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WTIA CEO UPDATE

In the last month, I visited both Western Australia and the Northern Territory, where I met with industry representatives, government departments and local members. Discussions focused primarily on the need for improved welder training, particularly in light of safety concerns.

While in Western Australia, I had an extremely positive meeting with Monadelphous. We discussed the opportunity of working together to provide WTIA accredited training to welding inspectors and supervisors in Western Australia. This concept of collaborating with industry and training organisations to deliver tailored, industry-specific training was further discussed when I met with BAE Systems, Civmec and Austal.

Following a meeting with the West Australian Department of Commerce, I feel that there may be the opportunity for the WTIA to collaborate with the State Government on improving the welding capability for defence projects in Western Australia.

I also met with the West Australian Department of Mines and Petroleum to discuss safety issues on mine sites, particularly the problems associated with qualified welders and weld procedures for structural repairs. As a result, the WTIA has agreed to investigate training courses in Western Australia, specifically to address issues within the mining industry.

I was pleased to give presentations at the Australian Oil and Gas Conference, and to local members, on the Australian Welder Certification Register (AWCR) whilst in Perth. The AWCR was met with strong industry support, particularly given the opportunities that certification offers West Australian welders.

We already have 160 welders registered on the AWCR, with this number growing every day. I urge all members to get behind the AWCR, and register as soon as possible. For more information and to register on the ACWR, please visit: www.awcr.org.au.
My last stop in Perth was a visit to Austal, where I had the opportunity to see a hull test section of the Pacific Patrol boats, which was very interesting. My thanks to Mark Keeler, Austal’s Welding Engineer, for showing me around.

My thanks also goes to Doug Hawkes, Managing Director of Structural Integrity Engineering, who has very kindly organised a number of important meetings for the WTIA recently, including with BHP, Sandvik, and the Department of Mines and Petroleum. Doug has been of great assistance. For more information about Doug and his company Structural Integrity Engineering, please see the breakout box below.

I also visited the Northern Territory this month, where I had the opportunity to meet with a number of our members. Many voiced their concerns over the distribution of works to overseas fabricators and imports (rather than to local fabricators), and the resultant potential safety issues present in local projects.

As a result, I met with the Chief of Staff of the Hon. Ken Vowles, Minister for Primary Industry and Resources. I raised these member issues with the Minister’s office, and have been assured that the issues will be presented to the Chief Minister’s Office.

Finally, I had an excellent visit to Charles Darwin University, during which the course curriculum for their Certificate III in Engineering (Fabrication Trade) was discussed in detail. Our discussions focused primarily on introducing more face-to-face, hands-on welding training into the syllabus. Thank you to Rohan Badenhop, Team Leader of Charles Darwin University’s Metal Trades and Maritime Team, for facilitating this meeting.

It was pleasing to note during my recent interstate travel that a number of people I met with expressed interest in joining (or re-joining) the WTIA.

If you know of anyone who could benefit from a WTIA membership, please encourage them to join via the WTIA website, or to email membership@wtia.com.au with any questions.

Geoff Crittenden
WTIA CEO

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Doug Hawkes, Managing Director and Principal Structural Engineer of Structural Integrity Engineering

Doug has over 20 years of experience in the field of mining structures, with significant experience in the design and design auditing of bulk materials handling machinery and mining and heavy industrial infrastructure, including incident and failure investigations. This experience extends to a detailed knowledge of Australian and International structural design, materials and fabrication standards, including being drafting leader for the revision of Australian Standard AS 4324.1. He holds a Bachelor of Civil Engineering, was the first Australian awarded an IIW International Welded Structures Designer Diploma and is currently mid-way through study for a Bachelor of Laws. Doug’s company, Structural Integrity Engineering (SIE) is a specialised, structural engineering consultancy, which has been operating since 2000. SIE provides high quality, specialist structural engineering to mining, ports, heavy industrial companies and large infrastructure asset owners.
In late February, the Victorian Division of the WTIA visited ATTAR’s (Advanced Technology Testing and Research) facility in Keysborough. During the visit, Dr Adrian Grosvenor and Dr Darren Cram gave a presentation on Forensic Failure Analysis.

The presentation explained what Forensic Failure Analysis is, and why it is needed in the manufacturing and legal industries. Dr Grosvenor and Dr Cram explained the Forensic Failure Analysis process, which includes: the collection of background information and samples; various types of testing; interpretation of results to determine the root cause of failure; and any recommendations that may be required to prevent a similar failure occurring in the future. The presentation concluded with two case studies of welding related failures. Many questions were asked and were well answered by the presenters.

Following the presentation, members had the opportunity to tour ATTAR’s facility and see the types of equipment used in Forensic Failure Analysis.

ABOUT ATTAR
Founded in 1986, ATTAR was established to conduct materials testing and research using the most advanced techniques available and to provide non-destructive testing training to Australian industry.

Gradually expanding capabilities to meet market demand, ATTAR expertise now encompasses an expansive array of non-destructive evaluation and materials engineering methodologies, as well as condition monitoring of floors, structures and vessels, and expert witness services. For more information, visit: www.attar.com.au

UPCOMING MEETING
The next Victoria Division meeting will include a presentation by Geoff Crittenden (WTIA CEO) on the development and implementation of the Australian Welder Certification Register.

Event details:
• Date: 30 March (please note the change of date from 23 March)
• Time: 4.30pm
• Venue: Vet Assess, 485 Albert Street, East Melbourne

For further information, contact Robert Vernon on 0487 400 002 or robvernon@bigpond.com

VIC CONTACT
Robert Vernon
Coordinator
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The WTIA is pleased to report that the very first welders have been registered on the Australian Welder Certification Register (AWCR). These welders are part of the team working on the WestConnex project in Sydney, who recently completed a WTIA designed training course.

In late 2016, WestConnex (the New South Wales Government body responsible for upgrading and building new motorways in Sydney) collaborated with the WTIA to develop welding procedures for the repair of Tunnel Boring Machines (TBMs). These TBMs are being used as part of construction activities on both the M4 East and the New M5 projects.

A three day training package was developed at the end of 2016 and delivered by NSW TAFE trainers in January and February 2017 at Lincoln Electric Company in Padstow. The training qualified existing and future WestConnex welders on the welding techniques required for maintenance activities on the TBMs. Significantly, the training resulted in the welders being the first to be registered on WTIA’s Australian Welder Certification Register (AWCR).

Louis Duchesne, a boilermaker working on the WestConnex project, was the very first welder certified under the AWCR. Louis is currently working on the WestConnex M4 East project, carrying out tasks such as repairing cutter heads, hardfacing in the tunnel, and fabrication in the workshop.

According to Louis, “The process of getting certified under the Australian Welder Certification Register was very straightforward.”

“For anyone working as boilermaker, or working in the welding industry in general, it would be very beneficial to undertake the training developed by the WTIA and delivered by NSW TAFE. For anyone that hasn’t worked on a tunnelling project before, the course would be really helpful—it would help them know what to expect when they arrive on-site.”

“I think it’s great that welders and boilermakers now have the opportunity to be certified by an independent third party. Rather than having to explain what you’ve done, and what qualifications you have, you can just tell your employer to take a look at the WTIA site. It makes it the process much easier,” said Louis.

The AWCR provides a national framework for qualifying and testing welders to International Standard ISO9606-1. The AWCR allows qualified and certified Registered Welders (RW) to be able to work on any site without further testing resulting in a significant cost saving to industry.

It also provides industry with access to a database of welders with up to date certification and generates data for a skills gap analysis to enable development of training to upskill the workforce. For more information, visit: www.awcr.org.au
South Australia’s defence industry has seen the establishment of a number of new programs, and the success of various existing programs over the last few months. Just some of these are outlined below.

BAE SYSTEMS AUSTRALIA LAUNCHES NATION-WIDE INNOVATION NETWORK

BAE Systems Australia has selected the Universities of Adelaide and South Australia as foundation partners for a nation-wide initiative that will drive research, development and innovation of technologies that are critical to supporting the Australian Defence Force.

BAE will contribute up to $10 million over the next ten years to establish the Joint Open Innovation Network to support new university engineering scholarships, internships and undergraduate industry placements.

The Joint Open Innovation Network will focus on the upgrade of the Jindalee Operational Radar Network (JORN) and the development of future JORN and intelligence surveillance reconnaissance capability. It will also establish an Innovation laboratory, jointly developed by BAE Systems together with the University of Adelaide and University of South Australia to allow industry and academia to work together to advance defence technologies.

FUTURE DESTROYER HOBART DEPARTS ON SEA ACCEPTANCE TRIALS

Future destroyer Hobart departed the wharf in January to undertake a second round of more advanced Sea Acceptance Trials, off the coast of South Australia. Following the success of Builder’s Sea Trials in September 2016, this phase of trials is the formal testing and acceptance of the highly efficient and capable platform system, proving the ship for its delivery to Defence later this year.

MOU SIGNED: FINCANTIERI AND FLINDERS UNIVERSITY

Two Flinders Business School students will head to Italy for internships, sealing a new partnership backed by a Memorandum of Understanding (MoU) between Fincantieri, one of the world’s largest shipbuilding groups based in Trieste, Italy, and Flinders University, based in Adelaide.

Within the Future Frigates SEA 5000 program, which foresees the construction of nine frigates for the Royal Australian Navy, Fincantieri is one of three shipbuilders short-listed by the Australian Government to participate in the Competitive Evaluation Process.

Fincantieri’s burgeoning partnership with Flinders puts the South Australian institution in a strong position to pick up even more lucrative research opportunities under the SEA 5000 program.

2017 PROGRAM OF EVENTS

The South Australia Division committee is currently planning a 2017 program of events, including a number of technical nights. If you or your company would like to host a WTIA member event, please contact Paolo Corronca (WTIA Technology Manager) on p.corronca@wtia.com.au

SA CONTACT

Paul Bettison
Chairman
Bettisoneng@optusnet.com.au

Future Destroyer Hobart Sea Trials.
WA DIVISION NEWS

AUSTRALIAN WELDER CERTIFICATION REGISTER INFORMATION SESSIONS

Geoff Crittenden (WTIA CEO) recently presented two extremely well-received information sessions on the Australian Welder Certification Register (AWCR) in Perth. The first was at the February Western Australia Division meeting. The second of these presentations was at the Australian Oil & Gas Exhibition in Perth.

Geoff’s presentations covered topics such as the process involved in welder certification, the benefits that AWCR has to offer individual welders and corporate members, as well as how to become an Approved Training Body.

The Australian Welder Certification Register (AWCR) provides a national framework for qualifying and testing welders to International Standard ISO9606-1. It:

• Allows qualified and certified Registered Welders (RW) to work on (possibly) any site without further testing, resulting in a cost savings to industry.
• Provides industry with access to a database of welders with up to date certification and details of their career history.
• Generates data for a skills gap analysis which will allow the development of a detailed suite of training initiatives to upskill the workforce.
• Runs on the WeldQ platform; an internet enabled cloud based system with a mobile app.

For further details, visit: http://awcr.org.au

2017 PROGRAM OF EVENTS

The West Australia Division committee is currently compiling a program of events for 2017. These events will include everything from technical presentations, right through to site tours.

Our first committee meeting for 2017 will be held on 8 April at the South Metropolitan TAFE, Burslem Drive, Thornlie.

If you or your company would like to be a part of our 2017 program of events, please contact Louise Petrick (WTIA Technology Manager) on l.petrick@wtia.com.au.

WA CONTACT

Clay Williams
Chairman
clay@qsmfabrication.com.au

The Australian Welder Certification Register user interface.
TOWNSVILLE TECHNICAL EVENING

In conjunction with North Queensland Testing Inspection & Calibration Services (or TICS for short), the Queensland Division recently held a technical evening in Townsville, hosted by Bruce Ham (WTIA’s Chief Technology Officer). The event was extremely well-received with more than 20 members in attendance.

Bruce covered a number of important topics during the night, most notable the launch of the Australian Welder Certification Register (AWCR) and recent changes to industry standards, including AS5131 and AS1554.

AUSTRALIAN WELDER CERTIFICATION REGISTER

The AWCR provides a national framework for qualifying and testing welders to International Standard ISO9606-1. It allows qualified and certified Registered Welders (RW) to work on any site without further testing, resulting in a significant cost saving to industry. It also provides industry with access to a database of welders with up-to-date certification and details of their career history. Plus, the AWCR will generate data that enables skills gap analysis which will allow the development of a detailed suite of training initiatives to upskill the workforce.

The AWCR was very well-received by all in attendance, particularly as many local Townsville members have indicated that there are issues around the varying quality of welders’ work, experience and expertise. This is particularly pertinent given the imminent commencement of the Adani coal mine in the Galilee Basin.

AS/NZS5131 Structural steels – Fabrication and erection was published in December 2016, which was modified after consideration of public comment arising from the initial public comment draft.

It is expected that this will lead to the fabrication and erection components in AS4100 being withdrawn and reference made to AS/NZS5131.

AS/NZS1554

Recent meetings of the Standards Australia Structural Steel Committee WD-003 have resolved to prepare a minor text amendment to AS/NZS1554.3 Structural steel welding – Welding of reinforcing steels. The draft amendments are currently being prepared and will be released for public comment shortly. The Committee will prepare correction amendments to parts 4 and 5 of AS/NZS1554, primarily in section 6 of both standards. Other items that require correction will also be addressed at the same time.

CHANGES TO STANDARDS

Standards are living documents which reflect progress in science, technology and systems. To maintain their relevancy, all Standards are periodically reviewed, and amendments and new editions are published.

At the Townsville event, Bruce covered a number of developments that have occurred in relation to Standards governing welding of structural steel.

AS/NZS5131

A revised version of AS/NZS5131 Structural steels – Fabrication and erection was published in December 2016, which was modified after consideration of public comment arising from the initial public comment draft.

It is expected that this will lead to the fabrication and erection components in AS4100 being withdrawn and reference made to AS/NZS5131.

AS/NZS1554

Recent meetings of the Standards Australia Structural Steel Committee WD-003 have resolved to prepare a minor text amendment to AS/NZS1554.3 Structural steel welding – Welding of reinforcing steels. The draft amendments are currently being prepared and will be released for public comment shortly. The Committee will prepare correction amendments to parts 4 and 5 of AS/NZS1554, primarily in section 6 of both standards. Other items that require correction will also be addressed at the same time.
WTIA NEWS & UPDATES

WELDQ: REGISTER NOW
Over the next six months, the current public database of WTIA and IIW Qualified and Certified welding personnel will be phased out and replaced by the WeldQ System.

To protect the integrity of the data on the new system, and update contact details, we request that all qualified and certified personnel register at: https://wtia.weldq.com/applicant/login

Once registered, please upload scanned or photographed copies of your original WTIA or IIW Diplomas, Certificates or Wallet ID cards. Qualifications and certifications will be verified by audit against our master records.

For instructions on how to register, please visit: http://awcr.org.au/welders/how-to-register/

If you have any queries about how to register, the quickest way to contact us is via the online Contact Form.

WANT TO GET QUALIFIED, BUT NO TIME FOR TRAINING?
Try the Alternative Route
The alternative route is aimed at individuals who may already have experience in a job at a particular level, without holding the appropriate qualification.

These individuals will have already gained full or part knowledge of the syllabus and be able to demonstrate their capability to proceed to examination directly without compulsory attendance at an approved training course. Individuals are assessed based on their experience, education, training, and practical work experience in welding at the relevant qualification level.

The assessment process involves a paper assessment, completion of a case study project, presentation to a panel of examiners and oral interview. Success in the assessment enables you to sit the relevant exams. A pass in the exams leads to the award of the relevant qualification.

The alternative route is available for: International Welding Practitioner (IWP), Specialist (IWS), Technologist (IWT), Engineer (IWE), Inspector – Basic (IWI-B), and Inspector – Standard (IWI-S).

NOW’S THE TIME!
GET INVOLVED IN YOUR STATE’S WTIA COMMITTEE
The WTIA is extremely grateful for the contribution that many of our members have made, volunteering their time and energy to participate in our state-based Committees.

State committees perform various roles. They: act as local contacts, informing Head Office of the specific challenges in their state; are the voice of the WTIA voice in their local community; give the WTIA information on what we can do to help in their local area.

If you would like to join your state’s Committee contact: Rebecca Hansen (WTIA Membership Coordinator) on 02 8748 0135 or r.hansen@wtia.com.au by 15 March.
For over 60 years, Australia has had Certified Welding Supervisors (as well as those not certified). They have played a major role in the practical achievements in the welding industry from the 1930s, right through until the present day.

The first certification was in place from the 1930s to 1966. It was ‘Welding Supervisor’, certified by the Australian Welding Institute (now the WTIA). Then, AS CB 14 – Part IV was introduced for pressure equipment. This was revised in 1978, and renumbered to the current AS 1796 Certificate 10. This certification was specifically designed to suit the Pressure Equipment Industry.

Certification to AS 1796 was performed by Pressure Equipment Statutory Authorities until around 1986, when there was a gradual shift to WTIA certification, in order to unify welding supervision quality through common exams across Australia. It was an early start to the current industry self-regulation.

This Standard has proved itself as a world-class document. It is practical, industry driven, and has an excellent record in industry for all common materials and processes for Pressure Equipment. Plus, it has been proven by many examinations and certifications.

Standard AS 2214 was developed to suit the Structural industry. It was designed to be similar to AS 1796 Certificate 10, but was restricted to structural steel and without PWHT, much NDT and pressure testing. This certification has also proved valuable. For over 50 years, government inspectors usually held welding supervisor qualifications, particularly post WWII when there was a huge manufacturing expansion. On the other hand, Structural Welding was not subject to the same government controls as for Pressure Equipment.

To provide for inspection only, from March 1998, the WTIA gradually introduced the Welding Inspectors Certificate to cover general inspection only instead of the overall supervision (and inspection). This did not require the know-how, experience and examination required for
TRAINING & CERTIFICATION

Welding Supervisors – but had much overlap. Certified Welding Inspectors for Pressure Equipment were not needed because of the proven use of Certificate 10.

Certified Welding Inspectors are primarily qualified to inspect welding and final welds, as well as to ensure fabricators, examiners, documentation, tests and products are in accordance with requirements (usually for, or on behalf of, the principal or end user). They also are used by large manufacturers in Q&C or inspection departments, and normally are not involved in many supervised activities.

In the last 10 years, various overseas qualifications have gradually been introduced and used in Australia, such as various IIW qualifications through WTIA and others by overseas organisations.

To sum up:

• Certified Welding Supervisor AS 1796-Certificate 10 is preferred for Welding Supervision and Welding Inspection for Pressure Equipment. AS 2214 or Certified Welding Inspectors are not normally accepted for this supervision.
• AS 2214 or AS 1796-Certificate 10 are preferred for welding supervision of structures
• Persons certificated to AS 1796 Cert 10 or Certified Welding Inspectors (CSWI or IIW IWI-S) are preferred for fabricator or welding inspection of Pressure Equipment.
• Persons certified as Welding Inspectors to AS 2214, AS 1796, CSWI, IWIS are preferred for welding inspection of high risk, quality or cost structures. Persons with IWI-B or CWI certification are not normally used for full inspection of these structures.
• Certified Welding Supervisors and Certified Welding Inspectors can overlap to a fair degree in the type of work for which they are competent.
• Some “uncertified” persons can and do perform the duties or tasks and have similar responsibilities to “certified” supervisors and inspectors provided they are acceptable to the parties directly accountable. They usually have a disadvantage in lacking suitable documented proof (unless they are well known in an organisation for their actual excellent performance).
Supported by the Welding Technology Institute of Australia, National Manufacturing Week’s (NMW) Welding Technology Product Zone will provide a dynamic environment of live demonstrations of welding, heat-treating, joining and associated products and technologies.

This dedicated area within NMW will attract a broad showcase of new products and expertise from companies, including but not limited to:

**BOC Limited, Stand 1740:**
For more than a century, BOC Limited’s gases and expertise have contributed to advances in industry and everyday life, including steelmaking, refining, chemical processing, environmental protection, wastewater treatment, welding and cutting, food processing and distribution, glass production, electronics and health care.

**Saint Gobain Speciality Firms, Stand 1930:**
Saint-Gobain Specialty Films has over 40 years expertise offering the broadest line of high-performance polymeric films, membranes, coatings and laminations world-wide. Custom solutions deliver the optimal combination of temperature, chemical, release, friction, purity, and dielectric performance in a variety of applications and markets.

**Gullco, Stand 1646:**
Gullco excels in the design and manufacture of Extrusion Tooling for multiple-layer applications for Medical, Automotive and Industrial tube and hose products. With nearly a half century of experience producing Extrusion Tooling for plastic and rubber in the USA, Guill has developed a number of patented and proprietary tooling features leading to unique solutions for the extrusion process.

**Inductotherm, Stand 1436:**
Bringing together 40 companies with 38 manufacturing facilities in 19 countries, Inductotherm delivers innovative products globally. Customers rely on Inductotherm, Inductoheat, ThermaTool, Radyne, Consarc and other trusted brands in the Group to provide outstanding equipment and services.

**Lincoln Electric, Stand 1546:**
Lincoln Electric is a global manufacturer and one of the best in producing the highest quality welding, cutting and joining products. Their new world class customer experience centre and applications lab are staffed with a team of engineers, metallurgists, and technicians.

A full list of exhibitors is available on the National Manufacturing Week website.

The Welding Technology Product Zone is one of eleven specialist areas, along with Advanced Materials, Air Technology, Automation and Robotics, Digital Manufacturing, Electrical, Engineering, Process Control and Instrumentation, Research and Development, Safety, Supply Chain and Logistics.

National Manufacturing Week will run from 9 to 12 May 2017 at the Melbourne Convention and Exhibition Centre.

Registrations are now open at: nationalmanufacturingweek.com.au.
UPCOMING EVENTS

Whether you need to brush up on skills acquired years ago, or want to try your hand at something new, there’s sure to be an event for you. For further details on any of the events or examinations listed below, contact events@wtia.com.au or +61 (0)2 8748 0100.

MAY 2017
Welding Technology Institute of Australia Annual General Meeting (AGM)
*Melbourne, 9 May*
The WTIA will hold its Annual General Meeting (AGM) on Tuesday 9 May 2017 at 4.30pm at the Melbourne Convention & Exhibition Centre (within National Manufacturing Week).

All WTIA members are invited to attend, meet the WTIA Council members, and participate in the discussions.

National Manufacturing Week
*Melbourne, 9 to 12 May*
With the theme of ‘Delivering the Industry 4.0 Revolution’, National Manufacturing Week (NMW) will be held in Melbourne this year. The conference and exhibition is free to attend and will feature an exciting array of products and companies in its dedicated ‘Welding Zone’. The WTIA will also have its own stand at the exhibition, so make sure you visit us. For details, visit nationalmanufacturingweek.com.au

WTIA & IIW EXAM DATES
IWS and WTIA Welding Supervisor
• 14 & 15 June 2017
• 9 & 10 November 2017

IWI-B and IWI-S
• 6 & 7 April 2017
• 31 August & 1 September 2017 (depending on numbers)
• 2 & 3 November 2017

Please note that these dates are subject to change. For further information, please contact qnc@wtia.com.au.
EXPAND YOUR AUDIENCE. GROW YOUR BUSINESS.

Advertise with the WTIA Today

WTIA is happy to offer you and your business the opportunity to promote your products and services directly to the decision makers in the welding and fabricating industry. We have a range of cost effective advertising and editorial packages available, in both Weld Connect and the Australian Welding Journal.