

Motorway tunnel ventilation stacks

The NSW Environment Protection Authority is the lead regulator for air emissions from motorway tunnel ventilation stacks.

Key points

- The EPA requires tunnel operators to meet air quality limits and undertake air quality monitoring from their stacks.
- Tunnel operators will be required to report air emissions on their websites, increasing transparency and community confidence in the way the tunnel stack emissions are regulated.

What is the role of the EPA?

Air emissions from motorway tunnel ventilation stacks are now regulated by the EPA. By 5 March 2020, tunnel operators must hold an environment protection licence issued by the EPA. This new requirement applies to all current and future motorway tunnels with ventilation stacks.

The licences and any associated regulatory actions and decisions are available on the [EPA's public register](#). The licence places strict operating, monitoring and reporting requirements on air emissions from ventilation stacks. The EPA undertakes compliance activities to ensure ventilation stacks are operated according to the licence conditions.

The EPA does not regulate in-tunnel air quality or portal (tunnel entrance or exit) emissions. These are regulated by the Department of Planning, Industry and Environment (DPIE) as part of the conditions of approval for the tunnel, outlined in the approval process.

What is a ventilation stack?

Ventilation stacks remove motor vehicle emissions from within a tunnel so that the tunnel can be used safely by motorists. Modern tunnel ventilation stacks discharge emissions into the atmosphere at sufficient heights to protect the health of the community near the stack.

Air quality monitoring

Air quality monitoring is or will be undertaken for ventilation stack emissions at all operating and future motorway tunnels. Tunnel operators must implement procedures to ensure the accuracy and representativeness of monitoring data.

The monitoring data will be publicly available through tunnel operators' websites.

The monitoring data is also required to be provided to the EPA and will be regularly reviewed.

Pollution studies

Licence conditions for newer tunnels are substantially consistent with the conditions of approval set by DPIE, and available on [DPIE's public register](#).

The Eastern Distributor, Sydney Harbour Tunnel and M5 East Tunnel are older tunnels and do not have stack emission limits in their conditions of approval. The EPA is requiring these tunnel operators to undertake pollution studies to develop appropriate emission limits.

Air quality in and around tunnels

How air quality is managed in motorway tunnels is overseen through conditions issued by DPIE when a tunnel is approved. It varies for each tunnel and is determined by factors such as the:

- length of tunnel
- volume of traffic
- tunnel ventilation system
- technical design and age of the tunnel.

Motor vehicle emissions

Air quality in Sydney is generally good by national and international standards.

While there are increasingly more cars on the road, stricter emission standards and improved fuel quality have resulted in substantial reductions in pollution in the past two decades.

New on-road motor vehicle emission limits are set by the Commonwealth Government via the Australian Design Rules.

However, motor vehicles remain a major source of air pollution in Sydney, contributing to emissions of oxides of nitrogen (NO_x), volatile organic compounds (VOC) and fine particles (PM_{2.5}). You can learn more about air emissions by using the EPA's online tool, [Air Emissions in My Community](#).

The EPA will continue to support initiatives to further reduce emissions at source, and will monitor tunnel and roadside emissions to appropriately manage them.

What are the roles of other NSW Government agencies?

The **Department of Planning, Industry and Environment (DPIE)** regulates the design, construction and operation of motorway tunnels through the planning approval process. Air quality inside operating motorway tunnels and emissions from operating portals (entrances or exits) is regulated by DPIE through project-specific conditions of approval. The EPA provides technical advice to DPIE to inform the approval process.

NSW Health provides advice on managing potential human health risks associated with air pollution, including during the planning process for road tunnel projects, and helps to communicate these risks to the public. NSW Health does not have a regulatory role in the regulation of air emissions in or from motorway tunnels.

Where can I find more information?

More information about the regulation of motorway tunnel ventilation stacks can be found on the EPA website under [Amendment Regulation for scheduled activities](#).

If you have any questions or concerns, call the 24/7 NSW Environment Line on 131 555.

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