ISSUE THREE | APRIL 2013

TECHNICAL ASSESSORS' NEWS

ADRIAN'S STILL GOING STRONG AT 80

Staff in the Perth office recently had the pleasure of celebrating the 80th birthday of Adrian van Leeuwen, one of our most experienced Technical Assessors.

Born in the Netherlands in 1932, Adrian attended primary and secondary school during and after the Second World War. He later attended the Horticultural College in Amsterdam where he obtained his Diploma in Horticulture.

After fulfilling his national service in the Dutch military, in 1952 Adrian migrated to Western Australia with his family. He was offered employment in 1956 by the City of Perth and after various roles in the Engineering Department, was appointed as a Laboratory Assistant in the Materials Testing Laboratory which became his future career.

He married Margaret, the love of his life in April 1959 and they produced five children, all who now have their own families. So Adrian and Margaret now share the joy of having many grandchildren and even great grandchildren.

During the 1960s and 1970s Adrian studied courses in engineering and science. He gained experience in the testing of concrete, soils, brick paving and especially Asphalt Technology.

After 12 years with the City, he joined the Asphalt Company, Hot Mix Ltd for a few years as Testing Officer. In 1972 he re-joined the City of Perth as Manager in the Materials and Research Laboratory and held this position until his retirement in 1994.

Adrian then operated Pavmatech, a consultancy in Pavements, Materials and Technology until he retired (again!) in 2002.

Adrian was appointed a Commissioner for Declarations and has been involved for many years in the local church of his town.

Adrian Van Leeuwen with NATA's Sonja Mcfarlane

Adrian first joined NATA as a Technical Assessor in the field of Construction Materials Testing in 1987 and since that time has assisted with approximately 150 assessments throughout Western Australia and the Northern Territory, covering Western Australia from Kununurra to Esperance.

In one two-week air/road trip from Perth his travels encompassed visiting Alice Springs, Darwin, Katherine, Timber Creek, Halls Creek and Broome! Adrian says that he still enjoys going on assessment visits and treasures the contacts with the materials testing industry even today.

Though Adrian occasionally tells NATA staff that he is thinking of finishing his time conducting assessments, he has yet to say 'no' when asked to assist and his experience continues to be greatly appreciated by the Perth office staff and CMT facilities in Western Australia.

We wish Adrian a happy 80th birthday year and look forward to celebrating his many birthdays yet to come.

CLIFF'S SIXTY YEARS OF ACCREDITATION

For one former NATA Chair, this year of 2013 marks the sixtieth anniversary of an association with accreditation that dates back to 1953, just six years after the founding of the association.

During that time Cliff Baker, AM (Member of the Order of Australia) has been involved with NATA in an amazing variety of capacities: Technical Assessor, Signatory, Authorised Representative, AAC Chair, member of the NATA Council, Board Member and Board Chair.

Cliff has also served as Chair of the Board of NATA's subsidiary NCS International, and was the inaugural Chair of Proficiency Testing Australia.

When he retired in 2008 (and for Cliff retirement doesn't really represent any sort of inactivity) he told NATA News: "I am proud to have been associated with NATA and NCSI,

continued on page 2

TWO FORMER TECHNICAL ASSESSORS PERISH IN HELICOPTER CRASH

Two scientists who had held senior positions in the CSIRO were victims of a fatal helicopter crash on Thursday, 21 March.

Former deputy chief of operations at CSIRO Tony Farmer, and former senior research scientist John Dunlop died in the crash at Bulli just north of Wollongong NSW.

Dr Tony Farmer, 68 was a NATA Technical Assessor from 1984 until 1994. He worked at CSIRO from 1973 to 2010 and was formerly the Deputy Chief of Operations at CSIRO.

He was the editor of Australian Physics magazine, published by the Australian Institute of Physics.

Dr John Dunlop, 66 had held the positions of Principal Research Scientist at the NMI laboratory and Principal Research Scientist at CSIRO's division of applied physics. He worked at CSIRO from 1976 to 2008.

He was a NATA Technical Assessor from 1987 until 2004 and was the executive director of Acousto-Scan Pty Ltd in Surry Hills NSW.

Also killed in the crash were physicist Gerry Haddad and CSIRO fellow Don Price who had worked with Tony and John at CSIRO's Lindfield premises until their retirements.

CONTRIBUTIONS WELCOME

This is a great place to share some of all that experience you've gained, whether it's from working in the laboratory or while conducting assessments.

Stories, technical articles, photos, jokes – all contributions from our Technical Assessors are welcome.

Send them via email to: corpcomm@nata.com.au or to: NATA Communications, PO Box 7507, Silverwater NSW 2128.

IN THIS ISSUE:

CLIFF'S SIXTY YEARS OF ACCREDITATION (cont.)

world leaders in the business.

"I've met a lot of wonderful and dedicated people and enjoyed my time with NATA," he said.

The business that has been the focus of Cliff's relationship with NATA over the years is accreditation, a topic about which Cliff can speak with both elegance and an incredible depth of knowledge.

"NATA must continue to stick to core business, which is accreditation and surveillance, based on peer evaluation. Without peer evaluation and without its volunteers, NATA would never be where it is; its spirit is based on the fact that it is an organisation of volunteers," he said.

In 1956, Cliff became a NATA Technical Assessor and continued in this role for the next forty years. In 1959, he became the Authorised Representative of the laboratory of Humes Limited and held this position for another thirty years.

Cliff can remember his first accreditation experience assessing a concrete testing laboratory in 1956. It makes an interesting comparison with today's somewhat more hectic schedule for assessors.

"In those days the procedure was that the assessor had a 9 am appointment and started off with a cup of tea. The assessment would be over in time for lunch and of course the staff member and assessor would expect to be taken out by the lab," he said.

"As I recall how it was done fifty years ago before formal accreditation came into being, the procedure was that an applicant would make a brief written statement with the details about what kind of registration they wanted.

"An assessor would make the necessary arrangements and a visit of the premises would then take place. A NATA staff member would track one or two tests from the start to when the report was written.

"There was no exit interview. The assessor just wrote a report that was reviewed by the Registration Advisory Committee Chair. A full report was prepared for the Executive – that was the Board at the time – and the applicant was notified of the outcome.

"Although the assessor's visit would take only half a day, the whole process could take months!"

Unveiling the plaque to signify the permanent head office of NATA at Rhodes in 1992: (Left to right) NATA's past Chief Executive, John Gilmour; the late Senator John Button, and Cliff Baker who was then NATA Chair.

Cliff joined what was then called the Mechanical Testing Registration Advisory Committee and was appointed its Chair in 1979. He retired from this position in 1989 when he became Chair of NATA Council.

Cliff's involvement with NATA continued to grow. He joined the NATA Council in 1983 as one of the three nominations of the Confederation of Australian Industry. In 1985, he was elected to NATA's Executive Committee, became Vice-Chairman of Council in 1986 and served as Chairman of Council from 1989 to 1995.

During his time as Chairman of the NATA Council Cliff was instrumental in negotiating arrangements for the purchase of NATA's head office building at Rhodes.

"The purchase of the building was a real buy", Cliff recalls. "It came about because Lou Davies, who was a man of great character and NATA's Vice-Chair at the time, had a business in the area.

"He spotted the vacant premises and thought it would make a good headquarters for NATA. We started negotiating and acquired the building."

From 1989 to 1995 Cliff was the Chair of the NATA Board. In 1996, after the formation of NCSI as a subsidiary company, he joined the inaugural Board of NCSI.

NATA's Executive Committee had no hesitation in recommending Cliff for Honorary Membership in March 1997.

In 1999 he was awarded an AM for services to Australia's technical infrastructure through NATA.

"NATA's Chief Accountant decided to present me with a special certificate that explains what the 'AM' stands for", says Cliff.

"It was a lovely certificate with 'Accountant's Menace' at the top".

In so many ways Cliff Baker, AM, (BA, BSc, ARMTC, MIE, Aust.) represents the development of accreditation in Australia.

ASSESSOR DEVELOPMENT PROGRAMS FOR 2013

NATA is committed to providing the best-qualified people and resources to our accreditation assessment teams.

As a fundamental element to this commitment, NATA provides Technical Assessor Development Program (ADP) training sessions for all our external technical assessors. In addition, we provide training resource material in the form of a folder of information called the Assessor Resource Kit (ARK).

This training of our technical assessment team members is also a requirement of NATA's MRA partners and NATA's governing document ISO/IEC 17011.

In addition to untrained Technical Assessors, existing NATA Technical Assessors are welcome to re-attend an ADP training session as a refresher at any time.

All enquiries regarding technical assessor training can be directed to the Training Services group at email: trainingservices@nata.com.au, or telephone 1800 621 660 and ask to speak to one of the training team. Please have your Assessor ID number available at the time of calling.

3 May 2013 - Adelaide (TADP.280)
9 May 2013 - Sydney (TADP.281)
10 May 2013 - Perth (TADP.282)
23 May 2013 - Melbourne (TADP.283)
30 May 2013 - Brisbane (TADP.284.MED)
12 July 2013 - Brisbane (TADP.285)
18 July 2013 - Perth (TADP.286)
9 August 2013 - Sydney (TADP.287)
16 August 2013 - Melbourne (TADP.288)
6 September 2013 - Hobart (TADP.289)
6 September 2013 - Cairns (TADP.290)
16 October 2013 - Brisbane (TADP.297)
17 October 2013 - Melbourne (TADP.291.MED)
23 October 2013 - Sydney (TADP.292.MED)
1 November 2013 - Adelaide (TADP.293)
15 November 2013 - Brisbane (TADP.294)
28 November 2013 - Melbourne (TADP.295)
28 November 2013 - Sydney (TADP.296)

REFORMAT OF NATA ACCREDITATION DOCUMENTS

As part of the transition to Integrated Accreditation, the Field Application Documents (FADs) with which you are familiar have been reissued in a new format.

There have also been changes to the Publications section on the NATA website.

To read an explanation of the new FAD format and website changes please **click here**.

If you have any queries regarding these documents or any other aspects of accreditation or NATA's services, please contact your Client Coordinator.

WE'D LIKE YOUR THOUGHTS ON 'TECHNICAL ASSESSORS' NEWS'

Are the contents interesting? Do you feel it's relevant to your role as a Technical Assessor? How many issues would you like to receive each year? And anything else you'd like to tell us.

Please send your response to us via email at corpcomm@nata.com.au

CMT TECHNICAL ASSESSOR GUIDANCE

1. INTRODUCTION

General guidelines regarding the role of the Technical Assessor and NATA lead assessor are included in NATA's Assessor Resource Kit (ARK), which has been provided to each Technical Assessor and is maintained on NATA's web site. Some additional material has been prepared specifically for CMT Technical Assessors in fulfilling their role in determining the competency of CMT facilities. It is intended that this material be published in three parts, with this first part dealing with the following three topics:

- **Technical Supervisory Personnel** (refer ISO/IEC 17025 Clause 4.1.5, 5.2.1)
- **Testing Personnel** (refer ISO/IEC 17025 Clause 5.2.5)
- **Quality Assurance Activities** (refer ISO/IEC 17025 Clause 5.9)

Feedback from assessors on these guidelines is welcome and may be forwarded to the Sector Manager Infrastructure, Brett Hyland (Brett.Hyland@nata.com.au).

2. TECHNICAL SUPERVISORY PERSONNEL

Level 4/5 technical supervisory personnel

The Technical Assessor needs to assess the effectiveness of all aspects of the facility's technical supervision (see below). This typically will involve interviewing the Level 4 and Level 5 supervisory personnel and may often be done immediately after the entry meeting, before further technical assessment is performed.

Elements of competence for L4/5 technical supervisory personnel

The Technical Assessor must be confident that the personnel with responsibility for the top level technical oversight for a facility have competency that is commensurate with their appointed levels. To establish this, the Technical Assessor will be required to establish that supervisory personnel are able to competently carry out all aspects of technical supervision (refer CMT FAD Section 4.1.5g), including demonstrating the following.

- Sufficient depth of technical knowledge in relation to the type of testing and its performance to approve the operational practices under their responsibility. Capability to manage the authorisation of the facility's staff to sign test reports.
- Capability to manage staff training and the formal assessment of staff technical competencies.
- Capability to establish and implement the quality assurance activity plan, including proficiency testing and the analysis of the results and actions taken from this program.
- Ability to effectively supervise technical operations, including field testing and sampling as well as any annex facilities or other sites within their area of responsibility, if applicable.
- Ability to monitor the quality of data being reported, involving critically reviewing the content of reports and associated test data.
- Ability to technically review contract specifications and to select appropriate test methods and/or develop inspection and test plans, as appropriate.
- Establishment and maintenance of the equipment assurance program.

In many cases the Level 4 and Level 5 staff may not be involved in the day-to-day testing performed at the facility and will need to demonstrate to the satisfaction of the Technical Assessor their direct and ongoing role in relation to the relevant supervisory functions listed above.

It is recognised that, especially in larger companies, different supervisory functions may be shared amongst a number of individual supervisors. However, in regard to top level oversight of any of these functions, delegation by the Level 4 or 5 staff to personnel qualified at a lower level would not normally be considered acceptable, except in tightly defined circumstances. The Technical Assessor needs to be satisfied that the competence of all supervisory staff is commensurate with their level of responsibility.

Delegated technical supervisory personnel

Where elements of technical supervision are carried out by delegated personnel qualified at Level 2 or 3, then the Technical Assessor must examine available competency records and consider these in relation to the level of responsibility defined in the relevant position descriptions. Where such personnel are signing test reports, the Technical Assessor needs to question these staff to establish that they have adequate understanding of the meaning and feasibility of the test results in relation to the material or work for reports that they have signed. Usually staff at this level will also be involved in the performance of testing during the assessment (although Level 1 personnel may perform parts of the tests).

3. TESTING PERSONNEL

The Technical Assessor must be satisfied that competency is being adequately assessed within the facility and may seek to establish this in conjunction with the evaluation of the facility's quality assurance activities.

The assessment is a sampling exercise but the Technical Assessor will normally seek to investigate the following matters:

- Supervision of testing personnel (discuss with L4/L5)
  - o Extent of involvement of L4/L5
  - o Records of supervisory visits
  - o Use of QAA data
  - o Any delegation of limited supervisory responsibility to L2/L3?
  - o Staff training processes
  - o Management of trainees
- Determining competence of testing personnel (discuss with L4/L5)
  - o Process
  - o Records
  - o Assignment of qualification levels (certificates/experience)
- Quality assurance activities (discuss with L4/L5)
  - o How does a lab ensure competence is maintained?
  - o Participation by whom
  - o How were results evaluated?
  - o Records
- Technical witnessing and questioning (all levels as appropriate)
  - o Demonstrated knowledge by operators of details of the tests they perform
  - o Knowledge by supervisors and those deemed to be competent of the feasibility of the test results
  - o What can go wrong and what is done?
  - o Involvement of a representative sample of testing staff
- Reports and worksheets (all levels as appropriate)
  - o Who signed reports?
  - o Do reports meet the technical standards (review sufficient across the full range of methods)

4. QUALITY ASSURANCE ACTIVITIES (QAA)

The facility's QAA program will need to be discussed with the L4/L5. The general requirements for quality assurance activities (QAA) in Construction Materials Testing are detailed in Section 5.9 of the CMT Annex to the 17025 Application Document.

Supervisory staff within the facility must develop a suitable quality assurance activity plan covering the scope of accreditation in order to demonstrate that the facility is producing valid and repeatable results. They need also to develop satisfactory criteria for the acceptance of results from such assurance programs. The Technical Assessor will assess the process involved in developing these plans and the criteria set in regard to their meeting the intended outcome.

Proficiency Testing

In general, proficiency testing is to be conducted every four years for each discipline (i.e. class of test). However, in some facilities,

continued on page 4

CMT TECHNICAL ASSESSOR GUIDANCE (cont)

only a few tests are performed within a class of test, e.g. 2.24 where only Ball Embedment tests are performed. In such cases, some other form of QAA for each core competency area (i.e. sub-class of test) may represent adequate coverage. Other facilities may only have a single class of test and may need to perform some proficiency testing more frequently to provide assurance that their most regular testing is meeting the facilities requirements.

Proficiency testing programs do not necessarily need to be conducted by specialist commercial providers. Some industry associations and even some testing companies provide regular proficiency testing programs which may be acceptable.

The Technical Assessor will need to examine the process undertaken to select the proficiency testing providers. Sufficient participants are required for satisfactory statistical analysis and participation of facilities other than the facility being assessed would be expected. Programs should follow the general guidelines for accreditation for Proficiency Testing Providers as detailed in Selection of PT Provider Checklist which is available from NATA's website, including:

- Homogeneity testing or other assurance the samples are consistent;
- Statistical analysis (such as Z-score or standard deviation calculations)

It is important that facilities analyse the results of their proficiency testing and take action where appropriate. The Technical Assessor needs to discuss the analysis of results with technical supervisory staff in the facility.

Technical Assessors need to be particularly aware that, where the number of facilities involved is small, Z-scores may be misleading.

Even where a Z-score or standard deviation based on wide participation indicates no 'statistically significant' difference in test results, there may be quite significant practical differences, e.g. if maximum dry density differences of 0.05 t/m3 were identified then this may warrant investigation, regardless of the z-score criteria.

Similarly, it may not sufficient that a Z-score less than 3 has been reported for that facility if the spread of results is itself of concern. For example, a recent CBR proficiency testing program showed CBR test results between 3 and 30. The Z-score showed that there were no outliers but would a customer or a testing facility accept this large difference? Therefore, the Technical Assessor should expect a facility to justify any limits it places on the variability of its test results, based not just on published proficiency testing results but also on the practical application of the test results.

Other QAA

For each sub class of test, facilities are expected to perform quality assurance activities within every reassessment period (three years). Also, whenever additional tests are to be added to the scope of accreditation, some comparative testing or quality assurance activity needs to have been performed to show the competence of the facility in performing the additional test(s). At an initial assessment some comparative testing needs also to have been performed.

The Lead Assessor will check the plan or schedule for these activities and determine if this plan has been followed and if the future plan covers all areas of testing (normally to at least subclass level). Where particular areas of testing do not lend themselves to quality assurance activities, these should be discussed with the Technical Assessor to ensure this is satisfactory.

Results of QAA need to be analysed by the facility and action taken as appropriate. The Technical Assessor needs to review all such testing analysis. This is to be recorded on the assessor record sheets.

Where QAA is conducted in the form of comparison testing, most Technical Assessors have a good idea of the differences that they would expect for most tests they assess. Differences between facilities are usually greater than those found between operators within a facility.

PROFESSOR ROSS VINING - NATA ASSESSOR AND COUNCILLOR, KILLED IN SEAPLANE CRASH

Professor Ross Vining, the director of Forensic Science SA, died after the sea plane he was flying crashed in Far North Queensland on Thursday, 15 November 2012. He had travelled to Queensland to observe the total solar eclipse on 14 November and was the sole occupant of his home-built seaplane when it crashed.

Prof Ross Vining (Picture: Dylan Coker, Source: adelaidenow)

Professor Vining was a member of the NATA Council representing South Australian members. He was the authorised representative for Forensic Science SA and was also a former Technical Assessor in the field of chemical pathology (1986-1999).

Professor Vining was appointed director of Forensic Science SA in January 2008. He came to South Australia from NSW where he was the director of the Institute of Clinical Pathology and Medical Research in Sydney.

Professor Vining was widely known as an advocate and crusader for forensics and their role in modern criminology. As the head of Forensic Science SA, Professor Vining promoted the organisation's work by becoming the public face of this most fascinating branch of science.

He leaves a wife Linda and son Ben.

SA EMISSION TESTING METHODOLOGY

Our thanks to Rob Mitchell, Manager Air Science, Air & Noise Branch of the South Australian Environment Protection Authority, who advised us that the Authority has issued its updated Emission Testing Methodology for Air Pollution.

The new manual is titled: Emission Testing Methodology for Air Pollution

Document: Air - Guideline (published 07.08.12)

This manual replaces the previous version and is mandatory for testing under the Environment Protection (Air Quality) Policy 1994.

The manual applies to testing of chimney stack gas and particulate emissions for the EPA under Schedule 1 of the Air Quality EPP. Methods in this manual must be used for testing under this schedule.

The updated manual can be downloaded from the EPA's website at: emission_manual.pdf (1.1 mb)

INTELLECTUAL PROPERTY (IP) – AN INTRODUCTION

By Dr Richard Brittain LLB FIET CEng

Solicitor and Barrister Supreme Court of New South Wales

NATA Technical Assessor Dr Richard Brittain from the NMI Legal Metrology Branch was admitted as a Lawyer of the Supreme Court of New South Wales on 21 May 2010.

He has been a very active Technical Assessor for NATA since 1999 and has assisted NATA in more than fifty assessments.

Although Richard's article, reproduced here, was originally written for an audience of engineers it is equally applicable for scientists from all fields as an introduction to intellectual property (IP).

Introduction

At the Institution of Engineering and Technology (IET) NSW Presentation Dinner in October I explained to some fellow attendees how I had made a career change from electrical engineering to law over the last few years.

Following dinner, Dr Simon Poole Director of New Business Venture at the Finisar Corporation explained how Finisar had developed from an idea dreamt up over a bottle (or two) of red wine to a manufacturer of state of the art optical communications technology that now exports over $100M worth of its products from Australia per annum.

Critical to that success had been the correct management and protection of Finisar's intellectual property (IP). Whilst totally intangible Finisar's IP was not only its most valuable asset but also had a very short 'half-life' in the fast moving world of optical communications technology.

This fascinating talk stimulated many pertinent questions and much conversation about the future of manufacturing in Australia and the importance of the prudent management and protection of IP by engineers. By the end of the evening I had agreed to consider preparing a presentation on IP for engineers.

The presentation is still under development but in the meantime this is an attempt to give engineers an overview of what IP is, why it is so important to engineering and some of the key means of managing and protecting it using the facilities provided by IP law. This article is entirely without prejudice and nothing in it is intended to constitute legal advice – express or implied.

What is IP?

IP is a form of personal property that can be bought, sold, licensed or given away at the election, or by the actions (including omissions), of its owner(s). In particular it is a suite of exclusive rights that can be used to protect and exploit the investment of engineers in inventiveness, new ideas, new technologies, new methods and new ways of manufacturing.

IP is intangible but valuable – consider a circuit design or the listing of the code for a new algorithm. The value of these items is not in the tangible property i.e. the paper on which they are printed, but in the ideas and inventiveness contained and expressed in them. The separation between ownership of the physical and intellectual components of a document containing a circuit design or the listing of the code for a new algorithm forms the basis for IP law. The notion that something can have a value beyond its obvious physical worth and that there can be a legal bifurcation of the intellectual property from the physical property in a tangible item is at the heart of IP law market value as against inherent value from an economic perspective.

IP can take many diverse forms and the following specific examples serve to illustrate its scope:

- Patents
- Circuit layouts rights
- Designs (including industrial designs)
- Copyright
- Trademarks
- Trade secrets/confidentialities
- Domain names

IP Rights

The reason d'être for IP rights is to balance two competing interests in the economy by promoting and rewarding innovation by creating temporary monopoly rights on one hand, and that of encouraging the sharing of the fruits of creativity, innovation and hard work for the greater good of society on the other.

The notion of temporary monopoly quid pro quo disclosure originated from the Statute of Monopolies 1623 (UK) which was designed to attract skilled foreign artisans to set up businesses in England in order to provide local employment and share their skills and new techniques in exchange for monopoly rights to trade in the commodities they produced/manufactured at a time when the UK lagged behind continental Europe in many technologies. IP law now creates rights designed to protect innovators whilst allowing newcomers to enter and compete in mature markets.

IP rights can be a confusing area for engineers and they have been described by IP Australia (the Commonwealth Government agency with responsibility for IP) on their website (www.ipaustralia.gov.au) as 'restricted and exclusive, overlapping, contradictory, territorial and volatile'. These rights can be restricted in both duration and scope and yet usefully exclusive. They align with National Competition Policy which aims to promote the widest possible availability of competition in order to have a positive impact on economic growth.

As IP rights are not physical they can be used multiple times without being diminished e.g. by being individually licensed in multiple markets around the globe and on terms specific to each of those markets. IP can also be controversial in circumstances when there are competing claims for the same or very similar inventions, when there are disputes over whether an invention can be patented, when disputes arise across jurisdictional borders in circumstances that are without applicable international agreements and in areas of health, such as IP related to the human genome and its exploitation for the development of predictive tests for diseases, and/or the restriction of affordable access to pharmaceutical products in order to realise a commercial return on research and development investment. In short the 'commodification' of the public domain and its potential to infringe the general public interest.

Dr Richard Brittain

Why is IP so important?

As stated on the IP Australia website, IP 'protects the rights of writers, journalists, photographers, artists, designers, business people, entrepreneurs, scientists and inventors by providing exclusive rights to use and control and profit from their intellectual and/or creative endeavours'. In today's knowledge economy IP is a valuable asset that needs to be strategically managed. It is an essential means by which engineers can protect and exploit their inventiveness and innovation. IP law promotes technological innovation and the sharing of progress globally. This in turn encourages investment in innovation and stimulates creativity by the prospect of reward. IP is an incentive to encourage and reward innovation. Reservation of IP rights can be an incentive for innovation by enabling creators and owners of IP to be rewarded with the time and opportunity to exploit their creations.

Protecting IP enables engineers to make the most of their ideas, inventions and/or brand. IP differentiates a business from its competitors and provides a competitive advantage. IP rights are also a powerful bargaining tool for business that can be sold for financial profit. They enable

continued on page 6

INTELLECTUAL PROPERTY (IP) – AN INTRODUCTION (cont)

the owner to compete on the reputation of their products rather than just their price. IP rights provide control for their owner of who can use the IP and for what purpose(s) and on what terms. It also provides owners of IP rights with a range of options for manufacturing products based on their inventions when the owner cannot afford to manufacture and commercialise their invention themselves. Further IP enables businesses to position themselves competitively in all potential markets through licensing of their IP.

IP laws lower the chances of reputable products and/or services being replicated and passed off as genuine by rogue rival traders thus enabling new opportunities in additional markets to be safely exploited. All types of IP may provide competitive advantages for its owners and further opportunities for commercialisations in a business. They can provide the owner of the IP with the opportunity to limit the competition in various ways and for various periods whilst the IP owner takes advantage of their creation.

Strategic protection and management of IP rights can enable a business to establish their product or service in the market and stay ahead of the competition by restricting competitive market forces for long enough to make the difference between success and failure in the market. By providing protections to inventors and creators IP rights encourage owners of IP to engage in innovation, rewards the effort and skill involved in innovation, promotes access to innovation and stimulates further research and developments by others. Ultimately IP can be used by businesses as a form of protection from and/or as a deterrent to their competitors.

Protecting IP

Creation of IP does not necessarily connote the ownership of the rights in and to it. IP must be protected in order to establish ownership of the associated rights. Good IP strategies involve the use of a range of types of IP protection available with differing terms, costs, requirements and benefits. In order to protect their IP and its potential for commercialisation businesses need to be clear about what they own, what they use, how it is protected and if it is being exploited to their benefit. Various layered protections of IP rights can be utilized in commercially creative ways to protect a product or service – patents to protect specific aspects of a technology, a registered trade mark to protect the brand, a registered design to protect appearance and copyright to protect associated documentation including manuals. The more layers of protection that can be used the more resistive a product or service can be made to imitation and competition.

Unlike title to property such as land IP, title may not be absolute and unequivocal. IP ownership can be challenged by court action directed at its originality and its eligibility for the protection granted to various IP rights. Unless IP is carefully managed by businesses (especially new businesses) a situation can arise where several people claim to have been the creator or author of a new product or service or to have been a joint creator or author with a claim to spoils resulting from its commercialisation.

IP needs to be protected in each national market in which a company trades. As Australia is a party to many key international IP treaties obtaining protection in other countries is not necessarily as onerous as it may appear at first sight. This is an example of where lawyers can assist engineers to avoid these difficult situations.

All businesses should have regular IP audits to clarify what IP they own and to enable them to protect it appropriately – especially if the business uses contractors. Combining registered and unregistered IP rights can optimise the IP protection that a business has. The exact strategies used are a business decision based on a cost and benefit analysis. Selecting the

best strategies involves considerations such as weighing up whether it is better to get a product on the market quickly by maintaining secrecy around its IP or waiting until its IP is fully protected by a patent before taking it to the market.

IP should be part of the business strategy in the business plan as should a strategy to deal with infringements of a business's IP and educating staff about their obligations, including those in any confidentiality agreements in place. Prudent business strategies may also include investing in IP insurance. At the risk of sounding like a stereotypical lawyer, engineers would be well advised to take professional advice on protecting their IP as it can be a complex area of law where lawyers can really help engineers.

What can be protected and how?

IP rights make take numerous forms that may be protected in a disparate range of ways, some involving registration such as patents and trademarks, and others that simply come in to existence as a result of the intellectual endeavours and creativity that gave rise to something new and unique.

The main things that can be protected and the IP rights that can be used to protect them are:

- Inventions and new processes such as polymer bank notes and pharmaceuticals by filing a patent
- Product designs - such the 'iPod' by registering the design
- Computer programs, drawings, art, literature, music, films and broadcasts by - copyright
- Circuit layouts – by a system similar to copyright
- Trade secrets and confidential information – such as the Coca-Cola formula by confidentiality agreements and effective anti-competition restrictions
- Logos, phrases and aspects of packaging (including colour, words, numbers shape – such as 'Qantas®' or 'Lonely Planet®' or the Cadbury® purple used on its chocolate wrappings – by registering a trademark
- Domain names - by registration.

Again, lawyers can provide professional advice to engineers on how the facilities available under IP law can best be used to protect their commercial interests.

Confidentiality (or secrecy) is paramount

Some very significant IP rights cannot be protected unless they are new, for example patents and designs. Therefore it is paramount that they not be disclosed in the public domain before the IP rights associated with them are protected. Engineers need to keep in mind that even mentioning new innovations at conferences or showing, sketches, photographs of prototypes could disqualify them from filing for IP protection. This is why confidentiality or secrecy is paramount to the protection of IP.

Conclusions

IP is totally intangible but can be a business's most valuable asset that differentiates it from its competitors by protecting its reputation and brand giving it a competitive advantage. It can have a short 'half-life' and therefore needs to be properly protected.

IP takes many disparate forms and can be bought, sold, licensed or given away by the actions and omission of its owners. The ownership of IP can be separated from the ownership of the physical items embodying it. IP rights promote and reward innovation and sharing of research and development by granting exclusive, if temporary, monopoly rights to exploit an invention in exchange for full disclosure of it. This encourages investment in innovations and the global sharing of technological progress. IP rights may be used multiple times (for example in multiple markets) without being diminished.

IP needs to be strategically managed by businesses if it is to effectively protect the inventiveness of engineers. As creation of IP does not guarantee ownership of it, IP protection is critical. This can involve effective use of a range of strategies and layers of protection provided by IP law. IP law can be a complex area and it is one where lawyer can provide assistance to engineers.

POLICY CIRCULAR 42 – ACCREDITATION OF NEW BRANCH SITES

NATA recognises that an accredited facility (base site) may need to establish a permanent branch (or satellite) site located away from the accredited base site and require accreditation for this branch site at short notice to service the needs of its customers.

In response, NATA has developed a Policy Circular (Policy Circular 42 - Accreditation of New Branch Sites) to allow the branch site to claim accreditation for its activities under the accreditation (in whole or in part) of the base site, prior to the branch site gaining accreditation in its own right.

Policy Circular 42 - Accreditation of New Branch Sites can be downloaded from the publications section of our website:

publications/Accreditation_criteria/Policy-Technical-Circulars/PolicyCircular42.pdf

THANKS TO ALL OUR TECHNICAL ASSESSORS

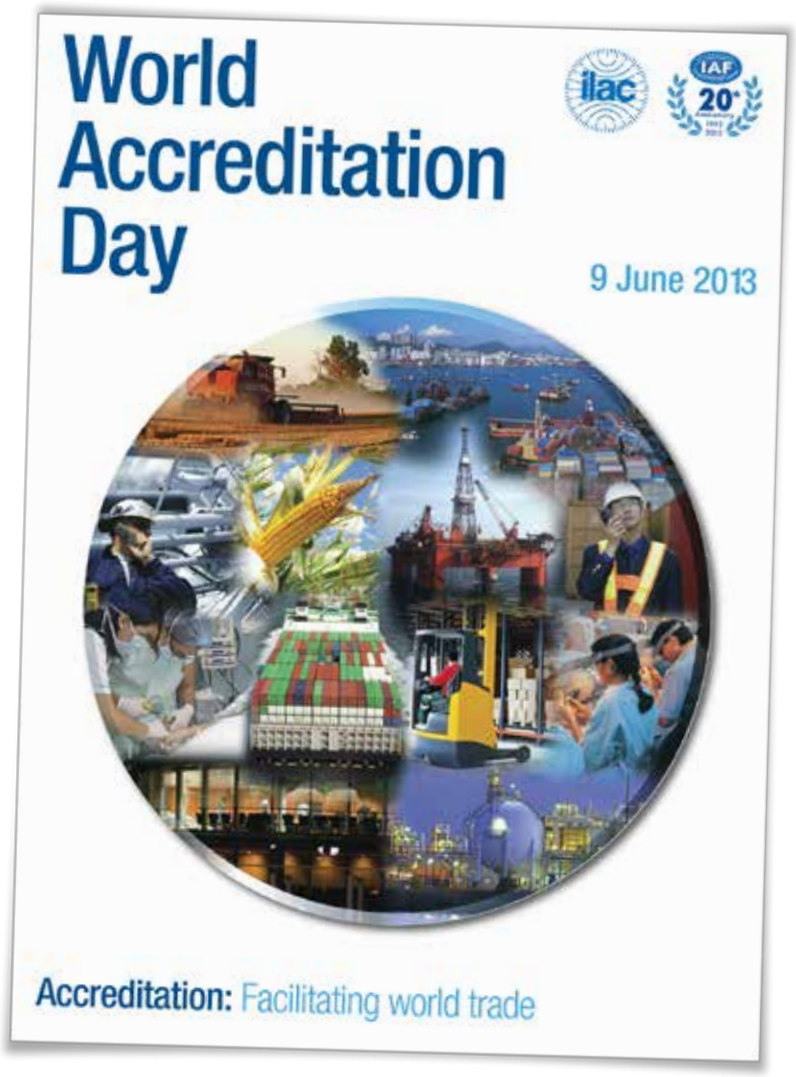
9 JUNE IS WORLD ACCREDITATION DAY 2013

This year the focus of World Accreditation Day is on the important role accreditation plays in facilitating trade around the world, both within and across national borders.

It is vital, not only for individuals and organisations but for national and international economic health, that products and services can cross borders to meet global demand without causing undue risk to the health and security of individuals or the environment.

The primary purpose of both IAF and ILAC is to establish multilateral arrangements between their member accreditation bodies based on mutual evaluation and acceptance of each other's accreditation systems. These arrangements enhance the acceptance of products and services across national borders by removing the need for them to undergo additional tests, inspections or certification for at each country of entry. This helps to reduce bureaucracy and the costs to businesses and contributes to operational efficiency.

Accreditation therefore acts as a catalyst to national economies in two ways – by helping domestic companies pitch for business abroad and by promoting confidence in imports from other countries.



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