

Position paper 2024/156

IndustriAll Europe Charter for Health & Safety in Battery Production

Brussels, 12/04/2024

Every person has the right to work in a healthy and safe environment. For trade unions, workers' well-being has always been one of the top priorities. Trade unions work for ambitious legislation in the field of occupational safety and health and its enforcement, they empower their members to take action at the workplace and support them in engaging with employers. The responsibility for occupational safety and health lies with the employer.

Workers' and their representatives' active involvement and participation in the assessment, prevention and mitigation of hazards and of risks is absolutely essential. Their first-hand experience and expertise on the shop floor – operating machinery, handling materials and substances, etc. – is indispensable when companies design their work organisation and health and safety procedures. Workplaces must be adapted to the workers. Trade union representatives and representative organisations must have the right to conduct workplace visits and inspections to identify hazards and ensure compliance with safety standards. They must have the power and the tools to stop their work in case of serious or imminent risk and to move away from the danger zone.

Working conditions at battery production sites, risks to health and safety and mitigation measures

Producing batteries in giga factories presents several risks to workers' health and safety. One significant concern is exposure to hazardous chemicals or carcinogens, such as lithium, cobalt, nickel and their chemical compounds¹. Punctual or prolonged exposure to these substances can lead to respiratory problems, skin irritation, and long-term health issues like cancer.

For example, exposure to nickel has been linked to lung fibrosis, kidney and cardiovascular diseases and cancer of the respiratory tract. Nickel and cobalt are suspected to be reprotoxic, i.e. to adversely affect both male and female fertility as well as the development of fetuses.

¹ It is also important to consider the form that these substances take particularly when they are present in workplace in powder form. Some, such as copper, are harmless in their usual form but toxic when in powder or dust form.

Lithium-ion batteries, widely used in various electronic devices and electric vehicles, contain lithium compounds that can be hazardous if mishandled. Workers involved in handling lithium components or electrolytes may face risks of fire, explosion, or chemical burns.

Many battery production processes involve the use of solvents for cleaning, degreasing, or other purposes. Workers exposed to solvents such as benzene, toluene, or xylene may experience health effects such as headaches, dizziness, long-term neurological damage or cancer – sometimes detected many years or decades later.

Additionally, high-speed machinery and process automation pose risks of accidents and injuries to workers. Machinery malfunction, inadequate training, and fatigue can contribute to workplace accidents, ranging from minor incidents to severe injuries or fatalities. As the industry is growing, many factories have started producing batteries while they are still expanding, i.e. construction is going on at the same time. This has led to some serious accidents. The associated hazards and risks must therefore be taken into account when devising protective measures.

In certain battery production facilities, there are extremely high hygiene demands. This means that to produce batteries, the workers will have to spend a lot of their working hours in rooms with zero humidity and zero dust. Without the proper personal protective equipment (PPE) and additional, sufficient breaks, this situation can have serious consequences for health and cause damage to the mucous membranes, nose bleeds, respiratory tract diseases, as well as skin and hair problems.

To mitigate these risks, several measures can be implemented:

First of all, workers must receive comprehensive information about all the dangers and risks associated with their workplace, complemented by thorough training on handling hazardous materials safely, operating machinery, and following proper safety protocols. Regular refresher courses, adapted to different target groups, should be conducted to reinforce safety procedures.

Regular monitoring of air quality in the workplace, installation of proper ventilation and filtration systems, and decreased exposure, in length and intensity, to hazardous substances is essential. Enclosed workstations or automated processes reduce direct contact with chemicals. This sequence must be observed when selecting the protective measures: Substitution has priority over technical protective measures, these again over organisational protective measures and these over personal protective measures.

PPE, such as respirators, gloves, and protective clothing, can help to protect workers where exposure to raw materials and harmful chemicals cannot be prevented. Clear protocols for handling emergencies and spills must be in place.

Sufficient rest and break schedules prevent fatigue among workers, which can contribute to accidents. Regular breaks and facilities for rest and relaxation contribute to a safe workplace. The time spent in zero-humidity environments must be limited.

Open communication and feedback between management and workers regarding safety concerns help to minimise risks and maximise trust and sense of responsibility. Every company should have a system for reporting potential hazards or incidents and ensure that all reports are taken seriously and addressed promptly. Employees who prioritise safety in the workplace deserve recognition and rewards.

Comprehensive healthcare benefits to workers, including access to regular health screenings to monitor any signs of diseases related to exposure to chemical and carcinogenic substances and their accumulation ensure the long-term health of workers. Access to counselling and support services for workers who may experience stress or trauma related to their work environment address the psycho-social dimension. A risk assessment must be carried out before starting any activity.

IndustriAll Europe's demands to companies:

1. Strict compliance with occupational health and safety legislation, rules and standards.
2. Provide workers with comprehensive information and targeted training.
3. Implement all possible technical or organisational measures to remove or minimise the hazards and risks.
4. Provide PPE to everyone: respirators, gloves and protective clothing. PPE however should not be a "definitive solution". Technical and organisational protective measures take priority over PPE.
5. Involve trade unions in the decision-making process regarding hazard and risk identification as well as the elaboration of safety measures, and provide avenues for workers to voice their concerns without fear of retaliation or negative consequences. Allow their participation in the investigation of accidents.
6. Monitor air quality, establish ventilation, implement a break schedule, create infrastructure for adequate relaxation (break rooms, common spaces) and introduce hygiene standards (for example, clean changing rooms).
7. Continuously improve safety practices: regular evaluation and updating of safety protocols, new technologies to reduce worker exposure to hazards, sharing of best practices within the industry to drive collective improvement.
8. Take responsibility for the entire supply chain from raw material extraction via transportation to recycling and/or disposal. Work with suppliers to ensure ethical and sustainable practices throughout the supply chain, including fair labour practices and environmental protections.

Companies should incorporate worker health and safety into their broader Corporate Social Responsibility (CSR) initiatives and engage in collective negotiation with trade unions on occupational health and safety agreement. This includes setting ambitious goals for reducing workplace accidents and injuries, supporting workers' access to healthcare and education, and contributing to the development of sustainable and inclusive communities.

Nothing about us without us

All workers must receive comprehensive information about the hazards and risks at their workplace. They must be trained in how to safely use equipment and what personal protective equipment (PPE) is required. They need to know about their health and safety rights and responsibilities. Training and information must

be available in an easily accessible language – to be understood by non-native speakers, workers with dyslexia or different learning abilities. It must be clear whom to turn to if workers observe breaches or new risks.

Representatives of the management and unionised workers must regularly inspect the workplace together, to ensure that all risk mitigation measures are in place and to update them if necessary. Accidents and near misses are to be investigated with the participation of workers (representatives). Trade unions also call for regular external inspections by government labour inspectors. Instruments and procedures for workers to report safety concerns and incidents must be in place, and they should be clear, simple and easy to follow, irrespective of a worker's level of education and ability to read or write.