

VICTORIAN CONSTRUCTION MATERIALS LABORATORIES ASSOCIATION, INC

NEWSLETTER

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MESSAGE FROM THE CHAIRMAN

Well I guess all of you have read about the changes NATA wishes to implement in 2010 with regards to signatories. I would hope that everyone sees this as a change for the good of our industry and it is seen as the first step on the road to our profession being recognised.

This means we as an industry need to pull out our fingers and start to make some inroads into the when, what, where, and how we are going to put together a training program. We as an association over the next six to twelve months will be working towards this task. You as members owe it to yourselves and your staff to be a part of this process.

We are all guilty of saying we are too busy and cannot find the time but this is such an instrumental stage in our development as an entity that I urge you on this occasion to make that effort. It will be disappointing and extremely frustrating if in a year's time when a lot of **voluntary** hard work and effort has gone into the development of the training program that we have people in our industry making cheap comments about personal dislikes of the adopted system without having made any effort into its development.

We as an association intend on holding several meetings in the coming months to disseminate information on how the general structure will look to tie in with the National training standards. These meetings will also be used to allow our members to have their say.

Ernie Gmehling
Chairman VCMLA Inc.

WEB SITES OF INTEREST FOR TRAINING

Courses

<http://www.education.vic.gov.au/tafecourses/search/Courses/Detail.asp?ID=28885>

<http://www.education.vic.gov.au/tafecourses/search/Courses/Detail.asp?ID=28878>

Incentives

<http://www.otte.vic.gov.au/empinc.asp>

<http://www.newapprenticeships.gov.au/employer/incentives.asp>

VCMLA MEETING

Wednesday 13 September 2006

6:00 p.m.

NATA Offices

71-73 Flemington Road

Items to discussed

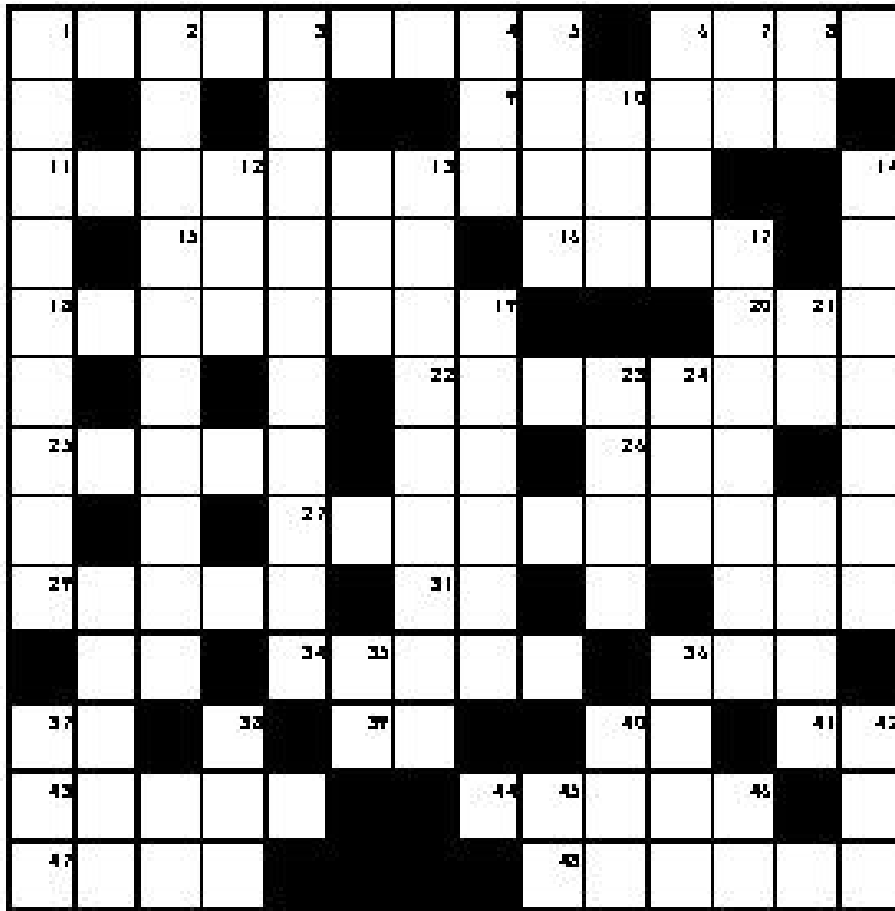
NATA Training Proposals

Changes to AS 3798

Where to from here

Please e-mail vcmla@nickfm.com.au by 11 September 2006 if you wish to attend so that we can orgnaise refreshments

CROSSWORD



Across

- 1 Soft metallic element - atomic no: 4
- 6 Literary work
- 9 Risk
- 11 Process performed in every laboratory
- 15 Oak nuts
- 16 _____ Taylor - Australian actor
- 18 Situated beyond what is seen
- 20 Naturally occurring hormone that regulates oxygen carrying capacity
- 22 Asphalt test
- 25 High strength fixture
- 26 Small lump of moist soil
- 27 Binding agreement
- 29 Not now
- 31 Order of Australia (init')
- 32 Old horse
- 33 New York
- 34 This man gave us a modulus but I don't think he is elastic
- 36 Brand of spark plugs
- 37 Symbol for metric unit of force
- 39 BMW motorcycle model prefix
- 40 Quality assurance (init')
- 41 International system of measurement units
- 43 Creepy
- 44 Mr. Fawly to you
- 47 Line about which a body rotates
- 48 Sodium Hexametaphosphate

Down

- 1 French physicist (1852 - 1908) - discovered natural radioactivity
- 2 Einstein's' theory that deals with the relationship of gravity to ~ ~ accelerated frames of reference.
- 3 Our workplace
- 4 Long life milk treatment process
- 5 Principal
- 6 Eric _____ - Australian actor
- 7 Alternately
- 8 Over-dimensional (init')
- 10 Animal display
- 12 H₂O at < 0.0 °C
- 13 Unexpected result
- 14 We need this in summer
- 17 We need this in winter
- 19 Unit of rotational displacement = 57.3 °
- 21 Proprietary limited (init')
- 23 Luncheon meat ??
- 24 Head protector
- 28 Ladies day at Flemington
- 30 Temporary laboratory
- 35 Alternatively
- 36 Not-so-high strength fixture
- 37 Carnivorous Green N.Z. Parrot that preys on small sheep
- 38 Not hers...
- 40 Quality System Audit (init')
- 42 Electrically conductive particle formed by dissociation of ~ ~ certain salts in water

ANSWERS IN NEXT EDITION OF NEWSLETTER

RPL – Recognition of Prior Learning

Alan Bartlett

(Published with Alan Bartlett's permission – the Appendices have been deleted so that we could include the paper in this newsletter. However, you may view the full paper on our web site at <http://www.nickfm.com.au/confpapers.htm>)

What is RPL?

According to the National Training glossary **RPL is the acknowledgement of a person's skills and knowledge acquired through previous training, work or life experience, which may be used to grant status or credit in a subject or module.**

RPL is a process that was introduced to the Vocational Education and Training (VET) system with the change to Competency Based Training (CBT) from the mid 1980s.

It is sometimes called Recognition of Current Competency (RCC). RCC is not mentioned in the **Australian Quality Training Framework (AQTF)**, the quality system we are obliged to comply with which is analogous to ISO17025, so we refer only to RPL.

What is competency based training?

CBT is training which develops the skills, knowledge and attitudes required to achieve competency standards.

CBT assumes that given sufficient training and opportunities for reassessment, most people can achieve competence.

There are two outcomes of assessment under CBT:

- Competent
- Not Yet Competent.

If Not Yet Competent complete further training and reassess.

How does it compare with the old ways?

Normative assessment used in schools and universities measures participants against their peers. If you fail, come back next year or next semester and re-enrol. Generally, the emphasis is on assessing the person's knowledge with less emphasis on skills assessment.

On the other hand competency based assessment measures the participant against nationally agreed (endorsed) industry standards to determine whether they can perform to the standards required in the workplace. The person's skills, knowledge and attitudes are assessed.

In the old days I and many others gained our qualifications by enrolling at the beginning of semester, attending classes in which we learnt many things we already knew (sometimes better than the teacher) and sat exams that tested a lot

of things that were handy to know (but not necessarily.) There was no other way and we served our time.

What is a competency standard?

A competency standard is an industry-determined specification of performance which sets out the skills, knowledge and attitudes required to operate effectively in employment.

Competency standards are made up of **units of competency**, which are themselves made up of **elements of competency**, together with **performance criteria**, a **range of variables**, and an **evidence guide**. Competency standards are an endorsed component of a **Training Package**.

A *Training Package* is a national document, developed with the relevant industry or industries; that defines the competency standards and qualifications relevant to that industry.

Because laboratory operations cover the spectrum from pathology to construction materials it was decided to develop a cross industry package for all laboratories with generic and industry-specific units of competency.

All lab operators need to communicate, work in a quality assurance system, and work safely, etc. although the context will vary.

On the other hand, only CMT/geotechnical testers need to perform earthworks supervision or geotechnical site investigation.

How do we assess competency?

Assessment is the process of gathering and judging evidence in order to decide whether a person has achieved a standard or objective.

There are three forms of evidence:

- **Direct evidence** where we see the person performs a task that demonstrates a skill. For example they perform a liquid limit test or calibrate a SMDG.
- **Indirect evidence** where the person produces an artifact they have created, that requires the necessary skill. They produce a test certificate and the associated worksheets showing their signature/initials.
- **Supplementary evidence** where the person produces third-party testimonial, answers written or oral questions, or supplies other supporting documentation.

What are the rules of evidence?

In assessing competence we need to ensure that the evidence is:

- **Authentic** – can we be sure that the test certificate was the person's own work?
- **Valid** – is the evidence relevant to the unit being assessed? If the unit is about OHS, a short course in computing probably won't be relevant.
- **Reliable** – would another assessor reach the same assessment decision based on this assessment, and would I reach the same decision if I carried out the assessment next week/next month?
- **Sufficient** – have I enough evidence to judge the person's competence? Is there more than one piece of evidence and do they corroborate?
- **Current** – is the evidence up-to-date? If the person was a NATA signatory in 1987, are they able to perform tests to current test methods.

What evidence can you provide?

When you apply for recognition of prior learning, what evidence can you provide to support your claim.

Certification

Certificates for completed courses of study may be used. These may be of three types:

- Completed units of competency whether from the Laboratory package or others. Laboratory units (completed since 2000) will be automatically credited. Some generic units from other packages (eg. Workplace safety, communication, teamwork and quality assurance) may be immediately relevant. Others that are relevant to your current workplace may be relevant, or may support your claim for recognition (eg. Computing studies, Radioactive devices operator licenses).
- Courses that have been assessed may support that you have underpinning knowledge. Examples of these include VET courses with Statements of Attainment or qualifications and university academic histories. Other short courses such as First Aid, Workplace Health and Safety Officer courses may be used.
- Short courses with Statements of Attendance such as NATA, VET and professional development courses demonstrate underpinning knowledge. Toolbox talks and internal training records are also supportive.

Documentation

Workplace documentation can be valuable evidence. Examples include:

- Position description, personal performance review reports
- Completed reports, worksheets, drawings, sketches
- Memos, e-mails, faxes, letters to or from clients, suppliers, supervisors or subordinates
- Accreditation certificates showing your signatory status

Demonstration

Demonstrating sampling and or testing techniques in real time or a videorecording of the process.

This can also be used to demonstrate knowledge of the laboratory information management system and ability to perform calculations.

Interview

This is used to authenticate other evidence and to clarify underpinning knowledge. It can also be used to establish competence where documentation is not readily available or the person can provide a spoken explanation more readily than a written one.

Testimonial

Testimonial can be provided by third parties such as supervisors/employers, clients, suppliers, colleagues and even subordinates.

These may take the form of reference letters, but we prefer to use a standard form that specifies the skills the person needs to demonstrate.

- Supervisors'/employers testimonials are valuable for determining whether the person is meeting enterprise requirements
- Clients' testimonials, whether from internal or external clients, are valuable for competencies that require service delivery.
- Suppliers' testimonials, whether from internal or external suppliers, are valuable for competencies that require demonstration of ability to acquire equipment, materials and services.
- Colleagues' and subordinates' testimonials can be used for communication, teamwork and supervisory competencies. They are a way of assessing the person's attitudes.

Testimonial evidence is valuable but not sufficient by itself. Responses may be subjective, coloured by personal bias. Subordinates may feel the need for a positive response to protect their current and future employment prospects.

What if you can't prove competence?

When the assessor considers the evidence they may decide that competence has been

demonstrated. All that remains is to deem you competent and credit you with that unit.

On the other hand they may decide that there is insufficient evidence. In this case there are two possibilities available:

- **You can't provide the evidence** – in this case you will have the opportunity to find evidence that will meet this deficiency, assuming it exists. It may well be that you have overlooked it.
- **You need further training** – any gaps in your skill or knowledge can be filled through further training. This may involve:
 - o Training by your employer
 - o Training by your RTO
 - o Self directed training through research.

Unless there are major gaps in your competence it should be necessary to reassess only the gaps.

Conclusion

RPL is a process that allows workers to gain recognition for the skills and knowledge they have acquired no matter how they were acquired. It is a requirement of the Australian Quality Training Framework that Registered Training Organisations offer RPL to all participants on enrolment

It is a self-paced and generally self-directed process that many people have found to be relatively painless. While the process needs to be rigorous to ensure the integrity of the outcome, RTOs can and should facilitate the assembling of evidence.

This can be done in a number of ways:

- Providing documentation so that the candidate knows what criteria they need to meet
- Guiding the candidate in the types of evidence that will be acceptable so that they don't waste time and resources in the process
- Providing the assessment tools that facilitate the collection of good quality evidence
- Thinking laterally to ensure the candidate is aware of potential evidence they can present, for example from previous employment or even from outside the workplace.
- Assessing holistically (for example two or more units at a time). For example, in assessing the ability to sample or test consider communication, OHS and quality assurance compliance requirements.
- Being flexible in the types and amount of evidence that will be accepted.

The ability to access RPL allows experienced operators to gain qualifications that, in the past, would have required several years' attendance at a teaching institution, in as little as six months.

Done properly, this can only benefit the nation as a whole by ensuring that we have a qualified workforce.

It can only benefit enterprises by a having a motivated workforce whose competence has been externally validated.

Finally it can only benefit the worker in having formal recognition of the skills and knowledge they possess. I have had the privilege of issuing qualifications to men in their late fifties and early sixties who have not undertaken any further studies since leaving school. Through recognition of prior learning and training they were able to achieve their first post-school qualification, particularly one recognised in their workplace.

In my opinion this is the most important benefit.

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The Role of the Geotechnical Authority and the Myth of “Controlled Fill”

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(Published with Peter Bayetto's permission – the Appendices have been deleted so that we could include the paper in this newsletter. However, you may view the full paper on our web site at <http://www.nickfm.com.au/confpapers.htm>)

Introduction

This paper sets out to review the role of materials testing laboratories in the construction process where land is developed, modified, filled with “controlled fill” and placed on the open market for sale.

Due to their place in the supply chain, materials testing laboratories are not necessarily in a position to adequately qualify the “certification of compliance” they issue nor indeed to fully understand the intent of the specification (and the implied “fitness for purpose” such a certification may warrant) that the laboratory is administering. This may lead the materials testing laboratory to be exposed to unacceptable levels of risk.

The requirements for the issuing of certificates of compliance in various jurisdictions are also examined.

It is proposed that the “final certification” (and “fitness for purpose”) of the controlled fill should be the responsibility of the Civil Engineer designing a land division (and the earthworks) who most usually also acts as the Superintendent for the construction of the works.

Fitness for Purpose (Proposed Use)

Land intended for residential use involves the highest risk to the consultants involved due to direct consumer involvement and the emotive nature of the home building process. Generally words such as: “controlled fill placed in accordance with the requirements of AS3798 to meet the requirements of AS2870 for controlled fill” imply a “fitness for purpose” intent. The wording included in a recent contract in Adelaide was more direct:

“The Contractor shall engage a geotechnical authority to carry out level one supervision of the earthworks in accordance with AS 3798. The geotechnical authority shall certify compliance of the earthworks with the requirements of AS 3798 and the fitness for purpose of the works”.

The various non technical parties involved in a residential land development, in “their ideal world”, seek the following:

Developer/Vendor: To have no “restriction” applied to the proposed use (nor devaluation) of the subject land subsequent to the landform earthworks and most often to contract all the risk associated with achieving this to another party.

Designing Civil Engineer/Surveyor: Main focus is design of the services infrastructure and allotments design to achieve desired yield. Often poorly understands the residential house building process and footing cost issues. Usually acts as the superintendent for the construction. Must in all jurisdictions (except NSW) certify to the local statutory authority or Council that the infrastructure and services have been constructed in accordance with the approved drawings and specifications.

Local Council: Ensure that the land meets their published planning and development guidelines and is fit for purpose (when measured against the Regulatory Requirements).

Selling Agent: That the land is saleable at the agreed price. That the characteristics of the land can be described in simple terms that will not devalue the agreed price and not place the selling agent at risk of breaching local consumer protection laws nor the Federal Trade Practices Act.

Purchaser/Home Builder: The block of land they purchase to be “as they see it” with no hidden costs involved nor future adverse performance implications for their home.

Residential Builders: Builds at low margins, is bound by consumer legislation in most jurisdictions to contract build to “fixed price”. Fixed price based upon the “as displayed house on standard footings” offered and the cost of variations requested by the owner and additional footing costs identified by a soil report carried out in accordance with AS 2870.

Site Classifier/Residential Footings Engineer: Carries out a simplified site classification report and footings design in accordance with AS 2870. Low cost high turnover work, not a geotechnical investigation. Seeks to have “all filling” either certified “as the equivalent of natural soil” (the general understanding of “controlled fill” in accordance with AS 2870) or will classify the fill as “rolled fill” (in accordance with AS 2870) or “uncontrolled fill” with implied additional construction costs.

Geotechnical Issues

“Compaction of the fill” is not the only aspect of the earthworks process that may affect the implied fitness for purpose of the filled land.

The issue for a materials testing laboratory/geotechnical authority is how do they identify these other issues and either take control of them (which the materials testing laboratory may not be in a position to do) or qualify their “certification” so as to preclude them.

The issues related to shallow allotment fills are simpler than those for deep fills.

For shallow fills the issues related to achieving the objectives of the various parties mentioned previously are:-

- adequacy of the compacted developer’s fill (measured against the specification and AS 2870 requirements).
- adequacy of the foundation the fill has been placed upon.
- identification (by survey?) of the boundaries of the fill certified (top, bottom, lateral boundaries).
- Is there a possibility of other fill upon the land (e.g. filled holes, dams)? Is this verified or “flagged” and excluded.

There are numerous instances where “certified developer’s fill” has been placed over unknown fill and where further fill has been placed on top of the certified fill layer at a later stage.

For sites containing deep engineered fill the long-term settlement characteristics of the fill is an important consideration. It is known from experiences with deep fills, that the resulting settlement has four components:

Short-term Settlement - due to self-weight of the fill material as it is placed. This settlement generally occurs during placement of the fill and for a relatively short time frame after the fill has reached its full height. For deep engineered fills, settlements of the order of 50 mm or more might be expected.

Elastic settlement - due to loads from building foundations. The elastic settlements include dry single-storey brick veneer domestic structures are comparatively small when compared to settlements due to the self weight of the fill. Differential settlements may occur.

Long-term Settlement - occurs over a period of years. For deep fills with light building loads, the self-weight of the fill material is the major component of the long-term settlement. Long-term settlements can be expected from deep fills and for an underlying

foundation of low modulus, such settlements can be of the order of 200 to 300 mm in extreme circumstances.

Hydroconsolidation (collapse) Settlement

Hydroconsolidation is highly dependent on the material type, compaction density and moisture content and is of concern where fill is placed at lower levels of compaction and where compaction is carried out a moisture contents dry of standard optimum moisture content. Clayey soils are more likely to undergo higher levels of hydroconsolidation. To reduce hydroconsolidation it is recommended that “deep engineered fills be compacted to a minimum of 98% Standard Maximum Dry Density at moisture content near to or 1 or 2 percent wet of Standard Optimum Moisture Content”. Adequate compaction and moisture conditioning of the controlled fill is required to ameliorate the effects of hydroconsolidation settlements.

When taking account the objectives of the Site Classifier/Residential Footings Engineer consideration must be given to the risks associated with the sometimes limited geotechnical knowledge these consultants have. This can lead to a failure to take account of:

- limitations caused by such features as boundary conditions (in filling deep excavations adjacent an existing boundary where perhaps an “exclusion zone” should be declared).
- differential settlements possible at the boundary between natural soils and the deep compacted fill.
- the potential additional risks from foreseeable leaks in services when they occur on “man made ground”.

Having reviewed these “other” geotechnical aspects that affect the land’s performance as a foundation it is obvious that the materials testing laboratory/geotechnical authority should define the context in which the “certification” that is to be issued will be used.

When the “contractual links” are analysed the materials testing laboratory/geotechnical authority may only ever be in the position to issue an extremely limited and qualified certification (this must often be in the context of the quality and “completeness” of the specification document being worked to) if it is not to “take on” unacceptably broad risks with relation to the “fitness of purpose expectations for the land”. The designing Civil Engineer/Superintendent ought to have considered in the design (and the creation of the specification) the proposed use for the land and the implications for this of the proposed works. In addition the designing Civil Engineer/Superintendent has “proximity to” **all** the construction

works and the full chain of design and construction activities as well as contractual control of all of the works. Based upon these considerations the materials testing laboratory's/geotechnical authority's certification should be limited to the compaction of the fill and expressly preclude any implications of fitness for purpose. Certification of the works should be made by the designing Civil Engineer/Superintendent.

Section 52 of Trade Practices Act 1974

Section 52 of the Trade Practices Act provides that:

“A corporation shall not, in trade or commerce, engage in conduct that is misleading or deceptive or is likely to mislead or deceive”.

To come within the section there must be

- (a) a corporation
- (b) in trade or commerce
- (c) which engages in conduct that is misleading or deceptive or is likely to mislead or deceive.

It is particularly notable that **intention** to mislead or deceive is not a necessary ingredient for a breach of the section.

The implications of the Trade Practices Act are self evident when viewed in the context of the “expectations” of the chain parties set out previously under Fitness for Purpose/Proposed Use and the “other issues” affecting foundation performance discussed in the section on Geotechnical Issues. The final certification will be used to describe the land offered for sale.

Expectations Set by AS 2870 and AS 3798

The requirements of AS 2870-1996 for “controlled fill” (Section 6.4.2 (a)) and the effects of fill upon site classification (Section 2.4.6 (a) and (c)) are reproduced in Appendix A.

While Section 2.4.6 (a)(ii) and (c) does refer to taking account of the issues set out previously in the discussion on Geotechnical Issues. The reality is that the limited geotechnical knowledge of Site Classifiers/Residential Footing Engineers means that consideration of the geotechnical issues rarely proceeds beyond Section 6.4.2 and the more simple expectations of “controlled fill” and a reference back to AS 3798.

The scope of AS 3798-1996 and the more detailed scope of the current draft are set out in Appendix B. The “draft scope” emphasises the standards applicability to residential land development and attempts to warn against inappropriate application of the standard and highlights the need to engage a suitably qualified professional.

The scope does extend the standard to deeper fill (up to 5 metres). This may be inappropriate in the light of the previous discussion under Geotechnical Issues.

The intent of AS 3798 with respect to geotechnical testing and certification of the compacted fill is set out both for AS 3798-1996, Appendix B and the 2006 draft standard, Section 8 in the excerpts attached in Appendix C.

It is unlikely that either the GITA or the GTA will have the contractual links to the principal and superintendent (for the types of work at which this standard is targeted) necessary to have the authority that must go with the responsibility set out in the last paragraph of Section 8.2

To meet the needs of the regulatory framework within which the certification will be issued in South Australia, Queensland and Victoria a certification that the filling meets defined requirements (for residential land Section 6.2 of AS 2870 Controlled Fill) must be signed off by an NPER (SA) or RPEQ (QLD) and EC (VIC) qualified or accredited Engineer. The accreditation requirements for each jurisdiction are set out in Appendix D.

The Building Services Authority Queensland (the housing indemnity insurer) has similar requirements.

Within the contractual framework that these projects operate under it is most likely (and indeed most usual) that the Superintendent (most usually also the designer) has the qualifications and proximity to the works to issue the certification. As discussed previously the GTA or GITA can provide results and a “qualified opinion” to the Superintendent. The design Civil Engineer/Superintendent has the proximity to the design process and to provide periodic review during the works and therefore the proximity and control to issue the certification required.

The clarification under Level 2 Supervision in AS 3798 that:

*“It (the GTA) will not be in a position to express any opinion beyond this as to the compliance of the works with the specification **or their suitability for any particular purpose**”*

raises the question as to whether it is implied under Level 1 Supervision that a GTA **can or ought to** make opinion as to the suitability for a particular purpose.

Summary

- Materials testing laboratories/geotechnical authorities should consider the risks associated with any “certification” or

“certificate of controlled fill” they are asked to produce subsequent to carrying out Level Supervision (as defined in AS 3798).

- Level 1 supervision should not be undertaken without a detailed and complete earthworks specification appropriate to the type of earthworks and prepared by an accredited Engineer (the materials testing laboratory may have difficulty in assessing whether the specification is complete and appropriate).
- The risks associated with certifying “fitness for purpose” should be considered carefully.
- Due to the chain of contractual links and proximity to the design process and the works construction the design Civil Engineer/Superintendent ought to issue the certification of the earthworks. The materials testing laboratory/GTA can provide results and a qualified opinion to the design Civil Engineer/Superintendent as an input to the certification.
- Draft AS3798 8.2 LEVEL 1 INSPECTION AND TESTING should clarify that the GITA’s opinion is “only to be relied upon by the Superintendent and no other third party” and the GITA “will not be in a position to express an opinion as to the suitability for any particular purpose.”

References:

- AS2870-1996, “Residential Slabs and Footings - Construction”, Standards Australia 1996
- AS3798-1996, “Guidelines on Earthworks for Commercial and Residential Developments”, Standards Australia 1996
- AS3798 Draft-2006, “Guidelines on Earthworks for Commercial and Residential Developments” Standards Australia
- Australian Trade Practices Act - 1974
- Building Services Authority, “Subsidence, A New Policy Designed to Help Alleviate the Cost Imposts of Defective Building Work in Footings and Slabs”, BSA Queensland 2005
- Building (Interim) Regulations 2005 - Victoria
- The Building Act 1993 - Victoria
- Development Regulations 1993 (Amended 2001) South Australia
- Brandon TL, Duncan JM and Gardener WS - “Hydrocompression Settlement of Deep Fills”, Journal of Geotechnical Engineering Vol 116, No 10, October 1990 American Society of Civil Engineers
- Queensland Building Act 1975 - Standard Building Regulations 1993
- Waddell PJ and Wong PK - “Settlement Characteristics of Deep Engineered Fills”, Australian Geomechanics Vol 40 No 4, December 2005

NEW ZEALAND

Civil Engineering Laboratories Conference
CELC-2006

Auckland 28-29 September 2006

Details on VCMLA web site - News

AUSTRALIAN CONFERENCE OF CONSTRUCTION MATERIALS TESTING May 2006

Over 140 representatives of construction materials testing laboratories from over Australia gathered together at a most successful conference on 16 May 2006 at the Jika International Hotel.

Papers were presented on earthworks, asphalt , concrete, proficiency testing, test methods, training needs and the direction being taken by interstate road authorities.

It was a very full program and much interest was developed in many aspects which are mutually of concern to all Australian CMT laboratories.

A highly successful social dinner was enjoyed by almost 100 of the attendees and then 50 stayed on for the Risk Management Workshop on the following day.

Items of interest which require further action by VCMLA include:

- Training of laboratory staff and suitable qualifications;
- Changes to AS 3798;
- Reporting criteria in Standards - too much detail;
- Ensuring that our work is recognised as a trade or profession;
- Combined approaches by all similar state groups to Standards Australia and NATA;
- Possibility of a national association
- Necessity to analyse risk and how to mitigate it.

It is hoped that the next conference will be held interstate in about two years

Thank you for all who attended and helped organise this successful first venture of the Association.

AIMS OF THE ASSOCIATION

The aims of the Association are to:

- improve the standard of testing in Victoria through training and other means
- advance the status of testing laboratories to the construction industry
- communicate changes in standards and technology to the laboratory industry
- provide a code of ethics by which members operate
- represent the views of the Victorian testing laboratories to peak bodies such as NATA, Standards Australia, Austroads, etc.
- inform the construction industry of the benefits of good laboratory services
- assist members in the development of suitable proficiency and inter-laboratory testing programs
- conduct activities such as meetings, conferences, technical and social events for the benefit of its members

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