

3 Your legal responsibilities

3.1 **Public Health and Wellbeing Act 2008 and the Public Health and Wellbeing Regulations 2009¹**

The *Public Health and Wellbeing Act 2008* requires:

- The owner of the land on which there is a cooling tower system to ensure that each cooling tower system on that land is registered² with the Department of Health at all times that the cooling tower system is in operation³;
- The registration holder to notify the Department within 30 days of:
 - A change in the ownership of the land
 - A change in their mailing address or their contact details;
 - A change in the numbers of cooling towers in a cooling tower system;
 - The removal or decommissioning of the cooling tower system
 - The relocation of the cooling tower system on land;
- The owner of the land on which there is a cooling tower system to take all reasonable steps to ensure that a risk management plan is developed for the cooling tower system and continues to exist at all times the system is in operation. **The plan must:**
 - Address five critical risks⁴:
 - **Stagnant water**, including the lack of water recirculation in a cooling tower system and the presence of dead-end pipework and other fittings in the cooling tower system;
 - **Nutrient growth**, including:
 - the presence of biofilm, algae and protozoa in a cooling tower system;
 - water temperature within a range that will support rapid growth of microorganisms in a cooling tower system;
 - the exposure of the water of a cooling tower system to direct sunlight;
 - **Poor water quality**, including the presence of solids, Legionella and high levels of microorganisms in a cooling tower system
 - **Deficiencies in a cooling tower system**, including deficiencies in the physical design, condition and maintenance of the system;
 - **The location of, and access to, a cooling tower or cooling tower system**, including the potential for

¹ These are proposed to be made during mid to late December 2009 and will commence from 1 January 2010

² The Act provides for registration periods of up to three years and in practice the Department will offer 1, 2 or 3 year registration periods. Contact the Department for more information

³ The maximum penalty for a company which fails to comply with this requirement is in excess of \$70,000

⁴ The plan must also address any matters raised in a report from any person engaged by the owner of the land or the owner of the cooling tower system which refers to control measures being inadequate or requiring improvement

environmental contamination of the system and the potential for exposure of people to the aerosols of the system;

- Address any matters raised in a report from any person engaged by the owner of the land or the owner of the cooling tower system which refers to control measures being inadequate or requiring improvement;
- Set out the steps to be taken to ensure compliance with the maintenance, service and testing requirements described in the *Public Health and Wellbeing Regulations 2009*⁵ of a cooling tower system. For example, the plan will need to describe how you will respond to an adverse microbiological test result e.g. detection of Legionella or a high HCC result;
- The owner of the land on which there is a cooling tower system to take all reasonable steps to ensure that the risk management plan is audited annually.

Owners, occupiers and managers of property should note that the Act provides the Department's authorised officers with extensive powers of entry to sites with cooling tower systems.

The *Public Health & Wellbeing Regulations 2009* require the person who owns, manages or controls a cooling tower system:

- To ensure that the water in the system is continuously treated with:
 - One or more biocides to effectively control the growth of microorganisms including Legionella;
 - Chemical or other agents to minimise scale formation, corrosion and fouling;
 - A biodispersant.
- To ensure that:
 - A chlorine-compatible biodispersant is added to the recirculating water of the cooling tower system; and
 - The system is then disinfected, cleaned and re-disinfected –
 - Immediately prior to initial start up following commissioning, or any shut down period of greater than one month; and
 - At intervals not exceeding 6 months.
- To ensure that the system is serviced at least once each month;
- To ensure that a water sample is taken from the cooling tower system at least once each month and sent to a laboratory for a HCC count;
- To ensure that a water sample is taken from the cooling tower system at least once every three months and sent to a laboratory for a Legionella test.

The regulations also require the person who owns, manages or controls a cooling tower system to take certain actions following a high HCC result or the detection of Legionella.

These are summarised in the flow charts (Attachment A and B).

Attachment A describes the process to be followed when the HCC level exceeds 200,000 cfu/mL.

⁵ These regulations are expected to be made in mid-December 2009 and commence on 1 January 2010. They should be available for download from www.legislation.vic.gov.au after 16 December 2009.

Attachment B describes an alternative process that may be followed when the HCC level exceeds 200,000 cfu/ml provided the system was manually treated with additional quantities of biocide or an alternative biocide during the period between the sample being taken and the laboratory result being received.

Attachment C describes the process which must be followed after the detection of Legionella.

3.2 Occupational Health and Safety Act 2004

Employers must provide a safe and healthy workplace for their workers and contractors.

For further information refer to www.worksafe.vic.gov.au