

Latrobe Valley coal mine fires

health

Community information February 2014

This information has been developed by the Department of Health in response to community questions and concerns about smoke from the current brown coal fires in the Latrobe Valley, south east of Melbourne.

Fires are currently affecting two of the three coal mines associated with the Hazelwood power station and the Yallourn power station.

Local air quality in the Latrobe Valley is currently being impacted by smoke from surrounding summer fires and smoke from the burning brown coal.

What is brown coal?

Coal is formed from the build up of layers of vegetation over thousands of years. There are different types of coal, including brown coal from the Latrobe Valley deposits and black coal from interstate locations.

Compared to black coal, brown coal contains more water. It also produces less waste ash (ie visible particles) and lower levels of combustion products containing sulfur or nitrogen in the air.

What is in the smoke?

Smoke is a mixture of different-sized particles, water and gases including carbon monoxide, carbon dioxide and nitrogen oxides.

The larger particles are visible to the eye and contribute to the visible smoke haze.

Finer microscopic particles and gases that are not visible to the eye can be breathed deep into the lungs and can cause health effects.

Whether someone develops smoke-related health effects depends on a number of factors including:

- levels of fine particles and other gases in the smoke;

- known effects to the body from breathing in these levels;
- how long a person is exposed;
- the person's individual susceptibility (ie do they have an existing heart or lung condition?; are they very young or elderly?) and
- the level of exercise or physical activity.

How does bushfire smoke and brown coal fire smoke differ?

Carbon monoxide levels in smoke from brown coal fires and smoke from summer fires are the same.

The only difference is that smoke from the brown coal fires settles within the coal mine pits. Therefore people working in the pit fire area may be exposed to higher levels of smoke, including carbon monoxide.

Those fighting the brown coal fires:

For firefighters working at the face of the active fires inside the coal pits, the main smoke component of health concern is carbon monoxide.

Protective equipment and other measures are in place to ensure that their health is protected.

The fire agencies also have carbon monoxide monitors in place within and immediately outside the mine boundary.

People living in, working in or visiting the area:

For the general community, very fine particles are the main smoke component of health concern.

The Environment Protection Authority (EPA) has air monitoring in place for fine particles in Traralgon and now in Morwell to measure the impacts of smoke (from summer fires and from the brown coal

mine fires) on local air quality. Daily updates and advice on levels of particles and air quality are available on the EPA's website.

Hand-held monitors have surveyed for carbon monoxide levels in the Morwell township and around the perimeter of the mine. To date, levels of carbon monoxide are not a health concern for people how are away from the actual coal fires (ie outside the boundary of the mines). This includes people living, working in or visiting the local area.

What are the immediate health effects that may be expected in the general community due to the smoke?

Large particles can irritate the eyes, nose and throat but are too large to be breathed deeply into the lungs.

Exposure to fine particles can aggravate existing heart or lung conditions, including asthma. The elderly and children are also likely to be more sensitive to the effects of smoke.

Could this current smoke exposure affect my long-term health or that of my family?

If you smelt smoke without experiencing any symptoms, no future adverse health effects would be expected in healthy people.

If you experienced irritation to your eyes, nose or throat, these effects should resolve quickly once the fires are controlled. If not, seek medical advice.

If you were exposed to high air levels of smoke, breathing difficulties may develop or recur in the following 36 hours. Seek immediate medical help if symptoms occur.

Protecting your health

For people other than those directly fighting the fires in the two coal mines, during the current smoky conditions:

- Avoid physical activity outdoors (exercise allows more fine particles to be breathed deeper into the lungs).
- People with pre-existing lung or heart conditions in particular, should rest as much as possible and keep away from the smoke.
- Anyone with a heart or lung condition should follow the treatment plan advised by their doctor and keep at least five days supply of medication on hand.

- People with asthma should follow their personal asthma plan.
- When smoke is in the air, but a fire is not directly threatening you, stay indoors and close all windows and doors.
- If you operate an air conditioner during smoky conditions, switch it to 'recycle' or 'recirculate' to reduce smoke coming inside your home.
- If your home gets too hot to be comfortable, or is letting in outside air, try to take an air conditioned break at a local community library or shopping centre unless fire warnings indicate it is not safe to do so.
- If there is a break in smoky conditions, take the opportunity to air out your home to improve indoor air quality.
- When indoors, minimise other sources of air pollution, such as cigarette smoke, burning candles, using unflued gas appliances or woodstoves or stirring up fine dust from sweeping or vacuuming.
- During extended, very smoky conditions, sensitive individuals should consider temporarily staying with a friend or relative living outside the smoke-affected area.

I am still concerned about the health of my family. What should I do?

If you or anyone in your care is experiencing health effects, see a doctor. Take this sheet with you.

Private water tanks

I use my rainwater tank as a drinking water supply. Will my tank water be contaminated?

General advice from the Department of Health is that if your tank water supply tastes, looks or smells unusual do not use it for drinking, bathing or for pets.

Contact your local council Environmental Health Officer or the Department of Health for additional advice.

Pets / Animals

I am concerned about my pets. What should I do?

If you have any concerns about the health of your pets, take them to see a vet.

I am concerned about my livestock. What should I do?

If you have any concerns about the health of your livestock, consult a vet or the Department of Environment and Primary Industries Customer Service Centre on 136 186.

Further information

Smoke and your health and safety

If you see smoke haze, check for fire warnings in your area::

- Listen to your local radio station for updates
- Visit the Country Fire Authority Victoria website at: www.cfa.vic.gov.au/
- Call the Victorian Bushfire Information Line on 1800 240 667. TTY users should use the National Relay Service (phone 1800 555 677) then ask for 1800 240 667
- If you or anyone in your family is experiencing symptoms that may be due to bushfire smoke exposure, seek medical advice or call NURSEON-CALL on 1300 60 60 24.
- Anyone experiencing difficulty breathing or chest pain should seek urgent medical assistance phone 000.

EPA Victoria

More information on the impacts of smoke on local air quality contact EPA Victoria on 1300 372 842 (24 hours) or go to the EPA webpage at: www.epa.vic.gov.au

Department of Health

More information on the health effects of smoke, or on the use of water from rainwater tanks contact 1300 761 874 (during business hours) or got to:

www.health.vic.gov.au/environment/bushfires.htm

Asthma Foundation

For further information about asthma go to the Asthma Foundation of Victoria website at: www.asthma.org.au or call 1800 278 462.

Local Government

Latrobe City Council can be contacted on 1300 367 700 or go to: <http://www.latrobe.vic.gov.au/Home>

Vic Emergency

More information on summer fires across Victoria go to: www.emergency.vic.gov.au

