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METAL WORKING FLUIDS (MWFS) EXPOSURES IN MACHINING APPLICATIONS OF WORKING ENVIRONMENT

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ABSTRACT: Millions of workers engaged in manufacturing parts for products such as automobiles, farm equipment, aircraft, heavy machinery, and other hardware are exposed to metalworking fluids (MWFs). The oil particles suspended in the industry atmosphere can affect the health of work force. The aim of present study is to identify the group of metalworking fluids in machining applications of pristine work environment. An intensive sampling method were taken as per the NIOSH standards in personal sampler and area/field sampler at the shop of machinery shells. The quality of sample results was also compared to various international standards and guidance on the MWFs. These guidelines were mainly indicate that the MWFs as administrative controls, engineering controls (machine enclosures and mist collector), personal productive equipment (PPE), health impairments and monitoring measures. According to the international standards the MWFs field survey has been taken from the check list methods upon which suggestions and recommendations were improved from the working environment. The present work is an innovative approach to reduce the particle size ranging from 0.1 to 10µm and improving the work zone environment in work force.

Keywords: *Metal Working Fluids (MWFs), Machines, NISOH standards, Particle size, work environment*