

# Human Factors in Studies of the Safety and Reliability of Agro-Equipment

Ben Yahia W\*\*\*\*\*, Polet P\*\*\*\*\*, Vanderhaegen F\*\*\*\*\*, Tricot N\*

*\*Cemagref, 92163 Antony, France, (e-mail: wided.ben-yahia, nicolas.tricot@cemagref.fr)*

*\*\* Univ Lille Nord de France, F-59000 Lille, France*

*\*\*\*UVHC, LAMIH, F-59313 Valenciennes, France, (e-mail: philippe.polet, frederic.vanderhaegen@univ-valenciennes.fr)*

*\*\*\*\* CNRS, FRE 3304, F-59313 Valenciennes, France*

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**Abstract:** This paper aims to show the importance of taking into account human factors in risk analysis. Safety analysis methods identify system failures and dangers, thus allowing risk to be analyzed. However, although erroneous human behaviour can affect the Human-Machine System (HMS), studies using safety analysis usually do not explicitly take the human factors into account. In fact, human operators constitute an important element for system safety since they simultaneously represents a system user and a system component. They manage and recuperate degraded system states, especially during unforeseen and/or unknown events. It is thus important to integrate human factors into safety analysis. This observation led to the development of human behaviour models and human reliability analysis methods. This paper presents the relevance of human reliability analysis methods for dealing with problems in the domain of agriculture and examines whether or not these methods can be applied to this domain.

*Keywords:* Safety analysis, Human reliability analysis, Human behaviour, Agro-equipment, Unknown situations/events.

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