OSART Good Practices
HUMAN-TECHNOLOGY-ORGANIZATION INTERACTION
Human factors management

Bugey, France

Mission Date; 2 -19 Oct., 2017

The plant's training department has used digital technologies in an innovative way to reinforce the use of human performance (HU) tools.

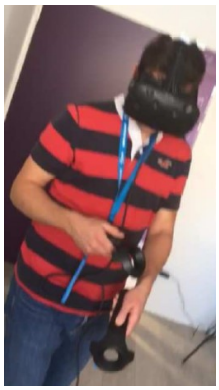
The plant has utilized digital technologies to improve the quality of its human performance training. The 3D immersion technology and camera goggles are used to complement initial and refresher training. These technologies have also enabled greater feedback from the instructor to trainees on the use of error prevention tools.

- 3D immersion technology and virtual reality:

The use of 3D immersion technology allows trainees to apply HU tools in a totally modelled environment, fully immersed, without exposing them to any kind of risks. The virtual consequence of not using these tools properly will be experienced by the trainee and will reinforce the importance of using HU tools when performing tasks in the field.

The current set of scenarios are designed to reinforce the use of self-check, peer check, situational awareness, and 3-way communication. This will be further developed in 2018, applying it to the plant's industrial premises (water-filled systems, relays, electrical panels, etc), thereby directly connecting 3D training to the plant environment. It can also be tailored to the various plant departments.

The modelling costs are similar to those of a real mockup and this virtual tool can be used throughout a fleet, which would limit the additional deployment costs to those of the computer and headset purchase.



- Camera goggles:

The plant training department has developed video googles for use during training of HU champions. The videos are used to replicate the activity as experienced by the trainee, showing what he/she has actually seen, said and heard. The goggles can be operated by the instructor using wifi. The videos are subsequently viewed during post training critique.