

## Legislation: An Overview:

*Legislation* consists of Acts of Parliament (Acts) and subordinate legislation (e.g. Regulations, approved Code of Practices and standards where referenced). The term legislation can refer to a single *law* or a collection of laws. Engineers work within legislative frameworks and therefore **NEED TO KNOW** which laws apply to the work they are doing.

## Engineering and the Law

At the commencement of an engineering project, engineers should identify all of the legislative requirements (laws) that apply to that project.

Under the Australian legal system, the relevant State/Territory and or Federal regulators may take legal proceedings against companies or individuals for breach of legislation. This may lead to the prosecution of the company and individuals involved

Engineers often work at the forefront of new technology and create new situations, for which there may be no legislation or legal precedent. A legal precedent is a principle or rule established in a previous legal case that helps decide subsequent cases. Consider this example: when petrol-engine bicycles first took to the roads, one broke the speed limit and hit a pedestrian. There was no specific legislation in place or legal precedent to deal with that. In this kind of situation, lawyers use the closest relevant precedents they can find, or determine what is *reasonable*.

To avoid any potential or blatant breach of the law while working in the forefront of technology or under an environment of scientific uncertainty (related to the current *state of knowledge*), engineers should use a precautionary approach. This is critical when applying engineering in a hazardous environment (e.g. mining and major hazard facilities) where the engineering solution has not been proven.

## Acts

An Act is essentially a set of numbered provisions (Sections) containing statements and rules. Some examples of Acts that apply to engineering work are: Work Health and Safety Act, Road Traffic (Safety, Transport) Act, Electricity Act, Mining Act, Rail Safety National Law Act and Disability Discrimination Act.

**Note:** This is not an exhaustive list, there are many more.

## Regulations

Regulations provide more detail than Acts. For example, let's look at noise-induced hearing loss in the workplace. The Work Health and Safety Act will contain a high-level statement like "*persons conducting a business or undertaking (PCBU) must ensure the health and safety of workers...*" The Work Health and Safety Regulations will then have specific requirements related to the reduction of noise exposure including noise exposure standards (limits).



## Codes of Practice

Codes of Practice complement laws; providing practical guidance on how to comply with laws.

It is not mandatory to comply with a Code of Practice however, they are admissible in court; a court may use a code of practice to establish what is *reasonable*. Engineers can only justify NOT complying with a code of practice if they are working to (implementing) at an equal or better standard than that recommended by the code of practice.

## Australian Standards

Australian Standards set specifications and procedures to ensure products, services and systems are safe, reliable and perform consistently. It is not mandatory to comply with a Standard UNLESS it is referenced in legislation; it then becomes mandatory (*law*). There are many Australian Standards referenced in legislation and hence mandatory. These include standards for: occupational noise management, electrical installations, fall arrest systems, pressure equipment and scaffolding.

Standards are moving away from being prescriptive to performance-based, so it is a challenge for engineers to demonstrate that their work (designed products, goods and services) are compliant.

It is important to note that there are MANY standards and it is incumbent upon each engineer to search and find out what standards exist before deciding whether they apply to the work in-hand. If there is no Australian standard for an aspect of work, there may be a useful international standard.

## Regulators

You will hear the term *Regulator*. This refers to the regulatory bodies (independent or government) responsible for promoting, enforcing and administering specific legislation.

For example:

- SafeWork (in SA, NSW), WorkSafe (in all other states/territories): overseeing Work Health and Safety legislation.
- Energy Safe (Vic), Electrical Safety Office (QLD), Energy Safety WA, Office of the Technical Regulator (SA): regulation of electrical, gas and plumbing.
- The Office of the National Rail Safety Regulator (ONRSR): overseeing Rail Safety legislation.
- National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA): regulating offshore petroleum facilities and related activities in Commonwealth waters.

## Where to find Laws

Each Australian state/territory has a website on which you can find the state's laws (Acts and Regulations), and approved codes of practice. For example: South Australia's legislation website is [www.legislation.sa.gov.au](http://www.legislation.sa.gov.au).