



## Editorial

As we welcome 2012, challenges for the Australian manufacturing industry will likely continue, to which the steel industry is integral. Continued strengthening of the \$AUD, globally weak economic trading conditions and domestic uncertainty around the implications from the introduction of the carbon tax and increased government regulation on industry are but some of the challenges ahead.

In uncertain operating environment the pressures to make the right decision will be based on uncertain and incomplete information. We should always consider what learning insights we can gain, with the benefit of hindsight, from examining the past.

In this edition we look back and reflect on the highlights of the past twenty-two years of the Australasian (iron and steel) Slag Association (ASA). There have been many involved in building the success of our association, one in particular being David E Jones. Sadly, David passed away 19th December 2011, after succumbing to cancer.

David was chief editor of Connections and was always eager to make each edition better than the last. He had a keen eye for scoping new, innovative stories on slag and truly thrived off promoting its many reuses. Connections had become a personal reflection of his commitment to the slag industry. During many of our visits to David whilst in hospital, Connections was always discussed. During his last days, he managed to muster up a single whisper- "what have we got for the next edition of Connections?". This was a project very dear to his heart. We will take great pride in continuing his legacy with the same creativity and professionalism that he portrayed year after year.

Now, looking forward to the year ahead the association will be undertaking a number of new



First ever 1998  
Connections newsletter



Mt Prosser

projects and will be involved in the CMIC 2012, all making for a busy 2012. In this edition Australian Steel Mill Services (ASMS) supply almost 1 million tonnes of uncrushed Blast Furnace Slag for Port Kembla Port Corporation's 6 hectare Outer Harbour reclamation project. With such a huge project, deliveries were required to begin in August 2011 and all material will be in place by April 2012. Concrete Guide Review concluded in late 2011, resulting in five new association Reference Data Sheets (RDS). These documents will compliment the associations 'Guide on the Use of Iron and Blast Furnace Slag in Concrete' published in 1997.

The ASA has embraced the world of social media marketing with its newest edition to the association website. A Twitter newsfeed now appears on the right hand side of the home page and features regular updates of what's new in the industry. This feature is especially convenient as it does not require any member to have their own Twitter account to read our updates or click on our links, it is accessible to anyone. We are very interested to hear all of your feedback. <http://www.asa-inc.org.au>

There have been industry updates and people changes within some of our members. BIS Industries has adopted a new brand name, whilst Michael Friedrich and Robert Cignarella are beginning new endeavours in their recent roles and responsibilities with Independent Cement and Lime and ASMS respectively.

Lastly, the association will be attending and manning a display at CMIC 2012 between September 19-22. We are eager to learn of new industry developments and look forward to reporting back to you on our experiences.

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# In memory of the life of David E Jones

**1945- 2011**

Those of us who had worked with David for decades and thought we knew him well were still surprised when attending his thanksgiving service at the Corrimal Uniting Church on Friday 23 December 2011, and heard of the varied interests of his younger days before his involvement with the Slag Association.

Here was a man who whilst training in Port Kembla as an industrial chemist at the then Australian Iron and Steel Pty Ltd (now BlueScope) was involved in an array of activities quite remote from steel making, such as promoting rock concerts and surf movies and owning or managing discotheques and rock groups in Wollongong and Sydney.

David had a lifelong close involvement with the Uniting Church and in particular with its youth groups, and worked with Wollongong Council on plans for a Wollongong Youth Centre. Maureen, David's wife of 34 years, said two of his major passions, when they first met were the Wollongong Show Society, for which he managed entertainment and promotions, and the Leisure Coast Tourist Association.

Here was a man who was always ready to accept a challenge particularly for the product that he became involved with in the steel industry, a by-product of the manufacture of iron and steel—iron and steel slags.

His company, Australian Iron and Steel Pty Ltd, had entered into a long- term contract for the Ed C. Levy Company of Detroit USA in 1988 to process and market the iron and steel slags out of its Port Kembla complex. The two companies realised there was a resistance in the market place for the acceptance of a product once considered to be a residue or waste.

A decision was made to call a meeting in April 1990 of interested parties to form an association to promote slag products, modeled on the National Slag Association of United States, which began in 1918. And so the Australasian Slag Association was born, with David representing Australian Iron and Steel Pty Ltd and Peter Hanley, a former NSW State Government Public Works Department Manager, as Ed C Levy's representative.

History has shown that from this modest beginning, the Slag Association has grown in stature and credibility with David as one of its driving forces particularly in the early formative years. In more recent times David's promotional skills have been employed assisting in the production of the Association's journal 'Connections'.

The world of the Uniting Church and indeed the steel industry is poorer for the departure of David Jones and his communication and technical skills.

In February 2011 David was diagnosed with a brain tumour, which was successfully removed, after which followed a period of remission.

However elements from a melanoma removed from his shoulder some 20 years ago is now believed to have caused the brain tumour and other cancers.

David spent nearly ten years as Chairman of the Illawarra Presbytery of the Uniting Church and his standing in his church as well as his work and community links was reflected in the overflow of friends who attended his service, filling the church and also requiring the use of an adjacent hall in which the televised service was screened.

At age 66 David was much too young to depart a life during which he had touched the lives of so many people.

David is survived by wife Maureen and children Matthew, Peter and Samuel.

All members of the Association extend their sincere sympathy to the Jones family.



David E Jones and Craig Heidrich with Marie Bashir, Governor of New South Wales

## Michael Friedrich profile

Eighteen years ago Michael started out working at Premix Concrete where he moved through various technical and laboratory management roles. As he moved on from Premix Concrete he found himself facing greater challenges during his four years at Sunstate Cement. His position at Sunstate Cement was the Technical Services Manager in Queensland and he found it to be a very informative period.

Michael has recently undertaken a new role as Sales and Marketing Manager of New South Wales with Independent Cement and Lime.

He looks forward to taking on new challenges and experiences and is eager to find out what else is in store for him.



Michael Friedrich



## Finalisation of the Concrete Guide Review

In 2010, the associations National Technical Committee (NTC) conducted a review of the 'Guide on the Use of Iron and Blast Furnace Slag in Cement and Concrete' first published in 1997. The review concluded that specifiers and users of concrete, component materials and other slag based products required up to date and new information on slag products with a focus on providing advice on how best to specify slag materials for design and constructional benefit. Some key areas included:

- The sustainability debate and the role slags can play both as aggregates and supplementary cementitious materials (SCMs)
- The wider availability of neat milled slag for use as a SCM for concrete
- Changes to Australian standards for cements, SCMs, concrete (AS1379) and concrete structures (AS3600), and
- New developments on AS2758.1.

A new approach was taken with the format of this review. It was decided that rather than one, large document, it would be broken down in to 5 individual datasheets, which compliment the associations published guides.

1. ASA Data Sheet 1: Blast Furnace Products- Aggregate and Cementitious Products
2. ASA Data Sheet 2: Blast Furnace Slag Aggregates- Properties, Characteristics and Applications
3. ASA Data Sheet 3: Blast Furnace Slag Cements- Properties, Characteristics and Applications
4. ASA Data Sheet 4: Blast Furnace Slag Cements and Aggregates- Slag Binders and Aggregates and Australian Standards
5. ASA Data Sheet 5: Blast Furnace Slag Cements and Aggregates- Enhancing Sustainability

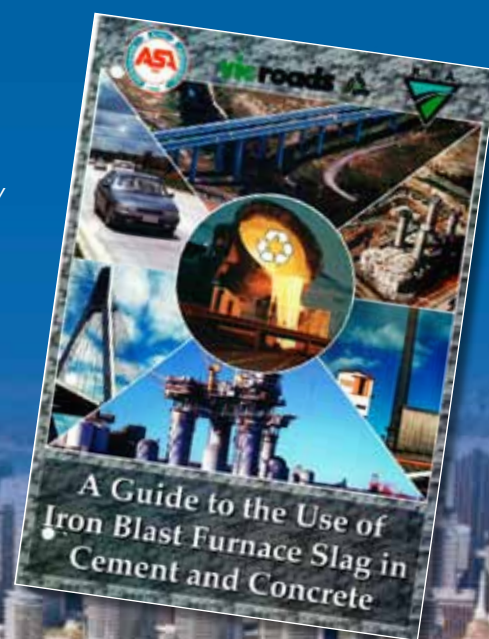
These new datasheets have all been published and are available for your perusal at the ASA website

<http://www.asa-inc.org.au/reference-data-sheets.php>

A special acknowledgement is necessary for those authors who developed the 1997 original version, which was relevant to the industry for fifteen (15) years.

Len Anderson  
Fred Andrew- Phaedonos  
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Gordon Dobson  
Alan Dow  
Chris Francis  
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Brian Heaton  
Ihor Hinczak  
Wayne James  
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Lance Midgley  
John Pattison  
Doug Prosser  
Paul Ratcliff  
Andrew Robertson  
Martin Venour  
Mike Veysey  
Tom Wauer  
Geoff Youdale



Original 1997 Guide

### Company Members

A primary role of our Association is to bring together Slag Producers, Processors, Customers & Suppliers to the Slag Industry. Our activities cover technical developments, plant operations and processes, education and promotion. If you would like more information on the Association and how you can become involved, simply complete the information section at the end of this newsletter. Current membership is as listed.

Australian Steel Mill Services Pty  
BIS Industries  
Bluescope Steel Ltd (Port Kembla)  
Cement Australia  
Holcim Pty Ltd  
Holcim NZ Ltd  
Harsco Metal Holdings Pty Ltd  
New Zealand Steel Minerals  
OneSteel Limited  
Roads and Maritime Services  
Steel Cement Pty. Ltd

Steelstone Service  
Swinburne University of  
Technology  
University of Newcastle  
University of Queensland  
University of Wollongong

### Personal Members

Anderson, L  
Gregory, G  
Hadi, M (Hon.)  
Hanley, P (Hon.)  
Heaton, B (Hon.)  
Hinczak, Dr, I (Hon.)  
James, W (Hon.)  
Jones, D E (Hon.)  
Prosser, S D (Hon.)  
Venour, M (Hon.)

**Related Associations** | Euroslag | National Slag Association (US) | Nippon Slag Association (Japan) | European Slag Association (EU)

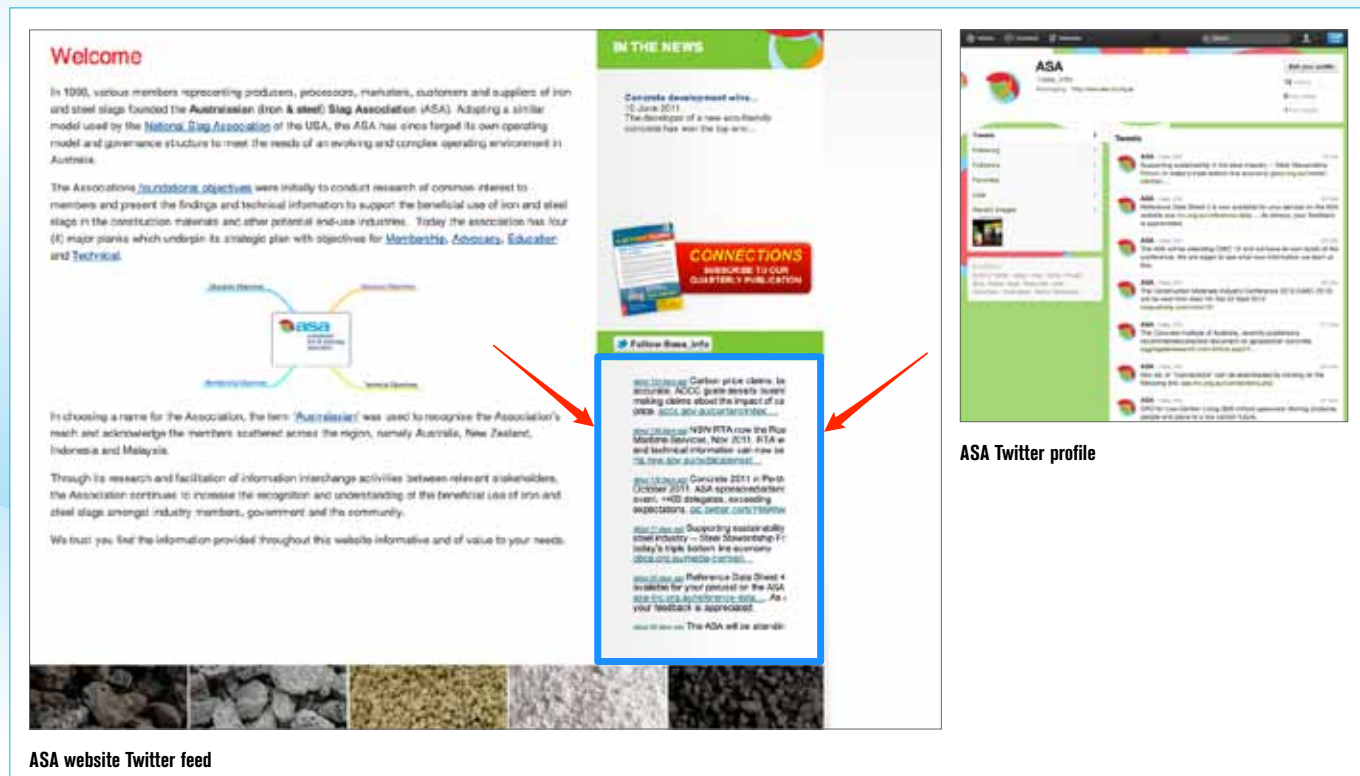
# ASA website introduces new Twitter feed

The ASA has officially jumped upon the social media bandwagon with its new introduction of a twitter account. Although the most common use of twitter is to 'follow' other people and organizations of interest, in this case we have linked all of our 'tweets' to a newsfeed which streams on the home page of the ASA website.

This unique approach enables anyone at all to view our latest updates on the association, whether they may have their own account or not. It would be ideal if those who had an account would please follow us, and equally we could follow you and exchange information to ensure we stay abreast of industry news.

Twitter is also quite useful for more than just news consumption. When used properly, Twitter is a powerful marketing tool for companies to keep potential and existing customers up to date on their products and offers and for general public relations. It has grown in to more than just a messaging or status updating service and has the potential to vastly spread the effective reuse of slag beyond its current market.

The association is very excited to discover what this step forward in the social media marketing world will bring.

The image shows a screenshot of the ASA website. On the left, there's a 'Welcome' section with text about the association's history and objectives. In the center, there's a 'Follow these info' section with a blue box highlighting a tweet about carbon price claims. On the right, there's a 'Twitter' section showing a list of tweets. Red arrows point from the 'Follow these info' section to the highlighted tweet and the 'Twitter' section. The caption 'ASA website Twitter feed' is at the bottom left of the screenshot area.

**Welcome**

In 1999, various members representing producers, processors, marketers, customers and suppliers of iron and steel slags founded the **Australian Iron & Steel Slag Association (ASA)**. Adopting a similar model used by the **National Slag Association** of the USA, the ASA has since forged its own operating model and governance structure to meet the needs of an evolving and complex operating environment in Australia.

The Association's **foundational objectives** were initially to conduct research of common interest to members and present the findings and technical information to support the beneficial use of iron and steel slags in the construction materials and other potential end-use industries. Today the association has four (4) major planks which underpin its strategic plan with objectives for **Membership, Advocacy, Education and Technical**.

**Follow these info**

**ASA Twitter feed**

## OEHL Waste and Environment Levy Review

On 17 January 2012, the Minister for the Environment, Robyn Parker, announced an independent review of the waste and environment levy ('waste levy'). The review was identified as a priority action under Goal 23 in NSW 2021: A plan to make NSW number one.

The government press release promotes the waste levy as an effective tool in increasing recycling in New South Wales by making the recovery of waste more financially attractive than sending it to landfill. The review is canvassing stakeholder views on how the levy operates as well as ensuring that it continues to increase recycling and reduce the waste that goes to landfill. Contributions are invited across four key areas:

1. the impact of the waste levy on the recycling industry
2. the impact of the waste levy on households
3. funding arrangements to facilitate greater investment in infrastructure with local councils and industry
4. the impact of the waste levy on illegal dumping, including the proper disposal of asbestos.

The association will prepare and submit a submission to the enquiry.

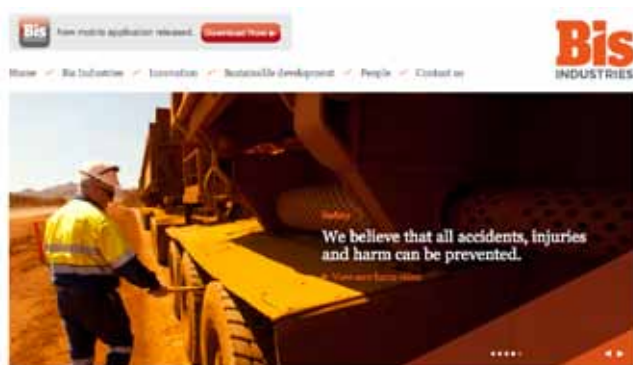


# A New Era for BIS Industries

Over the last 5 years, Bis Industries has undertaken a substantial transformation resulting in a focussed alignment of several existing businesses and acquisitions into a solid and effective team.

With a history dating back to 1875 we recognised our heritage was important, yet our future growth was dependent on a unique brand with a clear strategy led by an aligned team driving the values we share.

Under our new brand we are known only as Bis Industries, a name that unites our team under the one identity and makes a clear statement regarding who and what we are.



BIS Industries website

Today, Bis Industries is a leading provider of tailored solutions to the mining, steel and resources industry. We work with the world's biggest companies. We process, handle, haul and support millions of tonnes of material across Australia. We build big infrastructure and we solve problems for our clients. And if solutions don't exist, we create them.

We offer a vast range of services for our customers ranging from onsite materials handling in load and haul, slag and scrap handling, underground equipment hire and haulage and large scale infrastructure projects such as the Pulverised Coal Injection Plant in Port Kembla.

In Whyalla we operate the slag handling and haulage for our customer OneSteel. This is a critical process in their steel making involving the use of specialised slag transporters as well as a purpose built infrastructure.

We also specialise in the provision of off-road load and haul solutions. Our Dual Powered Road Trains and Pit Haulers are specifically designed to haul loads from out of pit or top of pit over any distance without the need for rehandling.

These units are an efficient, reliable, safe, low cost, high productivity option to traditional dump trucks particularly over longer haul distances.

We continue to be dedicated to keeping our customers producing safely by taking responsibility for critical but non-core processes. At Bis Industries we build partnerships for the long haul.

For further information visit [bisindustries.com](http://bisindustries.com)

# Blast Furnace Slag for Port Kembla Outer Harbour Expansion

Australian Steel Mill Services are supplying almost 1 million tonnes of uncrushed Blast Furnace Slag for Port Kembla Port Corporation's 6 hectare Outer Harbour reclamation project. With such a huge project, deliveries were required to begin in August 2011 and all material will be in place by April 2012. Daily supply and emplacement of 5,000 tonnes requires the combined resources of ASMS, South Coast Equipment (transport) and Cleary Bros (emplacement).

To achieve the required delivery rate; ASMS are utilising a Komatsu WA600 wheel loader and CAT D9 bulldozer. SCE typically run 15 trucks on the 7km loop and Cleary Bros have a 110 tonne excavator, a CAT D10 bulldozer and a CAT 992 wheel loader, among other equipment at the reclamation site.

Port Kembla Port Corporation (PKPC) is developing the Outer Harbour at Port Kembla, NSW, to provide additional land and berthing facilities to cater for future trade growth. While the recent Inner Harbour development provides facilities to cater for the growth of existing trades, this new development has the potential to address the needs of new industry.<sup>1</sup>

Blast Furnace Slag for this project is being supplied from stockpile 31 - locally known by members as Mt. Prosser, being named in honour of the original sales manager of the stockpile area. At the end of the project, Stockpile 31 will be exhausted for the first time in over 20 years. At its peak, this stockpile contained almost 2 million tonnes of Blast Furnace Slag.

The sheer enormity of this development, and the amount of slag involved, could have a hugely positive impact on the future of the use of slag in concrete.

<sup>1</sup> Port Kembla Port Corporation



Stockpile in 2006





## CMIC 2012

The Construction Materials Industry Conference (CMIC) is a biennial conference, which is the leading construction materials conference in Australia. Similarly to 2010, the association will be attending this conference and absorbing all that CMIC has to offer. The theme of this year's CMIC is 'essential industry for Australia's future'.

Delegates to CMIC 12 will enjoy an insightful business program balanced by the opportunity to create and renew friendships at a number of entertaining social occasions. CMIC 12 promises to expand on the successes of CMIC 10 and showcase not only the construction materials industry, but also enable delegates to enjoy the warm hospitality that the city of Melbourne and its people have to offer.

It will be held at the Melbourne Convention and Exhibition Centre, from **19- 22 September 2012**. The ASA is pleased to announce that they will have a booth at this conference and encourage all attending to visit. Furthermore, we are always looking for people to help us out on the booth, if this interests you please contact the association on (02) 4225 8466.



## Robert Cignarella profile

Robert has been employed by ASMS for six years as Product Manager Concrete Aggregates and Ecocem. In this time he has been most fortunate to have dealt with some key people in the Concrete industry whom he values not just as customers, but long term friends. He spent a short time at Cement Australia before being tapped on the shoulder by Shani Smith way back in 2005.

Prior to this, he worked in the concrete industry where he started at Readymix in 1990. Robert held the position of Major Accounts Manager, for seven years. In the "good old days" concrete sales was about understanding the entire business, and customer service was paramount to our success. He then moved to Boral Concrete where he managed the second tier commercial market segment, focusing on building key relationships and offering the best solutions to both the customers and our business. His last stop in concrete was at Metromix where he was involved in sales as well as Plant Management at both Wetherill Park and Alexandria plants. He has seen many changes in the industry over the years, but is excited at the prospect of furthering his network, and promoting all slag products throughout many diverse industries.

Robert has learnt a lot about slag, and is certain the skills and experiences he has picked up along the way will put him in a good position promoting the true sustainable alternative!



Robert Cignarella

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