

## **Wood Smoke Reduction & Education Program 2009.**

Cootamundra Shire Council is undertaking a Wood Smoke Reduction and Education Program this winter which aims at improving local air quality and more importantly, ensures healthier air for residents to breathe. The program is about reducing wood smoke not about banning heaters or removing heaters that comply with AS/NZS 4013:2004.

The Wood Smoke Reduction and Education Program aims to help you get the most out of your wood fire heater, while protecting the environment and your health.

During the winter months, smoke from domestic wood heaters causes a lot of air pollution. In Cootamundra, it's quite common to observe a layer of smoke hanging over the town in the early evening and morning. The majority of this smoke is caused by domestic wood heaters emitting excessive smoke into the atmosphere which is trapped under a warm layer of air known as an inversion layer.

### **How can I reduce Wood smoke?**

Smoke from wood heaters is a major cause of air pollution in winter. Not only is a smoking fire wasting money, but the air pollution it causes can also affect our health.

You can minimise air pollution by:

- Always burning small logs of aged, dry hardwood – unseasoned wood has more moisture which makes a heater smoke
- Storing wood under cover in a dry ventilated area; freshly cut wood needs to be stored for 8-12 months. *(For reasons of fire safety, it is advised that firewood be stored in an area away from the house).*
- Never burning rubbish, plastics, treated or painted wood, which can pollute the air and can be poisonous.
- Using plenty of dry kindling to establish a good fire quickly when lighting a cold fire.
- Stacking wood loosely in your firebox so air can circulate – don't cram the firebox full.
- Keeping the flame lively and bright; your fire should only smoke for a few minutes when you first light it and when you add extra fuel.
- Opening the air controls fully for 5 minutes before and 15-20 minutes after reloading.
- Not letting your heater smoulder overnight – keep enough air in the fire to maintain a flame.
- Checking your chimney regularly – if there is smoke coming from the chimney, increase the air supply to your fire.
- Cleaning the chimney every year to prevent creosote build up.



Creosote is a sticky black residue that can build up in your chimney—it restricts air flow and makes your fire harder to start. A creosote-clogged chimney can spill smoke into your room when you open the heater, and even catch fire, putting your home at risk.

## **How can I reduce Heating Costs**

Save money by:

- Insulating ceilings, walls and floors
- Sealing out draughts
- Covering your windows with curtains, blinds or double glazing, and placing a pelmet above curtains
- Installing doorways or other barriers between different areas of your home
- Opening curtains on north-facing windows on sunny winter days
- Using ceiling fans to return heat that has risen to a second storey or to the ceiling
- Wearing warm clothing instead of turning the heat up
- Closing off chimneys when they are not being used, to stop heat losses through the chimney cavity.

For more information on energy efficiency visit the Energy Smart website at [www.energysmart.com.au](http://www.energysmart.com.au)

## **Wood smoke and your health**

During the winter, smoke from domestic wood heaters causes a lot of air pollution. Pollutants in the smoke include:

- gases such as carbon monoxide
- organic compounds, including air toxics
- fine particles, formed when unburnt gases cool as they go up the chimney; in the air, these can be seen as white smoke.

## **Who is at risk?**

Wood smoke pollution affects everyone. It is bad for your health and the health of others in your community. Health effects depend on the extent of your exposure to wood smoke, your age and your current state of wellbeing.

People who are more at risk are:

- infants and very young children
- those suffering from existing cardiac or respiratory conditions, such as asthma
- those with vascular complications from diabetes
- frail elderly people.



You can be affected by wood smoke:

- inside and outside your home
- from your own wood heater or from other wood heaters in your neighbourhood.

### **Ways in which wood smoke can affect your health**

A poorly installed or leaking wood heater can cause excessive levels of carbon monoxide (CO) in the home. CO deprives the body of oxygen, impairing thinking and reflexes. At low levels of exposure, people can experience headaches, fatigue or chest pain; and at moderate levels, flu-like symptoms. At high concentrations, CO poisoning may result in death.

Particulate matter (PM) can cause short term health problems including itchy or burning eyes, throat irritation and a runny nose; and illnesses like bronchitis. Particles can aggravate existing heart and lung conditions such as angina, chronic bronchitis, emphysema and asthma.

Air toxics generated during wood burning include polycyclic aromatic hydrocarbons (PAHs) which may cause cancer. Air toxics can also cause eye irritation, headaches and serious damage to the respiratory, nervous, reproductive, developmental and immune systems.

Studies have shown that PAH levels are highest during winter in NSW regional towns where wood heaters are a popular form of heating.

### **Legislation**

The Protection of the Environment Operations Act (POEO) 1997 regulates solid fuel heaters in NSW and includes enforcement provisions for residential properties which emit excessive wood smoke.

Under Section 135B(1) of the POEO Act an authorised officer of Council may, if necessary, issue a smoke abatement notice to the occupant of a property, if it appears that excessive smoke is being emitted, or has been emitted from a chimney. The notice must be issued within 7 days of the excessive smoke being emitted.

***Excessive smoke means the emission of a visible plume of smoke from a chimney for a continuous period of not less than 10 minutes, including a period of not less than 30 seconds when the plume extends at least 10 metres from the point at which the smoke is emitted from the chimney.***

The primary purpose of the smoke abatement notice provisions is to provide a deterrent to the poor operation of wood heaters and fireplaces. The provisions specifically target those householders who allow their heaters to emit visible smoke for lengthy periods of time and who are unwilling to cooperate with council efforts to help them improve the operation of their wood heater or fireplace.

Council may issue a penalty notice for a failure to comply with a smoke abatement notice. The penalty notice imposes a fine of \$200 for individuals and \$400 for corporations. For more serious breaches that are dealt with by a court, the maximum penalty that may be imposed on individuals or corporations is \$3300.

### **Further Information**

If you would like to know more about reducing smoke from your wood heater or would like more information on the Wood smoke Reduction and Education Program please contact Cootamundra Shire Councils Environmental Health and Building Surveyor Mr Chris Imrie on 02 6940 2100. Or you can visit the Department of Environment (DEC) website at <http://www.epa.nsw.gov.au/woodsmoke/index.htm>