

LEGIONELLOSIS - USA (04): (NEW YORK) SHREDDER

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A ProMED-mail post <<http://www.promedmail.org>>

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<<http://thedailyreview.com/news/five-cases-of-legionnaires-disease-confirmed-at-local-shredding-plant-1.1193128>>

Upon investigation into reports of workers at Upstate Shredding's Route 38 Owego, New York, facility contracting Legionnaires' disease, it was confirmed on Monday [22 Aug 2011] that 5 workers were diagnosed with the disease, and that measures have been put in place to avoid future outbreaks.

According to Johannes Peeters, from Tioga County [New York State] Environmental Health, there have been 5 confirmed cases of the disease since 2009. But Peeters also noted that only the employees working at the shredder were at risk, and that there have been protective measures put in place to eliminate any future outbreaks. "The only concern for this is for the people working directly at that location," said Peeters.

And the officials at the National Institute for Occupational Safety and Health (NIOSH) out of West Virginia agreed. Rachel L. Bailey, a Public Health Service Medical Officer for the Centers for Disease Control and Prevention at NIOSH, also confirmed the 5 known cases of Legionnaires' disease. Bailey also further explained what might have led to the outbreak at the plant.

"Water is used during the shredding process," she stated. She continued, "When the shredder is operating, municipal water is pumped into the shredding chamber through pipes fitted to each side of the shredder head to provide cooling and lubrication. The interior of the shredding chamber can reach 500 deg F and much of the water evaporates during the shredding operation; however, the shredded material that exits the shredder remains wet as it proceeds on the conveyor system to be separated into ferrous and non-ferrous portions."

During a 1 and 2 Jun 2011 site visit made by NIOSH to the Owego facility, which was requested by owner Adam Weitsman in May of 2011, representatives observed multiple pools of standing/stagnant water around the facility. Bailey noted that stagnant water is an ideal environment for Legionella growth if heated such as by sunlight.

Water samples were taken from several pools of standing water, and the laboratory identified Legionella bacteria in all those samples. They also noted that Legionella was also identified in water dripping from the shredder onto the exit conveyor belt that contains the shredded material as well as in a swab sample taken from a conveyor belt in the picking shed at the facility. A NIOSH report, dated 22

Jul 2011, confirmed that all the workers who were diagnosed with Legionnaires' disease worked in or around standing water and/or performed picking activities that involve manually removing copper and other materials observed passing on a moving conveyor. But standing water, according to Bailey, is the culprit in this case.

The July report also noted that the workers that contracted the illness prior to the testing at the facility, were subsequently tested for Legionnaires' disease. Each test, according to Bailey, came out positive.

With their interim letter and report sent to Adam Weitsman in July, NIOSH made recommendations for the facility -- recommendations that Weitsman has since put in place. The report recommended that all standing water be eliminated in the facility, that grading be done around the grounds to eliminate standing water, that workers in the specific areas where the *Legionella* bacteria was confirmed wear protective respirators, and that conveyors and the immediate area surrounding them be disinfected with a chlorine mixture.

In an interview with Weitsman on Wednesday [24 Aug 2011], he stated that he was working with these agencies to correct the problem. "We had a case awhile ago," said Weitsman, "and we thought it was the flu." Weitsman grew concerned when others became ill, and that is when he requested that NIOSH come in and examine things. According to Peeters from Environmental Health, Weitsman was concerned, and he was the one who made the call. Weitsman also talked of things he has put in place since the discovery of the *Legionella* bacteria within the plant. A recent purchase of a USD 21 million shredder that utilizes 10 percent of the water that the old shredder utilized, according to Weitsman, will help out tremendously. "The old shredder was 15 years old," said Weitsman. "The water could have been sitting in there for a very long time."

Weitsman has also hired a former official from the Occupational Safety and Health Administration (OSHA) to serve as his safety coordinator, and has enforced the wearing of protective respirators by employees working in the specific area. Weitsman also noted that they have started grading to eliminate pools of standing water. The last confirmed case of Legionnaires' Disease at the site, according to NIOSH, was in mid-July, and followed their visit. The precautionary recommendations to Weitsman were implemented shortly after.

NIOSH also noted that there is no risk of the *Legionella* bacteria becoming airborne and spreading into the community as they do not utilize cooling towers. According to Bailey, if *Legionella* is spread through cooling towers, it can travel as far as 3.7 miles away, as was documented in an epidemic of Legionnaires' disease that took place in Pas-de-Calais in northern France in 2003-2004.

Legionnaires' disease is an infection of the lungs and is a form of pneumonia; it is caused by a type of bacteria called *Legionella*. The *Legionella* bacteria are found naturally in the environment, usually in warm, watery environments. It can also be found in soil. People get Legionnaires' disease when they breathe in a mist or vapor (small droplets of water in the air) that has been contaminated with the bacteria. Legionnaires' disease can be very serious and can cause death in up to 5 percent to 30 percent of people with the disease. It is treated with antibiotics.

The sooner antibiotic therapy is started, the less likely the chance of serious complications or death. Depending on the severity of symptoms, the person may need to be admitted to the hospital and given intravenous fluids and oxygen. To learn more about the disease and its risks, visit [http://www.cdc.gov/legionella/patient\\_facts.htm](http://www.cdc.gov/legionella/patient_facts.htm).

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[For a discussion of legionellosis, see ProMED-mail post Legionellosis Spain (05): Madrid 20101115.4142.

Tioga County is located in the Southern Tier region of New York State, west of the city of Binghamton and directly north of the border with the state of Pennsylvania ([http://en.wikipedia.org/wiki/Tioga\\_County,\\_New\\_York](http://en.wikipedia.org/wiki/Tioga_County,_New_York)). The Susquehanna River flows into Pennsylvania from this county. Owego is a town in Tioga County, New York, USA, with a population of 20 365 at the 2000 census ([http://en.wikipedia.org/wiki/Owego\\_town,\\_New\\_York](http://en.wikipedia.org/wiki/Owego_town,_New_York)). A HealthMap/ProMED-mail interactive map showing the location of Owego can be accessed at <http://healthmap.org/r/18gY>. - Mod.ML]

[see also:

Legionellosis - USA (03): (NV) hotel 20110716.2159 Legionellosis, nosocomial - USA (03): (OH) 20110315.0831 Legionellosis, nosocomial - USA (02): (OH) 20110310.0775 Legionellosis - USA (02): (CA) conference, susp. 20110304.0713 Legionellosis, nosocomial - USA: (OH) 20110303.0692 Legionellosis - USA: (CA) conference, susp. 20110214.0494

2010

Legionellosis - USA (02): (MI) 20100728.2536 Legionellosis, nosocomial - USA: (WI) 20100315.0834

2009

Legionellosis, nosocomial - USA: (GA) 20090212.0635 Legionellosis, nosocomial, fatal - USA: (GA) corr 20090208.0573 Legionellosis, nosocomial, fatal - USA: (GA) 20090207.0555

2008

Legionellosis - USA (03): (NJ) nosocomial, fatal 20081005.3149 Legionellosis - USA (02): (NY) 20080824.2640 Legionellosis - USA: (NY) 20080814.2515

2006

Legionellosis, hotel - USA (FL) 20060205.0374

2005

Legionellosis - USA (SD)(02): fountain 20051031.3175 Legionellosis - USA (SD) 20050824.2505  
Legionellosis, Legionnaires - USA (PA)(02) 20050812.2363 Legionnaires - USA (PA): alert 20050811.2349  
Legionellosis, hospital acquired - USA (NY) (03) 20050719.2082]  
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