

## ANALYSIS OF THE OCCUPATIONAL SAFETY SYSTEM AT METALLURGICAL ENTERPRISES

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Occupational safety is a cornerstone of the uninterrupted operation of metallurgical production, as the level of risk in this industry remains quite high. Effective safety management reduces injuries, improves working conditions, and increases productivity. The purpose of this paper is to study and analyze the measures aimed at improving workplace safety at Ukrainian metallurgical plants, using the example of the company «ArcelorMittal».

The assessment of occupational safety conditions is based on current Ukrainian legislation, in particular, the Law of Ukraine «On Occupational Safety» [1], as well as other regulatory acts. Key measures include workplace certification, analysis of working conditions, and the implementation of internal control systems. For example, ArcelorMittal operates an internal safety monitoring system, which allows for the prompt identification of risks. The main occupational safety measures include [2]:

1. Use of modern personal protective equipment (PPE) in accordance with the standard DSTU ISO 45001:2019 [3];
2. Regular training for employees and management on occupational safety issues [1];
3. Automation of hazardous production processes;
4. Improvement of ventilation systems and modernization of equipment to reduce the impact of harmful factors.

The effectiveness of implemented safety measures is evaluated by analyzing changes in injury rates, the number of workplace accidents, and occupational diseases. According to ArcelorMittal, several years after the implementation of new safety practices, there has been a reduction in incidents, increased employee motivation, and decreased staff turnover [2].

Compliance with legislation is a fundamental requirement for successful business operations. It is advisable to continue adopting international safety standards, such as ISO 45001 [4], improve internal policies, and strengthen oversight, particularly of contractors working on the enterprise's premises. Improving occupational safety in metallurgical plants is an essential part of enterprise development. Innovative solutions, modern protective equipment, and continuous staff training help minimize industrial risks and contribute to a higher overall safety culture in the industry.

### References:

1. Law of Ukraine «On Labor Protection». URL: <https://zakon.rada.gov.ua/laws/show/2694-12>
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3. DSTU ISO 45001:2019 «Occupational health and safety management systems», URL: [https://dl.kname.edu.ua/pluginfile.php/264852/mod\\_resource/content/1/dstu\\_iso\\_45001\\_2019.pdf](https://dl.kname.edu.ua/pluginfile.php/264852/mod_resource/content/1/dstu_iso_45001_2019.pdf).
4. ISO 45001 «Occupational health and safety management systems. Requirements with guidance for use», URL: [https://dl.kname.edu.ua/pluginfile.php/264854/mod\\_resource/content/1/ISO%2045001%20engl.pdf](https://dl.kname.edu.ua/pluginfile.php/264854/mod_resource/content/1/ISO%2045001%20engl.pdf)