



HSE NEWS

WORKING FOR YOU TO KEEP YOU SAFE

Latest HSE Statistics YTD

	2013	2014
Workplace fatalities	1	4
Non-work related fatalities	7	3
Non-accidental deaths (NADs)	5	10
Lost Time Injuries (LTIs)	31	41
All injuries (excluding first aid cases)	129	123
Motor Vehicle Incidents (MVIs)	71	67
Roll over - MVIs	21	18
Serious MVIs	N/A	23
Lost Time Injury Frequency (LTIF)	0.28	0.35

Life Saving Rules Violations

YTD

Journey management	65
Speeding/GSM	31
Seatbelts	40
Overriding safety device	1
Working at heights	2
Permit	0
Confined space	0
Lock out tag out	0
Drugs and alcohol	1
Gas testing	0

Vehicle Class A/B Defect

YTD

Class A	204
Class B	3056

HSE TIP

Take a break from your machines. This gives your muscles, and your mind, a rest that they richly deserve.

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Important News



Ever wondered “Who on earth designed that?” or “How do they expect me to operate that?” Well in PDO those issues could soon be in the past thanks to our adoption of the new Human Factors Engineering (HFE) philosophy. It's a science that focuses on the interaction between humans and work systems in order to design the best possible human-machine interactions which will optimise both human and system performance and make it easier for you to work.



The key areas of Human Factors Engineering include:

- Design, location and accessibility of manual valves
- Control room and workplace design
- Human-machine interface design
- Labelling of facilities, equipment and piping
- Application of HFE in construction
- Design of skid package units

Non-compliance with these can ultimately lead to human errors which possibly can affect worker health and safety and can result in your injury or a major Process Safety incident.

What You Need to Know

Factors Affecting Human Performance:

- Work nature and design of the workplace
- People capabilities and experiences
- Organization: Working hours/shifts/staffing etc.
- Design of the equipment and the way it is laid out
- Surrounding environment: Lighting, noise, temperature etc.

Workplace Ergonomics:

- Ergonomics applies information about human behaviour, abilities and limitations and other characteristics to the design of tools, machines, tasks, jobs and environments for productive, safe, comfortable and effective human use.

Office Ergonomics Tips:

- Use an easily adjusted chair, display mount and keyboard
- Position the top of your monitor screen at eye level
- Position your monitor no closer than 50 cm from your eyes
- Use a wrist rest so your hands and wrists remain relaxed
- Stand and stretch your back and arms every hour.



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HSE Advice Note

Human Factors Engineering applies human factors knowledge to the design and construction of systems to ensure they **optimise the human contribution** while **minimising the potential for human error**.

It is applied to the design of work systems, workplaces and products, with the following objectives:

1. To increase the operational performance, safety, health and comfort of the work system
2. To reduce the likelihood of or prevent human errors
3. To enhance the productivity of human efforts
4. To enhance overall system performance by improving the ease and efficiency of use
5. To satisfy the needs of the operating population.

A driving philosophy behind the application of human factor engineering is that strong operational performance starts with good design and that an understanding of what constitutes good design requires a detailed knowledge of how humans interact within the work system.

Benefits of a proper integration of HFE in projects include:

- A reduction in CAPEX
- A reduction in the need for re-work during or after construction
- A reduction in the life cycle costs of operating and maintaining facilities (OPEX)
- Improvements in HSE performance and reduced operational HSE risk.

The key processes

It should be initiated in the SELECT phase of projects. The figure below summarises the activities to be conducted in each of the SELECT, DEFINE and EXECUTE phases of the project lifecycle.

In PDO these human factors will be considered and applied during the early design stage of all new facilities projects where subtle changes to the design can have a huge impact on equipment usability and on *your safety and health*. For existing facilities, site visits to different PDO assets have been conducted by Technical Safety Engineers for the purpose of HFE review.

Please refer to DEP 30.00.60.10 (HFE in Projects) for more information.

SELECT	Define	Execute
1. HFE Screening	1. HFE Standards baseline 2. HFE Design Analysis 3. HFE Design Verification (Initial) 4. Human reliability ALARP review 5. HFE Implementation plan 6. HFE Close-out report	1. HFE Design Analysis (Complete) 2. HFE Design Verification 3. HFE Plan for Construction 4. Support to final design HSE case 5. HFE Validation 6. HFE report

