



## SAFETY ALERT: LEGIONELLA

When the (drinking) water contains Legionella bacteria, it is dangerous if water mist can be inhaled (such as in the shower or via the air conditioning). The bacterium settles in the lungs, causing someone to become infected. The first symptoms (incubation period) appear between 2 and 19 days.

The Legionella flu (Pontiac) resembles a normal flu with symptoms such as fever, headache, muscle aches and cough. This flu usually goes away without treatment. The Veterans' Disease (legionnaire's disease) starts with the flu symptoms and can then spread to pneumonia and fever above 39°C. The disease can only be detected through a blood or urine test and can be treated well with antibiotics. Legionnaires' disease is fatal in 5 to 25% of cases.

It is important that cold water does not heat up (< 25°C) and warm water does not cool down (> 60°C), to prevent sediment or biofilm and to avoid water stagnation.



*Left as it should be, right with legionella contamination (Maritiem Courant Jan 2020).*

### POSSIBLE DANGERS

- Contamination
- Legionella flu
- Can lead to Veterans' disease, a serious illness
- Can lead to death

### MEASURES

#### Prevention

- Drawing up a RI&E (legal obligation) and Legionella management plan;
- Crew training;
- Descale shower heads regularly;
- Weekly flushing of tapping points (15 minutes at a minimum of 60°C). Also think of emergency and eye showers on deck;
- Circulation of the drinking water;
- Filters (regular cleaning and renewal);
- Use of UV light;
- Regular (monthly) descaling of the UV lamp holder;
- Inject with chlorine.

#### Mitigation

- Anti-Legionella shower heads;
- Carrying out drinking water tests (risk based) by a competent organization;
- Add chlorine, fights legionella, but is broken down in a few weeks. (NB Chlorine is harmful to health, creating other risks);
- Be alert to symptoms of illness of crew members (such as fever, headache, muscle aches and coughing);
- Contact your GP in case of contamination or in doubt about this.

#### Referenties/Bronnen:

[Centers for Disease Control and Prevention](#) - English

[Stichting Veteranenziekte](#) - Dutch

[Ministerie Infrastructuur en Milieu - Legionellapreventie in waterinstallaties](#) - Dutch

[www.infektionsschutz.de](http://www.infektionsschutz.de) - German



## ATTACHMENT: INPUT LEGIONELLA MANAGEMENT PLAN

In addition to the measures that are taken, the following elements can be included in the legionella management plan:

- A systematic description of the installation(s) concerned;
- A description of the critical aspects of the installation(s), including the situation in which an installation or parts of an installation are at a standstill;
- A drawing or diagram with the current layout of the installation, including the parts that are temporarily out of use;
- A description of the correct and safe operation of the system;
- A description of the regular maintenance and management of installations;
- An overview of data on the nature and quality of the water used for installation replenishment;
- A description of all checks to be performed, including checking for the presence of legionella (to check the effectiveness of the measures);
- An overview of the action limits that are used (physical, chemical and microbiological, including legionella) for which (emergency) measures are taken, including a description of those (emergency) measures. For air humidification installations and other water installations, 100 kve/l is a prescribed action level at which measures must be taken or existing measures must be tightened up;
- A description of the measures taken in the event of calamities;
- A log, in which notes are made of:
  - the implemented control measures;
  - the maintenance work performed;
  - the changes made to the installations;
  - the changes made to the maintenance of installations;
  - the results of checks performed (analysis results and inspection results);
  - general details about the operation of the installations.