

## Legionella Management

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<b>Responsible Position</b>	Senior Environment and Health Officer
<b>Branch</b>	Environmental Control
<b>Division</b>	Environmental Services
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Document Revision History	
Description	Date
Notes	

# POLICY

## PURPOSE

The purpose of the Legionella Management Policy is to minimise the risk of transmissions of Legionellosis (Legionnaires Disease) from the built environment to susceptible hosts.

The principal goals of the Management Policy are to ensure that:

- All regulated water-cooling systems and warm-water systems are registered in accordance with the Public Health Act, 2010 and the Public Health Regulation, 2012;
- All regulated systems as defined by the Public Health Act, 2010 shall comply with legislation in respect to installation, commissioning, operation and maintenance;
- Building owners and occupiers understand and adhere to their responsibilities of installing, operating and maintain a regulated system in accordance with the Public Health Act, 2010 and the Public Health Regulation, 2012.
- All regulated systems are audited and inspected for compliance with Public Health legislation at least every third year.
- Annually all regulated systems are reviewed to ensure Council's register information is current and accurate and all information is provided in accordance with the Public Health legislation.

## BACKGROUND AND RELATED LEGISLATION

Within most local government areas the built environment will contain water-cooling systems and warm-water systems. These systems can provide an ideal breeding ground for *Legionella* bacteria. The *Legionella* bacteria can cause a type of pneumonia (an infection of the lung), which can be fatal, known as Legionnaires' disease and/or Pontiac fever (a mild flu-like illness). The disease has an incubation period from 2 to 10 days for the symptoms to develop after inhaling the bacteria. The *Legionella* bacteria are transmitted through aerosols.

Outbreaks of Legionnaires' disease occur from time-to-time but are preventable. *Legionella* bacteria can grow in poorly operated and maintained water-cooling systems and warm-water systems, particularly those systems which are not maintained in a clean condition and continuously treated with a biocide to control *Legionella* bacteria, algae and biofilms.

Hundreds of residents, workers and visitors may be potentially exposed to this health hazard on a daily basis if systems are not properly installed, commissioned, operated and maintained.

The Public Health Act, 2010 (the Act) and the Public Health Regulation, 2012 (the Regulation) control various water and air systems in the built environment. These systems are known as 'regulated systems' and include:

- Water-cooling systems;
- Hot-water systems;
- Humidifying systems;
- Warm-water systems; and
- Air-handling systems.

The purpose of the Act and Regulation is to ensure owners and occupiers of buildings comply with minimum legislative responsibilities in order to prevent or prohibit the growth of micro-organisms in these regulated systems that are liable to cause Legionnaires' disease and other diseases.

Related legislation includes:

- NSW Public Health Act, 2010;
- NSW Public Health Regulation, 2012;
- NSW Code of Practice for the Control of Legionnaires Disease;
- AS/NZS 3666.1: 2011 Air-handling and water systems of buildings—Microbial control—Design, installation and commissioning;
- AS/NZS 3666.2: 2011 Air-handling and water-systems of buildings—Microbial control—Operation and maintenance; and
- AS/NZS 3666.3 2011 Air-handling and water-systems of buildings—Microbial control—Performance-based maintenance of cooling water systems.

## SCOPE

This Policy applies to all buildings in the local government area utilising a regulated system as defined by the Public Health Act. The Policy will assist Council to inform the following persons to ensure compliance with the regulatory requirements in order to minimise the potential for outbreaks of Legionnaires’ disease:

- Developers;
- Architects;
- Building owners and building manager/caretaker/agent;
- Council’s authorised officers; and
- Other government agencies.

## DEFINITIONS

To assist in interpretation, the following definitions apply:

Term	Definition
Regulated system	<p>As defined by the Public Health Act, 2010 means any of the following:</p> <ul style="list-style-type: none"> <li>(a) an <i>air-handling system</i>, being a system designed for the purpose of directing air in a positive and controlled manner to and from specific enclosures by means of air-handling plant, ducts, plenums, air-distribution devices and automatic controls;</li> <li>(b) a <i>hot water system</i>, being a system designed to heat and deliver water at a temperature of at least 60°C at each outlet point;</li> <li>(c) a <i>humidifying system</i>, being a system for adding moisture to air in order to raise its humidity;</li> <li>(d) a <i>warm-water system</i>, being a system designed to heat and deliver water at a temperature of less than 60°C at each outlet point;</li> <li>(e) a <i>water-cooling system</i>, being: <ul style="list-style-type: none"> <li>(i) a device for lowering the temperature of water or other liquid by evaporative cooling, or</li> <li>(ii) an evaporative condenser that incorporates a device containing a refrigerant or heat exchanger, together with its associated equipment and pipe work,</li> </ul> </li> <li>(f) any other system for the treatment of air or water that is declared by the regulations to be a regulated system for the purposes of this Division</li> </ul>

## **POLICY**

### 1. Regulation of regulated systems

Council will regulate regulated systems through an annual review and inspections as required.

#### 1.0 Annual Review of Warm Water Systems

All building managers will be required to complete a Water Cooling System Registration Form (see **Appendix A**) to ensure Council's register is maintained up to date and accurate.

#### 1.1 Annual Review of Water Cooling Systems

All building managers will be required to complete a Water Cooling System Registration Form (see **Appendix B**) to ensure Council's register is maintained up to date and accurate. In addition to completing the form the building manager will be required to provide a current certificate for the Process of Disinfection. (An exemption for completing the form will be given to building Managers whereby no details have changed from the previous year).

#### 1.2 Inspection of Water Cooling Systems

In addition to the annual review, water cooling systems will be inspected at least once every third year. When conducting the inspection, Council's authorised officer should:

- Make an appointment with the appropriate person responsible for the regulated system, or in the case of an emergency
- present themselves at reception, advise that they are at the premises to conduct an inspection and request to speak to an appropriate person.
- Conduct the inspection at a reasonable time.
- Provide proof of identity when requested.
- Adhere to any occupational health and safety requirements applicable whilst in attendance.
- Record all non-compliances.
- Provide a written report on all outcomes from the inspection.
- Answer any questions relating to the report or other related matters.
- Be courteous and fair throughout the inspection.
- Exercise discretion when required in all of the above matters.

#### 1.3 Re-Inspection

Council will undertake a re-inspection (where required) to enforce compliance with legislation. A re-inspection will be undertaken for all non-compliances where the risk is considered greater than low and the non-compliance cannot be immediately rectified.

#### 1.4 Verbal Warnings

Council's Authorised Officers may issue verbal warnings for non-compliances where the risk of the non-compliance is considered low or can be immediately rectified.

#### 1.5 Written Warnings

Council may issue a written warning (letter) for non-compliances where the risk of the non-compliance is considered low, is the first offence and not an immediate risk to public health.

## 1.6 Improvement Notice

Council may issue an improvement notice for non compliance with the Public Health Act 2010 where non compliance/s present a medium to high risk or where a warning has previously been issued.

## 1.7 Penalty Notice

Council may issue a penalty notice where a business fails to rectify non compliances or where the risk of non compliance is considered medium to high.

## 1.8 Prohibition Order

A prohibition order may be issued on a business failing to comply with Public Health Act 2010 where continued operation of a business, use of specific rooms or equipment presents a serious risk to public health.

## 2. Council's responsibilities and requirements

### 2.1 Register

Council must maintain a register of all cooling towers throughout the local government area and warm water systems installed within nursing homes and hospitals only.

### 2.2 Inspections

Environment and Health Officers are authorised under the NSW Public Health Act to undertake inspections of regulated systems and take action where they believe a system does not comply with applicable legislation.

### 2.3 Reporting

Council is required to provide a report of its legionella management activities as required to NSW Health.

## 3. Responsibilities and requirements for building owners and occupants

The responsibility for a regulated system varies according to the circumstances. Generally, the prime responsibility for a regulated system rests with the owner and/or occupier of the premises where the regulated system is located unless a competent person is engaged.

### 3.1 Owner

The owner has responsibilities only when the owner controls the part of premises (operation area) on which the regulated system is situated.

### 3.2 Occupier

The occupier of the part of premises (operation area) on which the regulated system is situated is responsible for the proper installation, commissioning, operation and maintenance of the regulated system unless:

- The installation is carried out by an installer who might reasonably be expected to be competent to install and commission the system; or
- The operation and maintenance is carried out by a contractor who might reasonably be expected to be competent to operate and/or maintain the regulated system.

The occupier is also required to register the regulated system with the local authority. The building manager, if engaged by the occupier, is the agent of the occupier and the occupier still bears the legal responsibility for the regulated system.

### 3.3 Installation

A regulated systems must be installed and commissioned in accordance with AS/NZ3666.1.2011. If a regulated system is not installed as required, then both the installer and the occupier of that part of the building where the system is installed (whether the occupier is the owner or not) are both guilty of an offence.

The occupier must be given both an operation manual and a maintenance manual for the system by the installer, each of which must comply with the requirements for such manuals set out in AS/NZS 3666.2:2011. The operating manual should depict the water treatment process and include:

- Physical details (drawing);
- Operating procedures;
- Shut down procedures;
- Certification of the disinfection process;
- Emergency contact details;
- Contractor contact details; and
- Decontamination procedures

Manuals should be periodically reviewed by site owners/occupiers to incorporate amended legislation, standards, codes and industry practices. Manuals shall be kept onsite adjacent to the regulated systems or in a clearly identified location in proximity to the installation. A person in charge of the facility must be familiar with the location of these manuals.

### 3.4 Operation and Certification

Regulated systems must be operated in accordance with AS/NZS 3666.2:2011. A water cooling system must be equipped with a process designed to control microbial growth. The process:

- Must be in operation at all times independently of the water cooling system. The water cooling system must still be effectively disinfected even though the water cooling system may not be operating continuously. Further, the biocide does not have to be added at all times but rather the process must be in operation; and
- Must be certified by a competent person (a tertiary qualified chemist, chemical engineer, engineer or microbiologist and who has expertise in the relevant field) annually as being an effective process of disinfection under the range of conditions that could ordinarily be expected. The competent person is certifying the process, not its performance under installed field conditions.
- Must be sufficiently effective so that no sample taken from any part of the system subjected to a test in accordance with the relevant Australian Standard has:

- A level of Legionella of more than 10 colony forming units per millilitre; or
- A Heterotrophic Plate Count of more than 100,000 colony-forming units per millilitre
- Must be supplemented by remedial action taken by a competent person after any test where the levels set out above are exceeded. Remedial action could include recommendations regarding the disinfection process which could then be implemented by the competent operator.

The Occupier must keep a copy of the most recent Certificate for the Process of Disinfection at the premises and make it available for inspection on request by an authorised officer. The occupier will also be responsible of ensuring the certificate is provided to Council during the annual review process.

If the occupier fails to ensure that the regulated system is operated and maintained properly then the occupier is guilty of an offence.

### 3.5 Maintenance

Records must be kept whenever maintenance is performed. This includes the date, details of maintenance and the name of the contractor. The person carrying out the work needs to review the documentation and to sign the record document.

The Public Health Regulation 2012, Clause 8 Prescribed maintenance requirements, outlines the required Australian Standards for the maintenance of regulated systems. These are:

- AS/NZS 3666.2:2011 which is a **prescriptive approach** to operation and maintenance. Essentially the prescriptive approach requires monthly inspection and cleaning at six monthly intervals; or
- AS/NZS 3666.3:2011 but only where the local authority has been notified in writing. **Performance based monitoring** relies on a risk assessment and risk management approach based on monthly bacteriological sampling, water quality management and operating water temperature.

Records shall be kept onsite adjacent to the regulated systems or in a clearly identified location in proximity to the installation. A person in charge of the facility must be familiar with the location of these records.

If the occupier fails to ensure that the regulated system is operated and maintained properly then the occupier is guilty of an offence.

### 3.6 Registration

Under legislation the occupier of the part of the premise where a regulated system is installed must notify the local council of the following particulars:

- The address and telephone number of the premise on which the system is installed,
- The name and contact details of the occupier of the premise (including residential address, e-mail address and home, business and mobile telephone numbers),
- The Australian Business Number (ABN) or Australian Company Number (ACN) if any, of the occupier of the premise,
- The type of regulated system,

- Details of any inspections carried out by the local government authority for the purposes of the Act.

These particulars must be notified to the Council within one month after the person becomes the owner or occupier of the premise or if there is an alteration of the above details.

#### 4. Disease management and outbreak responses

The NSW Health and its Public Health Unit are responsible for coordinating a case investigation and outbreak response under the relevant notifiable disease protocols. Notification is affected by medical practitioners and laboratories to the Director General of NSW Health.

Council Officers should notify the local Public Health Unit when:

- Multiple failures occur or when a water-cooling tower has been unregistered and/or has incomplete/outdated maintenance records; or
- If a member of the public notifies Council of a health concern regarding Legionnaire's disease.

#### 5. Fees and charges

In accordance with section 608(3) of the Local Government Act 1993, Council is able to recover costs of inspecting water-cooling systems and warm-water systems. A fee for these inspections can be adopted by Council each year and any applicable fees can be listed in Council's Revenue Policy for that year.

#### 6. Training, appointment and competency of Authorised Officers

##### 6.1 Appointment of Authorised Officers

An Authorised Officer is a person appointed under the Public Health Act.

##### 6.2 Powers of Authorised Officers

For the purposes of this Act, an authorised officer may, at any reasonable time, do any one or more of the following:

- Enter the premises at any reasonable time in order to find out whether or not a system on the premises is a regulated system, and
- Inspect and test any system on the premises, and
- Investigate whether or not the prescribed operating requirements, and the prescribed maintenance requirements, have been complied with in relation to any regulated system on the premises, and
- Require the production of, and inspect, any records required by the regulations to be kept in relation to the operation and maintenance of any regulated system on the premises.

##### 6.3 Competency and training of Authorised Officers

Environment and Health officers have a key role in auditing premises and assisting NSW Health in outbreak investigations during which local knowledge is essential.

Council will support the attendance of relevant officers at training courses, as they become available.

Work Health and Safety applies in all situations involving the inspections of water-cooling towers, all Officers shall be provided with appropriate PPE (eye protection, P2 rated respirator and gloves) to safely conduct inspections.

## **RESPONSIBILITIES**

This Policy is to be enacted by Environmental Control officers who are authorised under the Public Health Act 2010. Council is required to report to NSW Health as requested or required by the legislation.

APPENDICES

Appendix A – Regulated Premises Registration Form

Registration No: \_\_\_\_\_  
Parcel No. \_\_\_\_\_



**DUBBO REGIONAL COUNCIL**  
**Environmental Services**

PO Box 81  
DUBBO NSW 2830

Telephone: 6801 4000  
Fax: 6801 4259

**REGULATED PREMISES**  
**REGISTRATION FORM**  
Local Government Act, 1993 and Public Health Act, 2010

<b>PREMISES DETAILS</b>		
Unit/Shop no: _____	Street no: _____	Street name: _____
Lot No: _____	DP: _____	Locality/Town: _____
Property/Building name: _____		

<b>BUSINESS DETAILS</b>		
Business/Trading name: _____		
ABN/ACN: _____		
Postal address: _____		
Suburb: _____	State: _____	Postcode: _____
Phone (Bus): _____	Email (Bus): _____	
Proprietor/Director:		
Surname: _____		Given names: _____
Residential address: _____		
Suburb: _____	State: _____	Postcode: _____
Phone (H): _____	Email (H): _____	
Mobile: _____		

<b>REGULATED ACTIVITY (PLEASE TICK ALL RELEVANT BOXES):</b>		Additional Comments:
<b>Mortuary</b> - Crematorium <input type="checkbox"/> - Mortuary <input type="checkbox"/> - Undertaker <input type="checkbox"/>	<b>Skin Penetration</b> - Barber <input type="checkbox"/> - Beauty Salon <input type="checkbox"/> - Cosmetic tattoo <input type="checkbox"/> - Tattooist <input type="checkbox"/> - Body piercing <input type="checkbox"/>	
<b>Public Pool</b> - Indoor <input type="checkbox"/> - Outdoor <input type="checkbox"/>	<b>Legionella</b> - Warm Water System <input type="checkbox"/> - Water Cooling System <input type="checkbox"/>	
<b>Caravan Park</b> <input type="checkbox"/>	<b>Water Carter</b> <input type="checkbox"/>	

**DEVELOPMENT CONSENT**

Business type:	<input type="checkbox"/> New business	<input type="checkbox"/> Existing business
Has a Development Consent been granted for the use?	<input type="checkbox"/> Yes DA No: .....	<input type="checkbox"/> No
Has a Construction Certificate been issued for the premises' fit-out?	<input type="checkbox"/> Yes CC No: .....	<input type="checkbox"/> No

**APPLICANT DECLARATION**

I declare that the information in this application is true and correct:

Proprietor signature/s:	1. _____	Date: _____
	2. _____	Date: _____
Print name:	1. _____	Date: _____
	2. _____	Date: _____

**ENQUIRIES**

For assistance with completing this form or for further information regarding Council's Environment and Health Surveillance Program, please call Council's Environment and Health Officers on 6801 4000.

Please send your completed registration form to:

Mail: Environmental Services Division  
Dubbo Regional Council  
PO Box 81  
DUBBO NSW 2830

In person: Civic Administration Building  
Cnr Church and Darling streets  
DUBBO NSW 2830

Fax: 6801 4259

Email: council@dubbo.nsw.gov.au

Dubbo Regional Council is authorised under the Local Government Act, 1993 and the Public Health Act, 2010 and is responsible for the surveillance and enforcement of Regulated Premises in the Dubbo Local Government Area. Council's Environment and Health Surveillance Program includes inspections for which inspection fees apply as outlined in Council's Revenue Policy.

# Appendix B – Regulated Water Cooling System Registration Form

Registration No: \_\_\_\_\_  
Parcel No. \_\_\_\_\_



## DUBBO REGIONAL COUNCIL Environmental Services

PO Box 81  
DUBBO NSW 2830  
Telephone: 6801 4000  
Fax: 6801 4259

### REGULATED WATER COOLING SYSTEM

#### REGISTRATION FORM

Public Health Act, 2010 and Public Health Regulation, 2012

#### ADDRESS OF WATER COOLING SYSTEM

Trading/premise name: \_\_\_\_\_  
Street number: \_\_\_\_\_ Unit/Suite number: \_\_\_\_\_  
Street name: \_\_\_\_\_  
Suburb: \_\_\_\_\_ Postcode: \_\_\_\_\_

#### PREMISES' OWNER DETAILS

Business name: \_\_\_\_\_ ABN/ACN: \_\_\_\_\_  
Business address: \_\_\_\_\_  
Residential address: \_\_\_\_\_  
Telephone (W): \_\_\_\_\_ (AH): \_\_\_\_\_ (M): \_\_\_\_\_  
Fax: \_\_\_\_\_ Email: \_\_\_\_\_

#### OCCUPIER DETAILS (If same as Premises owner, write AS ABOVE)

Business name: \_\_\_\_\_ ABN/ACN: \_\_\_\_\_  
Contact name: \_\_\_\_\_  
Residential address: \_\_\_\_\_  
Telephone (W): \_\_\_\_\_ (AH): \_\_\_\_\_ (M): \_\_\_\_\_  
Fax: \_\_\_\_\_ Email: \_\_\_\_\_

#### EMERGENCY/CONTACT DETAILS

Business name: \_\_\_\_\_ ABN/ACN: \_\_\_\_\_  
Contact name: \_\_\_\_\_ Position title: \_\_\_\_\_  
Address: \_\_\_\_\_  
Suburb: \_\_\_\_\_ Postcode: \_\_\_\_\_  
Telephone (W): \_\_\_\_\_ (AH): \_\_\_\_\_ (M): \_\_\_\_\_  
Fax: \_\_\_\_\_ Email: \_\_\_\_\_

<b>WATER COOLING SYSTEM DETAILS (Please list all – Attach additional sheet if required)</b>	
Number of Towers:	<input type="text"/>
System make:	_____
System model:	_____
System location:	_____
Name of servicing company:	_____
<b>CHECKLIST FOR REGULATED SYSTEMS</b>	
<b>PUBLIC HEALTH ACT, 2010 – DEFINITIONS</b>	
Water Cooling System (which includes a cooling tower and associated equipment and pipe water cooling tower) means:	
a) A device for lowering the temperature of water or other liquid by evaporation cooling; or	
b) An evaporative condenser which incorporates a device containing a refrigerant or heat exchanger.	
<b>CHECKLIST</b>	
All systems MUST satisfy the requirements of Public Health Act, 2010 and Public Health Regulation, 2012.	
This form must be completed in its entirety and returned to Council together with the items listed in the checklist below:	
<b>Cooling Towers</b>	
<input type="checkbox"/> Certificate for the Process of Disinfection	<input type="checkbox"/> Site plan/hand drawn map showing: <ul style="list-style-type: none"> <li>• Location of system/s</li> <li>• Access point</li> </ul>
<b>SIGNATURE:</b>	
Applicant's signature: _____	Date: _____
<b>ENQUIRIES</b>	
For assistance with completing this form or for further information regarding Regulated Water Cooling Towers, please call Council's Environment and Health Officers on 6801 4000.	
Please send your completed registration form to:	
Mail:	Environmental Services Division Dubbo Regional Council PO Box 81 DUBBO NSW 2830
In person:	Customer Service Centre – Dubbo Office OR Customer Service Centre – Wellington Office Cnr Church and Darling streets, Dubbo Cnr Nanima Crescent and Warne Street, Wellington
Fax:	02 6801 4259
Email:	council@dubbo.nsw.gov.au
Dubbo Regional Council is authorised under the Local Government Act, 1993 and the Public Health Act, 2010 and is responsible for the surveillance and enforcement of Regulated Premises in the Dubbo Local Government Area.	
<b>OFFICE USE ONLY</b>	
Rego No: _____	Receipt No: _____ Date: _____