

SAFETY AND HEALTH RISKS FOR WORKERS AT THE ANIMAL WASTE INCINERATION PLANT

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INTRODUCTION

When working in a plant for the treatment of any type of waste, it is necessary to provide employees with healthy and a safe environment, as well as the use of personal protective equipment [2, 4]. When providing working conditions and environment, it is necessary to implement prevention measures and minimize accidents and exposure to risks. An important aspect of risk prevention is also maximizing the professionalism and expertise of employees.

MATERIAL AND METHODS

Description of the work process of the Operator for the procedure of animal waste incineration: The animal waste incineration operator operates a small incineration plant of 150 - 400 kg of animal waste per hour of model INCINER8 Model I8-250 (incinerator) shown in Figure 1, depending on the type of animal material for incineration. Within the subject plant, reception (transport refrigerators), temporary storage (in a container-type refrigerator) and incineration treatment are performed. The plant in question is an actual plant for the incineration of animal material.

Method for risk assessment in the workplace and work environment: The probability of injury at work, damage to health or illness of employees related to work, caused by hazards and harms in the workplace and in the work environment or at work, is estimated based on the analysis of collected data on organization and working conditions, as well as professional findings (i.e. the existing state of safety at the workplace), which takes into account the frequency or duration of exposure to hazards and harms, as well as the state of protection, i.e. the level of danger to the employee in the workplace and work environment.



Fig. 1. Incinerator INCINER8 Model I8-250

CONCLUSION

In accordance with the obtained results for risk levels for the workplace Operator for the procedure of incineration of animal waste, i.e. given that the observed workplace with increased risk, it is necessary to further implement all applications presented in the results and discussion of risk assessment in the workplace and work environment and corrective measures that are subsequently defined in order to minimize the hazards and harms that have been assessed. The main measures for risk reduction are the use of assessed personal protective equipment and training of employees for safe and healthy work, as well as training for practical training with a knowledge test once a year. It is necessary to monitor the health status of employees with periodic health checks once a year. The most important purpose of occupational health and safety is its preventive action in order to prevent injuries at work and occupational diseases.

RESULTS AND DISCUSSION

Based on the observed work process of the incineration of animal corpses and remains operator, the possible dangers and harms that the employee may encounter during his work are defined. After defining the danger and harmfulness, the source of danger for a specific danger or harmfulness is identified. In order to more efficiently assess the risk at the workplace, the applied preventive measures provided by the employer are defined, which affect the assessment of the level of risk for a specific danger or harmfulness.

Based on the obtained results by risk assessment using the matrix method for the position of Animal Waste Incineration Operator, we can conclude that the observed workplace is a workplace with increased risk based on dangers and harmfulness in which we obtained a significant level of risk such as heat radiation and biological hazards. After the obtained results of risk assessment at the workplace and work environment, it is necessary to define corrective measures of protection at work that can contribute to the reduction of risk levels as well as deadlines for the application of such measures.