

# Ash fall-out – Hazelwood open cut mine fires

Community information

February 2014

**This information has been developed by the Department of Health in response to community questions and concerns about ash fall-out from the Hazelwood open cut mine fires.**

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 and ash from the burning brown coal.

## **What is coal ash?**

Coal ash is the fine powdery material produced as a by-product of the combustion of coal. When coal is burnt, any particles that do not completely combust or are too large to become airborne are deposited on surfaces as ash.

Ash is visible to the eye. Ash particles are larger than fine particles associated with the smoke.

The primary issue with ash is fall out onto surfaces.

## **What is in the ash from Latrobe Valley brown coal?**

Victoria's brown coal has low levels of contaminants compared to other coal types. Current information indicates that ash from Victoria's brown coal contains oxides of mainly calcium, aluminium, potassium, sodium, iron and magnesium. These chemicals have the potential to act as mild skin, eye or throat irritants.

The Environment Protection Authority (EPA) has analysed samples of the ash and confirmed that it is mostly composed of the metals iron and aluminium. Very low levels of mercury and lead were detected at levels that do not pose a risk to health. Neither cadmium nor arsenic were detected.

## **What about other emissions from the fire?**

The Latrobe Valley region is currently experiencing high levels of smoke from both the coal mine fires and also summer grassfires or bushfires. Smoke from these sources is impacting on local air quality.

Smoke from coal mine fires is a mixture of different-sized particles, water vapour and gases including carbon monoxide, carbon dioxide, nitrogen oxides and sulphur oxides.

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

The primary health concern for fine smoke particles from the coal mine fires is respiratory irritation.

The primary health concern for ash fall-out is settling on surfaces, skin contact or nuisance to the eyes.

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

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

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

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

## **Protecting your health**

### **For ash fall-out on surfaces**

To reduce ingestion of ash or nuisance to the eyes:

- Practice good hygiene. Wash ash off your hands, face and neck as needed.
- It is not recommended that babies and young children play in ash or dusty conditions.

### **For fine particles in smoke**

- During extended, very smoky conditions, sensitive individuals should consider temporarily staying with a friend or relative living outside the smoke-affected area. Others should also consider a break away from the 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 at home, stay indoors with all windows and doors closed.
- If you operate an air conditioner during smoky conditions, switch it to 'recycle' or 'recirculate' to reduce smoke coming inside your home.
- When indoors, minimise other sources of air pollution, such as cigarette smoke, burning candles, using woodstoves or stirring up fine dust from sweeping or vacuuming.
- If your home gets too hot to be comfortable, or is smoky, try to take an air-conditioned break at a local community library or shopping centre.
- If there is a break in smoky conditions, take the opportunity to air out your home to improve indoor air quality.

#### **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.

## **Plants and property**

#### **Can ash from the coal mine fire affect my garden vegetation?**

Ash from the coal mine fires is not expected to have any detrimental effects on your garden. However, deep ash levels may smother vegetation and hot ash may burn vegetation affecting plant growth and survival.

#### **Can I eat my garden vegetables, fruit or herbs?**

Always use common sense when deciding whether or not food is safe to eat. Vegetables, fruit or herbs should be washed in water prior to eating.

If you do not wish to eat the produce in your garden, affected vegetation can be washed and composted.

#### **My house smells of smoke. What should I do?**

If your house smells of smoke:

- open it up to sunlight and fresh air
- air soft furnishings in the sunshine
- wipe indoor surfaces with water. If surface film is visible, wash down with soap and water

#### **What about clothing left outdoors?**

If your clothes were out on the line, rewashing clothing will ensure that sensitive skin is protected from possible irritants.

## **Rain 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.

The town water supply is safe to use for drinking and all other domestic uses.

## **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:

- Listen to your local radio station for updates
- Visit the Country Fire Authority Victoria website at: [www.cfa.vic.gov.au/](http://www.cfa.vic.gov.au/)
- Call the Victorian Bushfire Information Line on 1800 240 667. TTY users call 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 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:** 1300 372 842 (24 hrs) [www.epa.vic.gov.au](http://www.epa.vic.gov.au)

**Department of Health:** 1300 761 874 (business hours)

• [www.health.vic.gov.au/environment/bushfires.htm](http://www.health.vic.gov.au/environment/bushfires.htm)

• Water tanks: [www.health.vic.gov.au/environment/water](http://www.health.vic.gov.au/environment/water)

**Asthma Foundation:** 1800 278 462 [www.asthma.org.au](http://www.asthma.org.au)

**Latrobe City Council:** 1300 367 700

<http://www.latrobe.vic.gov.au/Home>

**Vic Emergency:** [www.emergency.vic.gov.au](http://www.emergency.vic.gov.au)

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