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**ELIMINATION OF THE HAZARDS FOR WORKERS AND MONITORING
THE SAFETY OF AGRICULTURAL MACHINERY AND EQUIPMENT**

Ye. I. MARCHYSHYNA, docent, Ph.D.
National University of Life and Environmental Sciences of Ukraine
E-mail: marchyshyev@gmail.com

Mobile machines such as tractors, front-end loaders, skid-steers, material handlers and forklifts are often used inside and outside agricultural installations for production, daily chores or intermittent maintenance activities.

Most of these machines are driven by internal combustion engines which produce carbon monoxide (CO) exhaust and damaging levels of noise when used inside buildings. As CO is colourless and odourless, the employer should ensure that whenever an internal combustion engine is operated indoors, that appropriate venting of exhaust takes place, and that CO monitors are in place to detect any enhanced levels of CO in the building.

Machines used in agricultural installations may also use buckets, forks or blades for handling manure, feed or other materials. Hazards for these activities may include being crushed by falling objects or materials from buckets and lifts, run-overs of co-workers or bystanders, machines slipping off the edges of ramps or building

drop-offs. When used outdoors, larger machines with buckets or other attached equipment may come into contact with overhead power lines, creating an electrocution hazard.

To reduce hazards and risks associated with machinery and equipment used in and around farm buildings and structures, employers should ensure that all self-propelled machines with buckets for lifting materials are equipped with a ROPS cab to protect against falling objects. The employer should ensure that ventilation inside all structures is adequate to combat CO concentrations or the time the machine is operated inside the structure is limited to prevent CO buildup. Cabs should be designed to mitigate noise exposure. Where that is not the case the employer should ensure that hearing protection is worn to protect against engine noise. If co-workers are necessary to help complete work tasks, they should wear hearing protection. Both the machine operator and the co-worker should use hand signals for communications.

The employer should organize vehicles' routes to avoid high noise areas and to mitigate workers' exposure to noise. The employer should ensure that workers are trained in the use of hand signals in noise situations. The employer should ensure that no bystanders are allowed inside the facility while machines are operating. The employer should ensure that warehousing facilities are constructed and operated in such manner as to protect the worker from traumatic and ergonomic injury.

References

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