

PAPER – DIESEL ENGINE SYSTEMS, COMPETENCIES

[Summary]

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In 472 BCE, Heraclitus of Ephesus said, “There is nothing permanent except change.”

Was Heraclitus thinking ahead to the age of science and technology in general and the underground mining industry in particular?

The underground mining industry keeps on changing. In general it is self-evident that most change has been for the better. We do have a safer and much more productive industry than we had even a few years ago.



All of the industry stakeholders have the opportunity to contribute to positive change in our industry. We can be a part of the process and to add our experience and knowledge to shaping that change.

In response to the statutory reporting of the failure of diesel engine systems in NSW there have been a number of changes made to provide the framework for the improved safety of diesel engine systems in underground coal mines.

The Australia Standard, Diesel Engine Systems for Underground Coal Mines - Maintenance (AS/NZS 3584.3) is being re-written to;

- Provide more detailed guidance for the development of maintenance management systems for diesel engine systems.
- Provide more detailed guidance for the processes and procedures required in maintenance and overhaul to better ensure ongoing safety and compliance.
- Introduce ‘Recognised Service Facilities’, with
 - Quality management
 - The tools equipment and instruments required
 - Competent Persons

One of the most significant issues in improving the maintenance and therefore the safety of Diesel Engine Systems is the competence of the people doing the work.

Competence may be acquired through experience, observation, the application of associated skills or by formal training.

Concurrently with the revision of the Australian Standard for the maintenance of diesel engine systems a suite of Competency Standards is being developed.



This work is being undertaken in co-operation with the industry Skills Council (Skills DMC). A reference group was formed and some of the draft competencies are now completed and may be reviewed and commented on by anyone interested. These documents may be found on Skills DMC's Website. *(Follow the link below)*

<http://www.skillsdmc.com.au/en/Training-Packages/Proposed-New-Mechanical-Engineering-Units.aspx>

These competencies include all of the elements of knowledge and skills required and will form the basis for training and assessment for those persons involved in the maintenance of diesel engine systems either at mines or within service organisations supporting the industry.

Units of Competency can be grouped (bundled) into Qualifications and these will be available for tradespersons and engineers within the underground coal mines and those organisations that supply and provide services to the industry. The Qualifications will be;

- Certificate III in Diesel Engine Systems for Underground Coal Mines
(for tradespersons and 'front line' supervisors), and
- Diploma of Diesel Engine Systems for Underground Coal Mines
(for Competent Persons and Engineers responsible for the management and operations of Recognised Service Facilities.)

The benefit of new competencies and well designed and executed training and assessment will be more competent tradesmen improving the safety of diesel engine systems in coal mines.

While the qualifications will be available for those who believe that they need or want such a qualification, people only need those competencies required to do the tasks that they are required to do in their daily work.

IMPROVED KNOWLEDGE AND SKILLS IN DIESEL ENGINE SYSTEMS WILL PROVIDE A SAFER WORKPLACE !