

Improving Victoria's Air Quality

Tabled 8 March 2018

VAGO

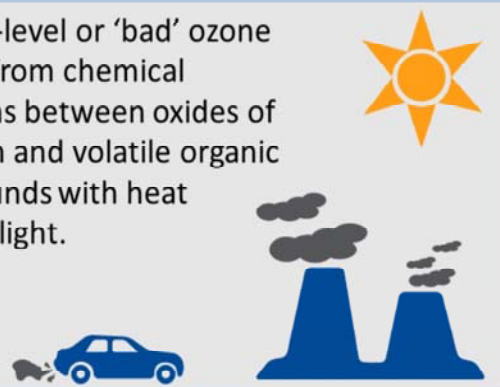
This presentation provides an overview of the Victorian Auditor-General's report Improving Victoria's Air Quality.

Background

Clean air is important for health and wellbeing.

- Strong correlation between poor air quality and ill health
- Ozone and particulate matter (PM) may impair lung and heart functions
- No threshold below which PM has zero health impact

Ground-level or 'bad' ozone results from chemical reactions between oxides of nitrogen and volatile organic compounds with heat and sunlight.



Clean air is important for health and wellbeing. There is a strong correlation between poor air quality and negative health impacts.

The air we breathe can contain ozone and particulate matter (PM) pollutants. These can arise from human sources, such as industrial operations, and from natural processes such as bush fires.

Environment Protection Authority

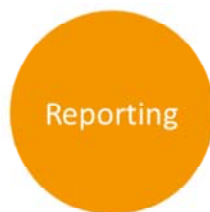


In Victoria, the Environment Protection Authority (EPA) is primarily responsible for monitoring, regulating and reporting on the state's air quality. EPA is subject to a range of legislation that incorporate national standards on ambient air quality.

What we looked at

To determine whether Victoria's air quality meets standards for ozone and PM discharges.

We examined EPA's air quality:



This included an analysis of air quality data collected by EPA from its monitoring stations from 2010 to 2016.

This audit examined whether Victoria's air quality meets the standards for ozone and PM discharges.

We looked at EPA's monitoring, reporting and regulation of air quality.

Who we looked at



The audit looked primarily at EPA's activities relevant to air quality.

We included the Department of Environment, Land, Water and Planning (DELWP) as the agency with portfolio responsibility over the environment.

Brimbank City Council because of significant air pollution issues at the Brooklyn Industrial Precinct.

And the City of Ballarat because of reported air pollution measures it undertook relative to woodfire heating.

Limited air monitoring coverage

EPA's annual air quality monitoring reports state that ambient air quality is generally good



Ambient air quality monitoring limited to parts of Port Phillip and Latrobe regions

No assurance that what is monitored is representative of what is **not** monitored

EPA's annual air quality monitoring reports state that ambient air quality is generally good and within national standards.

This is true for the parts of the Port Phillip and Latrobe Valley regions that EPA monitors.

EPA's limited air monitoring coverage does not provide information on air quality for most of the state, including many parts of metropolitan Melbourne.

The weaknesses we have identified means that EPA is unable to demonstrate that the data it collects and reports provides a representative measure of the air quality likely to be experienced by most Victorian communities.

Weaknesses in reporting

EPA's reporting has errors and data quality issues



- EPA reports ozone and PM standards **met for all seven years**, except 2015 for PM10
 - **Not met** assessments should also have been given to:
 - PM10—2013, 2014 and 2016
 - PM2.5—2016
- Weak data validation

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We also found weaknesses in EPA's reporting on air quality data.

For example, we found errors in EPA's assessments against PM standards, all of which overstated air quality and undermine confidence in EPA's annual air quality monitoring reports.

Basic sample checking showed inconsistencies between EPA's raw data and what has been published. And, EPA's data validation process is not being followed.

Weaknesses in reporting – *continued*

EPA reports annually on ambient air quality

There is limited reporting on campaign and emergency monitoring results



Victorians should be able to access and understand the local air quality conditions that they may be exposed to on a daily basis.

EPA reports annually on ambient air quality. There is no similar regular reporting for data collected from its campaign and emergency monitoring stations.

It is important for Victorians to be able to access and understand the local air quality conditions that they may be exposed to on a daily basis, especially if they live, work and commute near direct sources of air pollution.

Early signs of improvement in air quality regulation

Risk-based approach to regulation—early signs of improvement

- ✓ Licensed Operator Risk Assessment model
- ✓ Program to review major industries
- ✓ Periodic licence reviews
- ✓ New / revised guidance documentation for staff

EPA's regulation of sources of air pollution has begun to improve. It has achieved this through better embedding its risk-based approach into its licensing requirements and developing programs to enhance its compliance efforts—for example, with its major industry assessments and

Continuing challenges



24+ Relevant legislative and policy instruments



Multiple agencies
EPA, shared with DELWP, councils, VicRoads, WorkSafe Victoria, and planning and emergency services



Roles and responsibilities remain unclear and not well understood

The roles and responsibilities of agencies that contribute to air quality management remain unclear and not well understood. Consequently, attempts to address air quality issues have not always been well coordinated and implemented.

Continuing challenges – *continued*

EPA has not kept itself informed and updated on air pollution sources

Last air emissions inventory (2006)

A current inventory is critical for EPA's understanding of air pollution sources

For information on air discharges, EPA relies primarily on:

- community complaints
- industrial operators' reports

EPA needs to proactively get information on:

- industrial operators' air discharges
- air quality at and around boundaries of industrial operators

EPA needs to keep pace with information on air pollution sources.

EPA last completed an air emissions inventory in 2006. This is inconsistent with EPA's approach to use science to inform its activities.

EPA's primary reliance on the community and industrial operators to know about air discharges is not sound. EPA needs to consider how it could proactively obtain and validate information on air discharges from industrial operators.

Recommendations

4 Recommendations for EPA

- Expand its air monitoring network
- Improve its reporting on air quality
- Expand and update its knowledge-base on air quality
- Work with councils to address air quality issues at the Brooklyn Industrial Precinct

1 Recommendation for EPA and DELWP

- Clarify roles and responsibilities of relevant Victorian government agencies and develop protocols to ensure accountabilities are understood and coordination is achieved

We made four recommendations for EPA, and one further recommendation for EPA and the Department of Environment, Land, Water and Planning.

EPA accepted all five recommendations and provided an action plan on how it will implement them.

DELWP accepted the recommendation addressed to it, noting that it will also support EPA in its acquittal of the remaining recommendations.

For further information, please view the full report on our website:
www.audit.vic.gov.au

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