

Pollution Incident Response Management Plan – M5 East

A Transurban Group plan

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Contents

1.	Abbreviations, acronyms and definitions	4
2.	Introduction	5
2.1	Background	5
2.2	Objectives	5
2.3	Description	5
2.4	Incident Notification Information	6
2.5	Testing, Review and Amendment	7
3.	Inventory of Pollutants	7
4.	Roles and Responsibilities	7
5.	Hazards to the Environment and Human Health	7
5.1	Controlling Hazards to the Environment	8
5.2	Controlling Hazards to Human Health	8
5.3	Environmental Pollution Control Equipment	8
5.4	Process to be taken following a Pollution Incident	9
5.5	Regulatory Authorities	10
5.6	Community Stakeholders	10
5.7	Staff Training	10
	Appendix A: Testing Register	11
	Appendix B: Compliance Register	12
	Appendix C: Broader Location Map	13

PIRMP – M5 East

1. Abbreviations, acronyms and definitions

Term or acronym	Description
M5 East	The M5 East motorway is a 10 kilometre motorway connecting the M5 South-West motorway with General Holmes Drive and the Eastern Distributor. The M5 East provides two lanes of carriageway in each direction and includes two four kilometre tunnels and twin 550 metre tunnels under the Cooks River
DECC, DEC, EPA	Department of Environment and Climate Change, Department of Environment and Conservation, Department of Environment and Climate Change and Water (DECCW), Office of Environment and Heritage (OEH) are all previous names of the NSW government department now known as the Environment Protection Authority (EPA)
DNR (DLWC)	Old NSW Department of Natural Resources (formerly Department of Land and Water Conservation). Most responsibilities are now incorporated into Department of Environment, Climate Change.
DPIE	Department of Planning Industry and Environment
HSEMS	Health Safety and Environment Management System
HSE	Health, Safety and Environment
MCoA	Minister's Conditions of Approval
O&M	Operations and Maintenance
ACT	Protection of the Environment Operations Act 1997
OEMP	Operational Environmental Management Plan
OMCS	Operations Motorway Control System
PMCS	Plant Management Control Systems
SWMS	Safe Work Method Statement
TUWCX	Transurban WestConnex
TMCS	Traffic Management Control System
FHEOM	Fulton Hogan Egis - Maintenance Service Provider

PIRMP – M5 East

2. Introduction

2.1 Background

WestConnex Transurban Pty Ltd (WCX TU) holds an Environment Protection Licence (21370) with the NSW Environment Protection Authority (EPA) for one ventilation facility associated with the M5 East. As per the Protection of the Environment Operations Act 1997 (the POEO Act), WCX TU as holder has prepared the following Pollution Incident Response Management Plan (PIRMP) that complies with Part 5.7A of the Protection of the Environment Operations Act 1997 and in-line with Protection of the Environment Operations (General) Regulation 2009 95A (1) that restricts this plan to only cover pollution events from "Road Tunnel Emissions".

If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147 of the POEO Act) is caused or threatened, WCX TU will immediately implement this plan in relation to the activity required by Part 5.7A of the POEO Act. A written copy of this plan is kept at the Motorway Control Centre (46-50 West Botany Street, Arncliffe, NSW 2205), is made available on request by an authorised NSW EPA Officer and publicly at (<https://www.linkt.com.au>)

2.2 Objectives

The objectives of this PIRMP are to:

- Minimise and control the risk of a emission pollution incident at the project by requiring identification of risks and the development of planned actions to minimise those risks.
- Ensure comprehensive and timely communication about an incident to the Environment Protection Authority (EPA) and other relevant government authorities and the community who may be affected by the impacts of an emission pollution incident.

2.3 Description

The road tunnel ventilation facilities work by exploiting the natural mixing of the atmosphere to efficiently disperse air pollutants this results in nearby residents experiencing little, if any, exposure to emissions.

Tunnel ventilation is required to enable the tunnel to operate with low risk and with acceptable air quality at all times. The tunnel ventilation system is part of the overall Plant Monitoring and Control System (PMCS) and consists of:

- Exhaust fans
- Supply fans
- Jet fans mounted throughout the tunnel and ramps
- Shutoff and balancing dampers
- Airflow, pollution and thermal measurement equipment both within the tunnel and at the outlets
- Plant control system
- M5 East Ventilation Stack located within the existing M5E Motorway reserve at 27 Henderson Street, Turrella. (See Figure 1) – the facility serves all traffic within the tunnel

The broader location is shown in Appendix D – Broader Location Map:

PIRMP – M5 East



Figure 1: Turrella Ventilation Stack Facility

2.4 Incident Notification Information

The relevant information about a pollution incident required under S150 of the Protection of the Environment Operations Act 1997 consists of the following:

- (1)
 - a) the time, date, nature, duration and location of the incident,
 - b) the location of the place where pollution is occurring or is likely to occur,
 - c) the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known,
 - d) the circumstances in which the incident occurred (including the cause of the incident, if known,
 - e) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known,
 - f) other information prescribed by the regulations.
- (2) The information required by this section is the information known to the person notifying the incident when the notification is required to be given.
- (3) If the information required to be included in a notice of a pollution incident by subsection (1) (c), (d) or (e) is not known to that person when the initial notification is made but becomes known afterwards, that information must be notified in accordance with section 148 immediately after it becomes known.

PIRMP – M5 East

2.5 Testing, Review and Amendment

The PIRMP will be tested in accordance with the requirements set out in the Protection of the Environment Operations (General) 2009 as follows:

- To ensure that the information included in the plan is accurate and up to date and the plan is capable of being implemented in a workable and effective manner; and
- Any such test is to be carried out:
 - At least once every 12 months; and
 - Within 1 month of any pollution incident occurring

The M5 East as a whole has a number of potential scenarios that may impact the environment; detailed in the *Operational Environmental Management Plan*. PIRMP testing will be limited to ventilation facility exceedance scenarios.

In the PIRMP the following details will be recorded on a continuous basis:

- *Review*: Date, version, author and nature of change (Page 2)
- *Test*: Date (tested), description of test, conducted by, date (update) (Appendix A).

3. Inventory of Pollutants

There will be no pollutants kept on the premises for use during operation and maintenance. As per the requirements set out in the Act; there will be no pollutant register detailing pollutant type, maximum quantity and location of potential pollutants appended to the PIRMP.

4. Roles and Responsibilities

As required by the act; the roles and responsibilities are described below of those key individuals who are responsible for activating the plan, managing the response and notifying relevant authorities:

Role	Responsibility	Contact Details (24hr)
M5 East Incident Control Room – TCRO	<ul style="list-style-type: none"> ■ Responsible for managing the response to a pollution incident. ● Responsible for activating the PIRMP. ■ Authorised to notify relevant authorities under section 148 of the POEO Act. 	(02) 8577 3707

5. Hazards to the Environment and Human Health

Due to the licence relating to the scheduled activity ‘Road Tunnel Emissions’ the following hazards related to the environment and human health are exclusively:

- Exceedance of the PM₁₀ particles exceedance limit – ventilation facility
- Exceedance of the NO₂ or NO or both, as NO₂ equivalent exceedance limit – ventilation facility
- Exceedance of the NO₂ exceedance limit – ventilation facility

PIRMP – M5 East

- Exceedance of the CO exceedance limit – ventilation facility Exceedance of the VOC (as n-propane) exceedance limit – ventilation facility

As required under the Act; the likelihood of the abovementioned environmental hazards are detailed in the *Operational Environmental Management Plan*. The Plan is publicly available on the WestConnex Website.

5.1 Controlling Hazards to the Environment

In order to mitigate the abovementioned hazards WCX TU implements constant air monitoring at the ventilation facilities in accordance with the conditions of the EPL. Further physical controls are detailed in *5.3 Environmental Pollution Control Equipment*. Site personnel are also trained in, and implement the following related management plans to control factors that may influence an exceedance with ventilation facility limits:

Document #	Description
Volume 4, chapter 8	<i>Operational Environmental Management Plan</i>

Specifically, in the *OEMP* describes the environmental impact and the mitigation, management and monitoring strategies that are being employed to manage hazards.

5.2 Controlling Hazards to Human Health

To minimise the risk of harm to people at the premises the following measures are implemented as per Transurban minimum requirements:

- All person(s) accessing site are required to wear the appropriate PPE including:
 - Long pants
 - Long sleeved shirt
 - Hard hat
 - High visibility vest
 - Steel capped boots
 - Safety glasses.
- All person(s) are made aware of the PIRMP including notification/response procedures during site induction.
- All personnel are made aware of all site exits and emergency evacuation points.
- The community are to be notified of any changes to works that may affect them, including works outside of normal working hours.

5.3 Environmental Pollution Control Equipment

As per the *OEMP* the tunnel's air quality is managed by the use of a fan circulation system that links to ventilation facility.

The equipment is operated by WCX TU and continuous air quality monitoring is undertaken.

Alarms are sounded at the point where the asset is operating within a set percent of the exceedance limits. The Traffic Control Room is able to adjust the ventilation system to improve the air quality in the tunnel.

PIRMP – M5 East

5.4 Process to be taken following a Pollution Incident

If ventilation facility monitoring shows either a validated or non-validated non-compliance then the following step in *the OEMP* must be followed, as summarised.

→ Notify the DPI&E, EPA and DoH immediately in the event of an exceedance of ventilation stack limits to be followed up with a detailed report to the EPA within 20 working days.

The flowchart in Figure 3 shows the steps in more detail

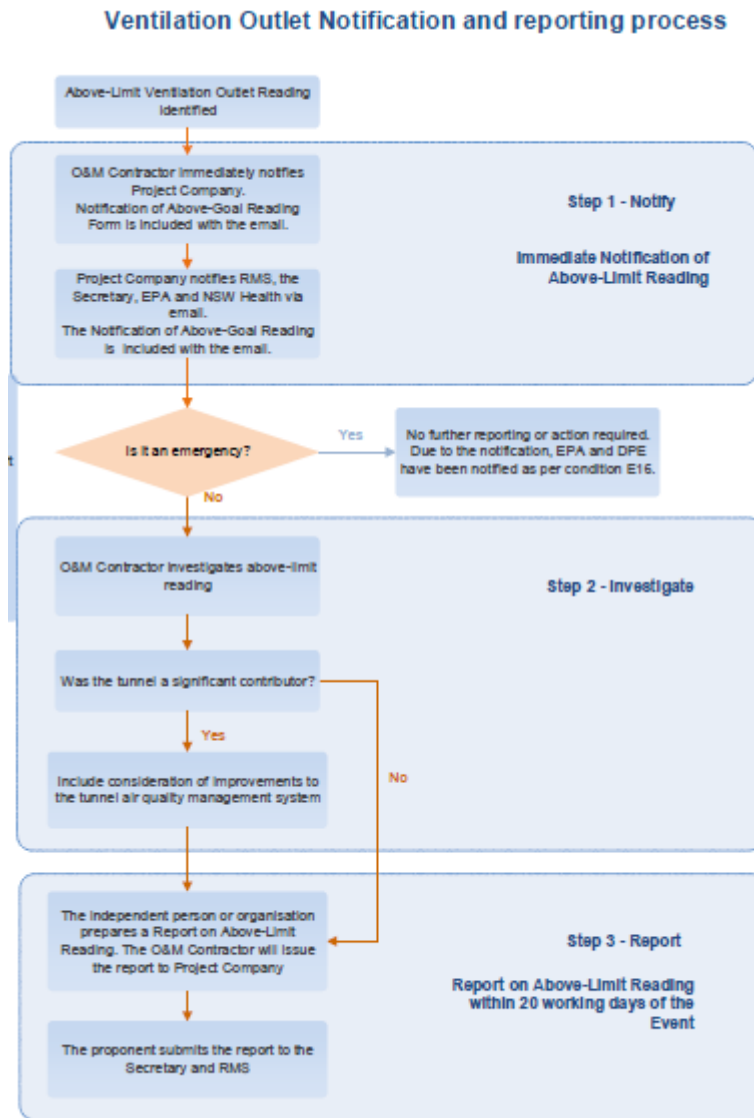


Figure 2 Ventilation Outlet Notification Process

PIRMP – M5 East

5.5 Regulatory Authorities

As above the TCRO or equivalent is responsible for notifying relevant authorities. The current contact details of the relevant authorities under section 148 of the POEO Act include.

Authority	Email	Phone
EPA (NSW)	info@epa.nsw.gov.au	131 555
Health (NSW)	MOH-EHB@health.nsw.gov.au	(02) 9424 5817
DPIE	infrastructure.notifications@planning.nsw.gov.au compliance@planning.nsw.gov.au	
WorkCover NSW	contact@safework.nsw.gov.au	131 050
Fire and Rescue	contact@frnsw.nsw.gov.au	1800 679 737

5.6 Community Stakeholders

The requirements surrounding community consultation and involvement are detailed within *the OEMP* which was required as part of the conditions of approval.

In order to ensure consultation with each community stakeholder is effective, different stakeholders will be notified depending on the severity of the incident and in terms of whether they would be directly affected by the incident.

5.7 Staff Training

All TCROs receive training during the induction process and to ensure that they can effectively implement the PIRMP. Ongoing training ensures that they are able to prevent and respond to exceedances should they occur. Training includes but is not limited to:

- Employee responsibilities and legal obligations in relation to stack exceedances and reporting requirements.
- Identification of site issues that may lead to a stack exceedance.
- Appropriate immediate action to control and contain an incident including provision of contact details of relevant personnel for notification; and
- Staff must be provided with information to reflect the following hierarchy in their response to an environmental incident.

PIRMP – M5 East

Appendix B: Compliance Register

Below describes how the above PIRMP complies with the requirements under Section 3 General requirements for preparing pollution incident response management plans the EPA Guideline (2012):
Preparation of pollution incident response plans:

Requirement	Section of PIRMP
3.3.1 Description and likelihood of hazards [clause 98C(1)(a) and (b)]	5.0 Hazards to the Environment and Human Health
3.3.2 Pre-emptive actions to be taken [clause 98C(1)(c)]	5.1 Controlling Hazards to the Environment 5.2 Controlling Hazards to Human Health
3.3.3 Inventory of pollutants [clause 98C(1)(d) and (e)]	3.0 Inventory of Pollutants
3.3.4 Safety equipment [clause 98C(1)(f)]	5.3 Environmental Pollution Control Equipment
3.3.5 Contact details [clause 98C(1)(g) and (h)]	4.0 Roles and Responsibilities 6.2 Regulatory Authorities
3.3.6 Communicating with neighbours and the local community [clause 98C(1)(i)]	7.0 Community Stakeholders
3.3.7 Minimising harm to persons on the premises [clause 98C(1)(j)]	5.2 Controlling Hazards to Human Health
3.3.8 Maps [clause 98C(1)(k)]	2.3 Description Appendix D: Broader Location Map
3.3.9 Actions to be taken during or immediately after a pollution incident [clause 98C(1)(l)]	5.4 Process to be taken following a Pollution Incident
3.3.10 Staff training [clause 98C(1)(m)]	7.4 Staff Training

PIRMP – M5 East

Appendix C: Broader Location Map



Figure 3 Broader Location Map