

JUNE 2018

Evaluation of the Risk of Exposure to Biological Agents in production companies

INAIL has made available in 2017 a software application for the assessment of biological risk in healthcare environments. The activities carried out in the health services (hospitals, clinics, dental offices, assistance services) are among those that may pose a risk of exposure to biological agents for all employees employed therein. But even in the productive, engineering and manufacturing sectors in general, we are exposed to this risk, even if the exposure does not concern all the workers but certainly some work in the company must also be evaluated in this sense.

MTM Consulting can follow your company in managing this specific theme, through the use of evaluation methods recognized by ARPA and INAIL, creating specific work procedures and inspection for your company.

Biological risk means the probability that an individual will come into contact with a pathogenic organism, become infected and contract an illness. The risk is potentially always present in all living and working environments and the Consolidated Law Decree 81/2008 dedicates an entire title to it, Title X.

The INAIL recalls how except in a few exceptions related to some activities, the risk from biological agents is often underestimated in many workplaces. Raw materials or substances used, biological fluids, organic dust, animals, insects, plant substances, poor hygiene or bad management of aerulic plants can indeed be sources of potentially dangerous biological contamination. The biological risk for non-employees is often environmental and then, transversal; therefore, there is no work environment in which this risk can be ignored.

The starting point is therefore fundamental, for those companies that do not manipulate biological agents, is in fact the initial analysis of the possible exposure scenarios, indicating all the activities during which it is possible to incur contact with a biological agent.

ARPA and INAIL Liguria have developed a calculation algorithm that, through qualitative assessments, leads to a score associated with a risk value, similar to what is already widely used by classical methodologies for the risk assessment of exposure to chemical agents. The risk is calculated as a product of probability damage.

In particular is added the theme of the management of air conditioning systems, which can become, in case of poor or inadequate maintenance, the source of the spread of potentially pathogenic microorganisms that find ideal conditions for their development. With regard to the plant maintenance methodologies and the necessary timeframes to prevent these problems, a specific UNI EN 15780: 2011 standard was adopted by UNI: "Ventilation of buildings - Ducts - Cleaning of ventilation systems".



The assessment of business risks must therefore propose:

- an analysis of the possible environments and scenarios related to this type of risk;
- operational activities that can be carried out in relation to these scenarios and corporate environments;
- tasks shown as they can perform these activities or come into contact with them;
- a risk value evaluated with the quantitative / qualitative method;
- measures to be implemented, for example targeted cleaning / maintenance interventions or detailed surveys, to monitor the presence of dangerous sources;
- training and information dedicated to employees exposed.