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FLEMISH AUTHORITY

Well-being, Public Health, and Family Matters

**23 JANUARY 2018 Ministerial Order approving the Bello Zon® device as an alternative management measure under the Legionella decree**

THE FLEMISH MINISTER OF WELL-BEING, PUBLIC HEALTH AND FAMILY MATTERS,

In light of the decree of 21 November 2003 on preventive health policy, articles 39 to 43 inclusive;

In light of the order of the Flemish Government of 9 February 2007 on the prevention of Legionnaire's disease in public spaces, articles 19 to 21 inclusive (Legionella Decree);

In light of the order of the Flemish Government of 25 July 2014 determining the powers of the members of the Flemish Government,

Be it hereby decreed:

Article 1: In this decree, the following terms shall be understood to mean:

1. Division of Prevention: the prevention division of the Medical Care and Health Agency, established by the Flemish Government Decree of 7 May 2004 establishing the internal autonomous agency “*Zorg en Gezondheid*” (Health and Care), which monitors compliance with the Legionella decree.

2. The Bello Zon® device: a device, developed by ProMinent, that disinfects water intended for human consumption by injecting a ClO<sub>2</sub> solution into the cold water pipe; for which the “Protocol for approval of alternative management measures (appendix 1 to the Legionella decree)” was performed, and for which an opinion was issued by the High Council of the public health (opinion no. 9462).

3. management measures: measures consisting of monitoring, precautionary and corrective measures;

4. monitoring measures: measures for verifying whether the operating conditions of facilities producing aerosols are such as not to create circumstances stimulating the development of Legionella bacteria;

5. corrective measures: measures to be taken to reduce the hazard to an acceptable level when a situation of undesirable Legionella bacteria growth is detected;

6. Legionella Decree: Flemish Government Decree of 9 February 2007 on the prevention of Legionnaire's disease in public spaces;

7. preventive measures: the aspects of the methods of use involving structural measures and management measures aimed at limiting the risk of Legionnaire's disease

8. structural measures: measures for adapting aerosol producing facilities to combat the growth of Legionella bacteria;
9. precautionary measures: measures to be taken to prevent certain operating conditions that may to a risk situation for the growth of Legionella bacteria;
10. water supply: a water distribution system, from the point of supply or, in the case of private well water, from the point of the water catchment, to the water intake point, including all parts connected to it, with the exception of systems where only toilets or sinks, without shower systems are connected.

Art. 2. The Bello Zon® device has been approved as an alternative management measure to manage Legionella pneumophila in water supplies.

The Bello Zon® device may only be used if all of the following conditions are met:

- a. a detailed management plan is drawn up as part of the installation of the Bello Zon® device. The management plan includes, at least:
  - a.a. a thorough assessment of the water supply, which allows for a risk analysis;
  - a.b. a description of general prevention measures in place in the context of the Legionella issue, and in particular all preventive measures to be taken in order to ensure the efficient operation of the Bello Zon® device. When necessary, structural measures shall be taken, among others, for the continuous discharge of all elements involved in the installation; a rinse program is established for all intake of water that is not used or is insufficiently used.
  - a.c. a detailed record in which the execution and monitoring of all the management measures listed in the management plan are recorded;
- b. the water supply and the Bello Zon® device must be regularly maintained; the operation of the device and the dosage are continuously monitored.
- c. The Bello Zon® device is adapted to any potential infrastructure modifications relating to the sanitary installation;
- d. the water supplier and the supervisor (see Article 41 of the Legionella Decree) are informed immediately in writing when placing the Bello ZonR appliance in the water supply;
- e. a water pressure regulator is installed on the supply line for the unit, and a prefilter is installed before the ClO<sub>2</sub> measuring probe.
- f. in places where the Bello Zon® device is used, the drinking water standards referred to in Annex 1 to the Flemish Government Decree of 13 December 2002 regulating the quality and supply of water intended for human consumption must be respected at all times. A meticulous method of monitoring of water quality must be described in the management plan. Chlorine dioxide content (up to 0.4 milligrams/l after injection and up to 0.2 milligrams/l at the most distant intake), as well as chlorite and chlorate content, is frequently monitored before and after operation, both at the starting point and at the end points of drinking water systems. After the values have stabilized, the measurement frequency can be reduced to that of the usual drinking water tests.

g. sodium chlorite meets the NBN EN 938 standard and hydrochloric acid meets the NBN EN 939 standard.

h. the operation of the automatic measuring device is regularly verified using a calibrated manual measuring device. It is recommended that the device be connected to a building management system.

i. if the results of the analysis demonstrate a result of greater than 1000 colony forming units (CFU) of *Legionella pneumophila* per litre present in the water supply, the cause must be sought and all necessary measures must be taken to reduce the concentration of *Legionella* bacteria to less than 1000 CFU per litre.

Art. 3. When the safety or quality of the water supply can no longer be guaranteed as a result of the use of the Bello Zon® device, approval may be revoked.

Art. 4. Approval of the Bello Zon® device as an alternative management measure to manage *Legionella pneumophila* in water supplies, fulfils the operator's obligation involving of the application of Article 6, §5 or Article 13, §5, of the Legionella decree. All other obligations related to the application of the Legionella order must be completely fulfilled.

Art. 5. This decree comes into force on the day following its publication in the Moniteur Belge [Belgian Official Journal].

Brussels, 23 January 2018.

The Flemish minister of Well-being, Public Health, and Family Matters,

J. VANDEURZEN