

Introduction to Laboratory Training

Introduction This PDP is delivered as a one day classroom style event, aimed at providing attendees with an introduction to testing within construction materials laboratories in the specific areas of aggregates, soils and concrete; while other laboratory types, cement, asphalt etc; are also discussed. It comprises a number of dedicated modules which cover the specific areas that make up the laboratory. The relevant Australian Standard requirements and some other major specifications are discussed to assist the attendees to familiarise themselves with relevant requirements and assist in further reading.

Duration 1 day

Potential Participants

- New entrants to the Construction Material industry
- Sales staff dealing with laboratories or testing
- Operational staff who deal with a laboratory
- Office administration who interact with laboratories
- Financial staff who interact with laboratories
- Company management dealing with laboratories
- Individuals wishing to gain a better understanding of the important role construction materials laboratories play, in assuring testing is valid, effective and timely in supporting construction products.

CPD Points 7

Topics Covered

Attendees will experience the following components and outcomes:

- 1. What is a Construction Materials laboratory** – Attendees will be introduced to concrete, quarry and soils laboratories;
 - What is the important role of each of these laboratories in this industry?
 - How does each concrete, quarry and soils laboratory differ and how does the testing they do support the products they are testing.
 - The importance of the right laboratory environment to be able to do the testing quickly and efficiently; including the basics of the right building, equipment, staff and record keeping.



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PDP

2. **Why are Laboratories important** – Attendees will be introduced to the very important role of laboratory testing;
 - Determine if a product is suitable for a particular use, complies or doesn't comply with a specification
 - Why it is essential that laboratory testing is done exactly in accordance with test methods and any departures from methods are recorded.
 - What happens with a result once the lab has tested the sample?
3. **Laboratory Testing Overview**- Attendees will be introduced to the laboratory testing process;
 - The extremely important area of obtaining a correct (representative) sample for testing
 - Understanding the importance of knowing the how, when, where and history of a sample that may have arrived at your laboratory for testing.
 - How a sample is recorded in a laboratory and the importance of full and complete traceability of that sample through the entire testing process.
 - Sample preparation for testing-reducing a bulk sample to a size that can be tested
 - Correct application of a test method
 - Correct reporting of test observations
 - Recording of other important test information
 - How a test result is sent to a customer and the importance of the checking and signs off process before the result leaves the laboratory.
 - The importance of well trained competent staff
 - The importance of maintaining equipment calibration, test and other laboratory information
 - The role of laboratory audits- internal and external
 - The role of proficiency programs etc.



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