

Our ref: WK/201312448
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Nigel Stephenson
Lafarge Tarmac Trading Ltd
Portland House
Bickenhill Lane
Solihull
B37 7BA

1st April 2014

Dear Nigel

**The Pollution Prevention and Control Act 1999
The Environmental Permitting (England and Wales) Regulations 2010, as amended.
Lafarge Tarmac Roadstone Coating Plant EP45/5/LB**

Further to the inspection carried out on 28th March 2014 at the above site I can confirm that the installation is generally compliant with the permit reference EP45/5/LB. However, I regret to inform you that Condition 13 is currently not being complied with. Condition 13 states that:

'All areas where there is regular movement of vehicles shall have a consolidated surface capable of being cleaned, and these surfaces shall be kept clean and in good repair.'

I understand that recycled rain water is used in the dust suppression system and there have been concerns about the potential existence of legionella in the water. Mr Reader confirmed that he had been asked to use a manual water bowser rather than the automated dust suppression system. This has clearly had an effect on the condition of the yard which is dusty and in breach of the condition. I appreciate the concerns regarding legionella and understand that you are in the process of finding a solution to the problem. I enclose a summary of the risk and controls in relation to legionella which you may find useful. In summary, you will be obliged to undertake a risk assessment and implement controls were appropriate and necessary. I recommend that you contact the HSE for more information in this regard.

In the meantime, I recommend that the water bowser is used more frequently and that the yard is swept more often to help prevent dust accumulation. I look forward to your comments on this matter and will make another check visit in due course.

The permit will need to be varied again to take into account the fact that PFO is no longer used and had been replaced by gas. I must take this opportunity to remind you of your obligations under the above legislation to inform the Local Authority of any changes to the process as and when they occur.

Yours sincerely

Louise Burns
Environmental Health Officer
Environmental Health

Legionnaires in the Water Tank

The Management of Health and Safety at Work Regulations 1999
The Control of Substances Hazardous to Health Regulations 2002 (as amended)
Quarries Regulations 1999

The Risk

Legionella can lead to a number of infections ranging from short, febrile illnesses to serious pneumonia, known collectively as 'legionellosis'. Cases of pneumonia are classified as legionnaires Disease, which has a 10-15% fatality rate. Over 45s, smokers and heavy drinkers are more vulnerable.

The main factors affecting the risk level posed by legionnaires:

-In can be introduced by the water supply or external contamination.

-Bacteria colonise and multiply between 20 and 45°C.

Deposits and materials can form a source of nutrients for the bacteria to grow, including rust, sludge, scale, organic matter and biofilms. Especially in open topped vessels

-A means of creating and spreading breathable droplets.

-Exposed persons

Systems such as this one typically use non mains water, which is usually recycled and prone to contamination. The system requires a risk assessment because it meets so many of the risk criteria, the risk is reasonably foreseeable, so there is a duty to carry out a risk assessment. The risk assessment should consider:

The source of the water supplied to the vessel

The potential for microorganisms to grow

The potential release

The likelihood of exposure.

Controls

Temperature

Should be the main control, avoid storage between 20 and 45°C, in the U.K the ambient water temperatures rarely rise above 20°C. The smaller the vessel for storage the faster the temperature will rise. Shading/insulating the tanks, pipes and hoses will reduce the temperature rise. The colour of the vessel will also influence temperature. Legionella are rapidly killed above 60°C but this will likely be impractical to implement. It is recommended that temperatures of stored water are monitored:

Monthly between October and March, weekly between April and August and up to daily during hot spells. Checks should be made when temperatures will be highest. Where temperatures are found to be above 20°C for more than 2 days, additional control measures should be considered. For example draining warmed water from the vessel or leaving it empty if not in use or replacing the water with cool water. If a drain is used make sure the system is fully drained.

Nutrients

To reduce the build up of nutrients that support the growth of legionnaires:

-Add a lid to open top vessels

-Implement inspection routine

-Drain and clear vessels when deposits form

-Maintenance of storage vessel to limit corrosion

-Check nozzles for scale build up, clear the nozzles when necessary

Stagnation

Standing water increases the risk of microbial growth and is prone to heat gain. Match capacity to demand.

Microbiological analysis

Not recommended routinely as it is expensive and requires outside expertise, the above controls are most important. However if there is concern, 'dip slides' can be used to get an indication of the overall level of control, without the need for a laboratory.