



Australian Government
Department of the Environment

Notification of

REFERRAL DECISION – not controlled action if undertaken in a particular manner

Melbourne Metro Rail Project, Victoria (EPBC 2015/7549)

This decision is made under sections 75 and 77A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Proposed action

person named in the referral	Department of Economic Development, Jobs, Transport and Resources (Melbourne Metro Rail Authority) ABN 69 981 208 782
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proposed action	To construct rail tunnels, underground stations, tram and train interchanges and rail tunnel entrances in the Melbourne central business district, Victoria [See EPBC Act referral 2015/7549].
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Referral decision: Not a controlled action if undertaken in a particular manner

status of proposed action	The proposed action is not a controlled action provided it is undertaken in the manner set out in this decision.
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Person authorised to make decision

Name and position	Victoria Press Acting Assistant Secretary Assessments (Queensland, Victoria, Tasmania) and Policy Implementation Branch
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signature

date of decision

22 September 2015

manner in which proposed action must be taken

The following measures must be taken to avoid significant impacts on:

- Commonwealth land (sections 26 & 27A)

To mitigate potential impacts to Commonwealth land, the person taking the action must implement the following vibration monitoring and measuring approach:

- A. Conduct preconstruction dilapidation surveys of the **nearest** Commonwealth Heritage listed structures to the proposed action, including the **Former Guardhouse (B Block)**, to record structural condition and structural integrity prior to **commencement of tunnelling**;
- B. Conduct vibration monitoring at the **commencement of tunnelling** in geological conditions that are similar to those at **Victoria Barracks** in order to quantify the actual tunnel boring machine vibration characteristics (level and frequency) for comparison to the values derived from the **literature** and the **German DIN target**;
- C. Conduct continuous vibration monitoring at the **nearest Victoria Barracks** heritage structures to the proposed action, including the **Former Guardhouse (B Block)**, to assess the actual tunnelling vibrations for acceptability, taking into account both the vibration frequency and condition of structures, until monitoring of vibration at the **Former Guardhouse (B Block)** shows measurements equivalent to preconstruction vibration readings at the **Former Guardhouse (B Block)**;
- D. If monitoring conducted according to Particular Manner C. demonstrates the condition of heritage structures may be degraded as a result of vibration, ground vibration must be reduced by adjusting the advance rate of the tunnel boring machine until monitoring of vibration at the **Former Guardhouse (B Block)** shows consistent measurements equivalent to preconstruction vibration readings at the **Former Guardhouse (B Block)**.

Definitions

Commencement of tunnelling – means the date that the tunnel boring machine is first used in geological conditions that are similar to those at **Victoria Barracks** for the construction of the eastern tunnel.

Former Guardhouse (B Block) – means the Commonwealth Heritage listed building within **Victoria Barracks**.

German DIN target – means the vibration levels below which no impact has been observed on different types of structures as described in *German Standard DIN 41450-Part 3 Structural Vibration Part 3 Effects of Vibration in Structures* (1999).

Nearest – means within a distance of 50 metres from the construction of the closest tunnel.

The literature – means the vibration related references listed at Section 7.1 of the referral form submitted for this project.

Victoria Barracks – means the Commonwealth Heritage listed precinct, comprising the area bounded by St Kilda Road and Wadey, Wells and Coventry Streets, South Melbourne, and including a number of Commonwealth Heritage listed buildings.
