Legionella and the role of Drift Eliminators

Drift eliminators are the most critical component in a cooling tower relating to health and safety.

Legionella bacteria in cooling towers is controlled by two critical elements:

1. The water treatment program - the first line of control.
2. The function, design and condition of drift eliminators - the second line of control.

What if the water treatment program fails for a few days?

This could be due to:

- Power loss to the chemical dosing equipment (tripped fuse)
- Empty chemical drums
- A broken plumbing line from the dosing equipment to the cooling tower

If the water treatment program fails in any way, drift eliminators are the back-up control measure. They are the last line of defence against Legionella bacteria.

Drift eliminators are extremely important in the attempt to prevent Legionnaires’ disease. This is because they restrict water droplets from leaving the cooling tower via the force of the fan. The droplets, known as ‘drift’, have the potential to harbour bacteria and pathogens such as Legionella.

These droplets can be inhaled by persons within a two kilometre radius.

The drift eliminators are designed to control these droplets from becoming airborne and transmissible to people in the area, thus reducing the risk.

Excessive drift loss occurs in the following instances:

- If drift eliminators are not fitted correctly; or
- If drift eliminators are damaged, scaled, dirty, corroded or brittle.

It is highly recommended that they be replaced if defective; that they be removed and cleaned regularly; and inspected to ensure they are fitted correctly.

How often are your drift eliminators checked and maintained?

Best practice is three monthly, in line with cooling tower manufacturers’ specifications, as generally stated in their operation and maintenance manuals.

The routine cooling tower clean is a very good time to remove, inspect and clean the drift eliminators.

We also recommend that photos are taken at this stage to prove that they are in good order. This is part of Coolclean’s standard routine clean procedure.

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Legionella and the role of Drift Eliminators (contd)

As a cooling tower specialist company, our focus is on all cooling tower components, but especially on the last line of defence against Legionella, the drift eliminators.

No drift loss equates to no Legionella bacteria issue; very low drift loss equates to very low chance of Legionella.

Coolclean provides cleaning, repair and replacement of drift eliminators.

We supply quality PVC drift eliminators, which are rated at a maximum drift loss of 0.001% of the recirculated water rate. This is well within Australian Standard requirement of 0.002%.

In summary, well maintained drift eliminators stop drift loss and control risk:

- Preventing the spread of Legionella bacteria
- Improving system efficiency
- Saving on water and reducing loss of treatment chemicals
- Avoiding damage to nearby roofs, buildings and cars - from chemicals contained in excessive drift

Contact us for assistance or advice.

Drift Eliminators

Coolclean offers a complete line of Counter Flow and Cross Flow drift eliminators. These products are designed to achieve maximum drift removal with the lowest pressure drop. We provide cellular designs which facilitate field trimming and installation, as well as blade designs.