

New Cooling Tower Regulations Go Into Effect

Rules governing cooling towers and health care facilities designed to reduce legionella infection

ALBANY, N.Y. (July 19, 2016) - The New York State Department of Health (NYSDOH) today announced that final regulations protecting against *Legionella* in every cooling tower, and all general hospitals and residential healthcare facilities in the state have gone into effect.

The new regulations grew out of emergency regulations the Department adopted last summer when 138 residents of the South Bronx were sickened with legionellosis and 16 people died. The source of the South Bronx outbreak was determined to be a cooling tower. Cooling towers are part of a recirculated water system incorporated into a building's cooling, industrial, refrigeration or energy production system. Cooling towers are a potential source of *Legionella* and were not regulated by the state prior to August 2015. The regulations require that cooling towers be registered, inspected and tested for *Legionella*.

The regulations also require all general hospitals and residential health care facilities to perform *Legionella* culture sampling and analysis of their drinking water systems. A recent Centers for Disease Control and Prevention (CDC) review of legionellosis investigations conducted by CDC staff between 2000 and 2014 (CDC; *Morbidity and Mortality Weekly Report*, Vol. 65, June 7, 2016) revealed that 57 percent of legionellosis cases and 85 percent of fatalities were associated with health care facilities.

"Requiring registration and up to date maintenance plans allows for more aggressive monitoring of cooling towers, hospitals, and residential health care facilities," said Commissioner of Health Dr. Howard A. Zucker. "These new regulations enable us to reduce exposure to *Legionella* and prevent illnesses that can be fatal for some people."

Legionella occurs naturally in the environment, usually in water. If cooling towers are not operated and maintained properly, bacteria such as *Legionella* can grow in the water and be dispersed into the air. People can get legionellosis when they breathe in mist containing the bacteria.

Most people have been exposed to *Legionella*, but healthy people usually do not get sick after exposure. People at higher risk of illness include those 50 years of age or older; current or former smokers; those with a chronic lung disease such as COPD (Chronic Obstructive Pulmonary Disease, which includes chronic bronchitis and emphysema); those with a weakened immune system from diseases such as cancer, diabetes, or kidney failure; and people who take drugs that suppress the immune system such as chemotherapy or treatments given after a transplant operation.

Under the new regulations, owners of cooling towers must:

- Register cooling towers in a statewide electronic system. New towers must be registered prior to initial operation and all tower registrations must be updated in the system whenever ownership changes.
- Inspect cooling towers prior to seasonal start-up, following maintenance, and at intervals no greater than 90 days while in use. The purpose of the inspection is to check for deficiencies or problems.
- Have an updated maintenance program and plan by September 1, 2016 that includes a schedule for routine bacteriological culture sampling, routine *Legionella* culture sampling and analysis, and immediate *Legionella* culture sampling and analysis under specific conditions.
- Conduct *Legionella* culture sampling and analysis within two weeks after start-up for seasonal towers

or within two weeks of start-up following maintenance for year-round towers and at intervals not to be greater than 90 days thereafter. *Legionella* culture sampling and analysis is required where NYSDOH or a local health department determines that one or more cases of legionellosis is or may be associated with a cooling tower. Bacterial culture sampling and analysis must be conducted at intervals not to exceed 30 days while the cooling tower is in use.

- Use a laboratory approved by NYSDOH to perform *Legionella* culture analyses.
- Respond appropriately to any elevated *Legionella* culture sampling results.
- Notify the local health department within 24 hours of getting a *Legionella* culture sample result exceeding 1,000 colony-forming units (CFU) per milliliter (mL).
- Use only pesticide applicators or technicians certified by the state Department of Environmental Conservation to apply biocides for disinfection.
- Certify by November 1st each year that a cooling tower has a maintenance plan, that it has been followed and that all requirements of the regulation have been met.

The new regulations also require hospitals and residential health care facilities to:

- Perform or update an environmental assessment by September 1, 2016. The purpose of this assessment is to evaluate the building and the potable water systems, and identify sampling locations.
- Adopt and implement a sampling and management plan by December 1, 2016 for potable water systems, which includes routine *Legionella* culture sampling and analysis and immediate *Legionella* sampling and analysis under specific conditions, including where NYSDOH determines that one or more cases of legionellosis is or may be associated with the facility.
- Conduct *Legionella* culture sampling and analysis at intervals no greater than 90 days for the first year and annually thereafter. Potable water systems that serve stem cell or organ transplant patients must be sampled and analyzed at intervals not to exceed 90 days.
- Use a laboratory approved by NYSDOH to do *Legionella* culture analyses.

Provide appropriate response actions for *Legionella* culture sampling results. To register a cooling tower, visit: <http://ct.doh.ny.gov/>

To view the regulations and learn about legionellosis, see:

http://www.health.ny.gov/regulations/recently_adopted/docs/protection_against_legionella.pdf

To view the cooling tower registry, visit: <https://health.data.ny.gov/>