performance and develop a road map for ongoing review and improvement, in addition to the commitments identified above.

This information will be compiled based on discussions with rail providers, including the Freight on Rail Group and the Freight Rail Operators Environmental Policy Group. It is anticipated that the review will document the following details for locomotives:

- Locomotive Class
- Year manufactured
- Year predicted to retire
- Year of next scheduled overhaul
- Manufacturer
- Model
- Engine
- Traction supplier
- Current emissions performance
- Requirement/demonstration of compliance with NSW Locomotive Noise Limits (ARTC/Sydney Trains EPL).

SIMTA will work with the rail operators using, and intending to use, the IMT facility to achieve available best practice technology.

In addition to the review of the existing locomotive fleet detailed above, SIMTA also commits to a detailed review of the wagons, trucks and container handling equipment to be used on the Proposal site within the first year of operations. This review would also be used to identify opportunities for the implementation of best practice performance and develop a road map for ongoing review and improvement.

3.3 Implementation

The above best practice measures are referenced in the RtS (Section 8), forming the updated mitigation measures that would be implemented during the operation of the Proposal.

The implementation of best practice would be included within the Operational Environmental Management Plan (OEMP) to be prepared for the Proposal as identified in mitigation measure 0C (refer to Section 8 of the RtS). The commitments detailed above would form the basis of the objectives and targets in the OEMP to be implemented. The OEMP would also detail the following:

- Benchmarks for available best practice (as identified in Section 3.2 of this report)
- Procedures and timeframes for reviews of best practice
- How the Proposal would be managed to ensure compliance and the outcomes are achieved.

4 CONCLUSION

This technical memorandum has been prepared in response to recent comments raised by the EPA in their submission (dated 25 November 2016) for the Proposal to identify the need for greater clarity to be provided and consideration of applying 'best practice' for the Proposal. In consideration of these comments, and as a result of the greater understanding of the operation of the Proposal, SIMTA has investigated the opportunity for the implementation of best practice further to that provided in the EIS.

SIMTA is required to operate the IMT facility as a non-discriminatory access terminal. This means the IMT facility can be accessed by any rail operator within the existing fleet of locomotives used by the industry. On this basis, while SIMTA cannot directly control the technology used by the existing fleet, they can influence it through imposition of minimum performance expectations for noise and air emissions for locomotives that enter the IMT facility.

As a result of consultation with the EPA and an understanding of industry best practice, SIMTA has established benchmarks which will be implemented for the Proposal. The best practice benchmarks to be achieved are as follows:

- Air emissions: restricting locomotives, that do not meet the following air emissions standards from entering the IMT facility:
 - Existing locomotives – operate with diesel particulate emissions less than or equal to 0.30 grams per kilowatt hour
 - New locomotives – operate with diesel particulate emissions less than or equal to 0.27 grams per kilowatt hour.

The timeframe for the implementation of this restriction will be based on either 'AS Exterior Environment' or, if this standard is not yet in force, within seven years of operation of the Proposal

- Noise emissions: restricting locomotives, that do not meet the noise requirements of EPLs 3142 and 12208, from entering the IMT facility.

The timeframe for implementation will be from day one of operation of the Proposal.

SIMTA also commits to a detailed review of the existing locomotive fleet, and the wagons, trucks and container handling equipment to be used on the Proposal site within the first year of operations. This review would be used to identify opportunities for the implementation of best practice performance and develop a road map for ongoing review and improvement.

This technical memorandum provides further information to the EIS reporting and confirms the approach to best practice for the Proposal in the form of updated mitigation measures provided in Section 8 of the RtS.