Work Health and Safety ALERT

SMOKE HAZE – BUSHFIRE and HAZARDOUS AIR QUALITY

Air quality is officially ‘Hazardous’ in many regions across Australia due to smoke from an unprecedented number of bushfires. This is a serious risk to workers health and safety. Bushfire smoke contains a mixture of gases and particulates that are hazardous to health. Health of those working outdoors and performing physically intensive activities are at greatest risk from exposure.

Employers are legally required to ensure safe work and workplaces for workers. Management must proactively manage the risk to workers health and safety from bushfires and subsequent exposure to hazardous air contaminants. This is called an Emergency Response Plan (ERP).

Hazardous Air Quality ERPs must include alternative work arrangements to manage risks to workers health, have clear communication procedures to notify workers of the health risks, provide instructions for ceasing unsafe outdoor work activity and monitoring indoor air quality to remove workers from contaminated sites, and effective systems that monitor worker health.

The first objective of alternative work arrangements must be to eliminate the risk to workers health from exposure to polluted air. If it’s not possible to eliminate the risk, alternative work arrangements must effectively minimise the risks to workers health consistent with Health Department advice. More information and links to relevant sites follow.

This SAFETY ALERT provides

- advice on health risks from hazardous air quality;
- information on who’s health is most at risk;
- what an effective response plan should do to ensure safe work and workplaces for workers.

Please contact your local CPSU organiser or call 1300 137 636 for assistance.

Health effects from exposure to bushfire smoke

Smoke from bushfires is made up of very small particles and gases. Particles so small they can penetrate deep into the lungs and aggravate existing lung and heart conditions.

For most people the health effects are relatively mild symptoms like sore eyes, nose and throat, and/or cough. These symptoms are temporary, however may take several days to resolve.

Whose health is most at risk from air pollution? Health sensitive groups

Health sensitive people are at a greater risk of experiencing adverse health impacts and alternative work arrangements must provide additional measures to manage the increased risk to these workers health. The following people are more likely to be affected:

- People with asthma,
- People with lung disease or history of respiratory illness (such as chronic bronchitis)
- People with cardiovascular (heart) disease or history of heart conditions
- Pregnant women because they may be more sensitive to the effects
- Children because they spend more time outdoors engaged in physical activity, have developing airways, and breathe more air relative to their body weight.

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People with a lung or heart condition such as emphysema, angina and asthma may experience a worsening of their condition, potentially leading to severe responses like asthma or heart attack.

**What should happen when a hazardous air quality event occurs?** The Emergency Response Plan (ERP) must be implemented. The ERP should first determine the level of risk to workers taking into account level of air contamination (AQI), potential for exposure (type of work) and health of individual workers. Workers must then be advised of the risk to their health and alternative work arrangements – practises and procedures to follow.

**Here’s a general check list for how an Air Pollution ERP should operate**

**Step 1: Find out if outdoor air pollution is hazardous**

Governments use air monitoring stations to measure common hazardous air pollutants. This air quality monitoring system is used to advise community of air quality on an hourly and daily basis in their area using an Air Quality Index (AQI) – issuing Air Pollution Health updates and alerts.

### Find your current Air Quality Index rating – QLD, NSW, ACT, VIC, TAS, NT, SA, WA ###

**Step 2: Determine general level of risk to workers health**

State and Territory health departments use the Air Quality Index (AQI) ratings to provide advice on risk to human health from air pollution. This includes advice on which people are most at risk, and what people should generally do to protect their health at each AQI level; see below.

<table>
<thead>
<tr>
<th>Air Quality Index Levels of Health Concern</th>
<th>Numerical Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair</td>
<td>67 to 99</td>
<td>Sensitive groups: strenuous outdoor activities when air quality is better.</td>
</tr>
<tr>
<td>Poor</td>
<td>100 to 149</td>
<td>The general public is not likely to be affected. Sensitive groups cut back or reschedule strenuous outdoor activities.</td>
</tr>
<tr>
<td>Very poor</td>
<td>150 to 199</td>
<td>Everyone cut back or reschedule strenuous outdoor activities. Sensitive groups should not be doing strenuous outdoor activities.</td>
</tr>
<tr>
<td>Hazardous</td>
<td>200+</td>
<td>Sensitive groups avoid all outdoor physical activities. Everyone significantly cut back on outdoor physical activities.</td>
</tr>
</tbody>
</table>

### Find Health Department advice for AQI ratings here: QLD, NSW, ACT, VIC, TAS, NT, SA, WA ###

**Step 3: Communication to workers activating ERP and identify those most at risk**

Workers are notified of the risk to their health and activation of the ERP. Managers need to be asking workers if they are in a health sensitive group or currently showing adverse health symptoms. This information is essential for managers implementing alternative work arrangements to eliminate or reduce exposure for workers based on level of risk to their health.

**Step 4: Implementation of alternative work arrangements – practices and procedures**

Managers implement alternative work arrangements and monitor workers health. Alternative work arrangements need to be specifically adapted to (i) level of risk to workers health at the AQI rating (ii) take into account the potential for exposure from the work performed – indoor / outdoor, type of work performed eg physically intense, and (iii) individual worker’s current health circumstances.

The alternative work arrangements must not be inconsistent with general health department advice and specific for the following three groups of workers with different levels of risks to their health

1. Generally healthy workers – “Everyone, general risk to population”

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2. Workers at **HIGH RISK** – those in “health sensitive groups”; and
3. Workers who are showing “symptoms of negative health impacts” – also now **High Risk**

Managers should regularly check in with workers to identify any adverse health impacts from, and make changes to work arrangements to eliminate or reduce exposure for workers

**Here’s a few scenarios of appropriate alternative work arrangements**

- I work outdoors, the work can involve strenuous physical activity, and I am generally healthy. The AQI in my area has reached **Very Poor** rating.  
  My manager changed work arrangements by cutting back and limiting strenuous work activities, use P2 half face masks, take frequent 30 minutes breaks inside a building or car, and not work outdoors more than three hours per day.

- I work outdoors, the work involves physical activity, and I am in a health sensitive group because I am Asthmatic. The AQI in my area has reached **Very Poor**.  
  My manager has removed me from working outdoors and provided me alternative work from the office/depot to ensure I’m not exposed to the Hazardous air.

- I work outdoors, the work involves physical activity, and I am not in a health sensitive group but I’m coughing a lot – have sore eyes and stinging feeling in my nose. The AQI is **Poor**.  
  My manager has removed me from working outdoors and asked me to go to the doctor for a health check. Manager has provided me alternative work from the office/depot to ensure I’m not exposed to the Hazardous air until my symptoms resolve.  
  New work arrangements for all workers are to cut back and limiting strenuous work activities and take frequent 30 minutes breaks inside a building or car.

- I work outdoors, the work involves physical activity, and I am not in a health sensitive group. The AQI in my area has reached **Hazardous**.  
  My manager has removed me from working outdoors and provided me alternative work from the office/depot to ensure I’m not exposed to the Hazardous air.

- I work indoors, the work does not involve physical activity, and I am in a health sensitive group. The AQI in my area has reached **Hazardous**. I am concerned about working in the office because customer enter through large automatic doors that let in smoke.  
  My manager has approved me to work at another building that doesn’t have open customer entry, or work from home if I believe this is a better option to limit exposure to smoke.  
  New work arrangements for all workers are to close automatic customer entry door entry and direct customers to the normal swinging door entry instead to limit air contamination.

- I work indoors, the work does not involve physical activity, and I am not in a health sensitive group. The AQI has reached **Hazardous**, with rating 800+, public health warnings issued.  
  All workers have been advised to not come into the office for next 48 hours until the smoke clears to a safer AQI. Managers have asked workers login to work remotely if possible.

- I work mostly indoors but am required to travel out to interview clients. Interviews can be indoors and outdoors, the work does not involve physical activity, and I am in a health sensitive group. The AQI in my area is reached **Very Poor**.  
  All workers have been advised to limit interviews to no more than 3 hours a day and not conduct them outside. My manager has directed me to post pone all my interviews and work from the office until the AQI improves.
Monitoring indoor air quality

Working indoors significantly reduces exposure to hazardous air quality but is not without risk to worker health. Even with air conditioning units set to maximise use of internal air, between 5 to 10% of air will still come externally. For this reason management should actively monitor air quality indoors and discuss alternative work arrangements with health sensitive workers who want them.

Air quality-industrial hygienists should be routinely asked to test air quality where concerns are raised about indoor air quality and to monitor ongoing air quality.

Ceasing Unsafe Work

If a worker has concerns about serious risks to their health or safety from hazardous air quality and management have failed to take appropriate action through alternative work arrangements, the worker has the right to cease unsafe work under the WHS Act.

All workers, whether permanent, labour hire or contractor, may cease or refuse to carry out work if the worker has a reasonable concern that to carry out the work would expose them to a serious risk to health or safety, emanating from an immediate or imminent exposure to a hazard.

Before exercising this right, or advising a worker about exercising this right, you should contact your local CPSU organiser, or the MSC on 1300 137 636.

Here’s how a worker can exercise their right to cease, or refuse to carry out, unsafe work:

1. Let their supervisor know as soon as practicable that they have ceased work that is unsafe in accordance with Section 84 of the WHS Act, and what that specific work/task or duty is.
   (also let the HSR and the CPSU know that they have ceased work under s.84)

2. Explain the situation to the supervisor so they can understand what needs to be addressed to ensure work is safe to do.

3. If possible, workers should do alternative work. If there isn’t alternative work, the worker must make themselves available to be assigned alternative duties.

4. Consult with their manager to solve concerns and establish whether it is safe to do the work. When doing this we recommend including an HSR and CPSU representatives for assistance.

5. At any time, the assistance of WHS regulator (eg Comcare) can be sought. The inspector also has the power to determine when it’s safe do the work and under what conditions that may occur.

If you have any questions of need further information about Hazardous Air Quality from the Bushfires contact your CPSU organiser or the Members Service Centre on 1300 137 636.