

# Benbow Environmental Services

## *Assessing the acoustic performance of walls and floors*

Benbow Environmental has just made the acquisition of the latest Bruel & Kjaer (B&K) equipment to assess the acoustic performances of walls and floors. (Acoustic Building Pack)

This high tech equipment includes:

- An Omni-directional loudspeaker (creates a perfect diffuse field);
- A white or pink noise generator (depending on the engineering requirement); and
- A Senheiser remote system (allowing the engineer to control the system at distance).

During an assessment this new equipment is linked to a B&K 2260 Class 1 Sound Level Meter that uses a 1/3 octave band filter. The built-in building acoustic software enables the acoustical engineer doing the assessment to calculate the result on site. The benefit of



*The latest Bruel & Kjaer equipment available at Benbow Environmental*

this feature is that it allows a certain number of adjustments to be made to the acoustic design of the partition in real time to achieve the desired rating (R'w).

Once the data is taken back to the office, specialist computer software can be used to produce a report that includes the overall rating (R'w) and the correction factor (C<sub>tr</sub> or C<sub>1</sub>). This report also includes the 1/3 octave band spectrum of the acoustic performance of the partition.

The main advantage of using such equipment is based on the high quality of the source (perfect diffuse field) and the real time results with the Sound Level Meter. The instruments help to determine whether the design and the mounting of the partition has been done accurately and if the partition does not achieve the desired rating, this assessment process enables adjustment before the building project is completed, potentially saving considerable

# Legislation Changes

## *POEO Act*

On May 1st this year, The Protection of the Environment Operations Amendment Act 2005 commenced. Considered by some as the largest overhaul of NSW pollution laws in 10 years, a number of the key changes are:

### Offences and Penalties

- The maximum penalty for companies has increased to \$5 million for Tier 1 offences, and \$1 million for most Tier 2 offences.
- The maximum penalty for individuals has increased to \$1 million for Tier 1 offences, and to \$250,000 for Tier 2 offences.
- The "no-knowledge" defence previously available to directors and managers has been removed.

### Waste regulation

- Introduction of the offence of pollution of land, which includes causing or permitting land pollution. Rather than the substance being a 'waste', the new offence focuses on the potential for it to cause harm.
- It is also now an offence to supply false or misleading material aspects of waste (for example, the waste type, classification or the quantity).

### Licensing

- Licence variation applications related to works requiring development consent will not be granted until that consent is obtained from the local council.
- The Environmental Protection Authority can refuse an application to surrender a licence where it is believed there will be on-going environmental impacts arising from an activity even after it stops.

For more information please contact our office.



**Benbow**  
ENVIRONMENTAL

## Benbow Environmental

### *Engineering a Sustainable Future for Our Environment*

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ENVIRONMENTAL

# Benbow Environmental News Update

## *Engineering a Sustainable Future for Our Environment*

*Issue 2 September 2006*

## News Update

### *New Name and New Logo*

In June 2006, our new business name and logo were unveiled. Benbow Environmental incorporates Dick Benbow and Associates (DBA), Environmental Audits of Australia (EAA), and Australian Occupational Hygiene Services (AOHS) into a single entity. The change has invigorated the company and demonstrates the long-term commitment and strategic focus of the organisation to delivering superior environmental engineering and occupational health services to clients.

## *New Website*

Coinciding with the introduction of our new name and logo, we were also pleased to launch our much awaited and talked about new website. The new website can be found at:

**[www.benbowenviro.com.au](http://www.benbowenviro.com.au)**

Thanks to George Semaan from Semcorp for his time and skill in assisting to develop it. On the website you will find a detailed reference to the range of services that Benbow Environmental can provide, as well as the details behind some of our recent project successes. Please add our new website to your Favourites!

We appreciate your feedback and suggestions regarding the new website and the other changes recently unveiled. Please email [admin@benbowenviro.com.au](mailto:admin@benbowenviro.com.au) or call our office.

## *New Staff*

Since our last newsletter was distributed, we have had the pleasure of welcoming several new staff members to our team to support the continued growth of the business:

Samantha Sims has joined us as an Environmental Scientist. Samantha previously supervised the laboratory analysis operations for a national organisation. Since joining our team, Samantha has been mainly concentrating on occupational hygiene assessments, laboratory analysis and occupational noise assessments.

Arnold Cho has taken up the position of Acoustical Engineer and has a Masters of Design Science in Acoustics. Arnold has worked locally and internationally, conducting noise assessments mostly within residential and commercial developments. Since joining us, Arnold has been heavily involved with the acoustics team.

Simone Sullivan is our new Projects Manager. Simone has a degree in Engineering and has spent her career working within the manufacturing industry in engineering, logistics or project management roles. Simone assists with environmental assessment and management projects, as well as looking after the operations of the company.

Most recently, Katrina Williams joined us to fill the Executive Assistant role and lead the administration team. Katrina brings with her a wealth of business know-how gained through her studies at university and previous experience in engineering and legal firms in New South Wales and Queensland.

Congratulations also to Paul Spittle who agreed to join the team permanently as the last newsletter was going to print. Paul, an Environmental Scientist, has been busy working mainly on Environmental Impact Statements, Statement of Environmental Effects, Noise Monitoring, and Environmental Management Systems.

### *Inside this Issue*

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### *New Brochures*

The market research undertaken in the lead up to the company re-branding indicated that many of our clients were not aware of the full range of services that we can provide. As a result, we have published two new brochures, which provide more information about our service portfolio and also demonstrate the practical application of this expertise to some of our recently completed projects. Please call our office on (02) 9890 5099 or email [admin@benbowenviro.com.au](mailto:admin@benbowenviro.com.au) if you would like a copy to be sent out to you.

### *New Email Addresses*

To reflect our new name and associated domain name, we have also updated our email addresses. The change for all our addresses is limited to the domain name (following the @), for example:  
**Old: [admin@dickbenbow.com.au](mailto:admin@dickbenbow.com.au)**  
**New: [admin@benbowenviro.com.au](mailto:admin@benbowenviro.com.au)**

Please update our details in your address book.

### *The Safety Show - 17th to 19th October 2006, Sydney Showground*

This year Benbow Environmental will have a stand at the Safety Show. Come and visit us at stand number K03, where you will be able to find out more about your occupational health obligations and the many areas we can assist with including occupational hygiene and noise assessments, dangerous goods compliance, and asbestos management. To find out more, contact our office.







## IPP Cleaner Production Program Outcomes

### *Update on cleaner production in the NSW poultry industry*

Cleaner production or sustainability is one of the hot topics of discussion at many businesses and government departments. The principles can be applied to any business, whether it's heavy industry, food manufacturing or an office building. If your business uses resources and generates waste, a cleaner production assessment can identify ways to reduce costs, improve environmental performance and increase profitability.

Benbow Environmental facilitated the "Profiting from Cleaner Production Industry Partnership Program" for Cleaner Production in the NSW Poultry Industry. The program was run by the NSW Department of Environment and Conservation (DEC) and provided matched funding to the industry cluster to implement cleaner production practices.

Six (6) poultry businesses participated in the program, which represented the leading companies in the sector equivalent to approximately 92% of total NSW poultry production. The participants included: Cordina Chicken Farms, Inghams Enterprises, Summertime Chickens, Red Lea Chickens, Bartter Enterprises and Baiada Poultry.

At each site a cleaner production team was formed and trained in the relevant principles. Benbow Environmental then helped facilitate teams in data collection, identification of cleaner production opportunities and the undertaking of cleaner production assessments at each site. Using the information collected, Cleaner Production Plans were provided to each company. On average these contained 42 potential improvement opportunities. A total of over 250 opportunities were identified through the program. Subsequent evaluation of cleaner production options involved a detailed technical, economic and environmental feasibility study for selected initiatives. Potential savings identified in the feasibility studies ranged from between \$500 and \$64,000 pa. The DEC recognised the poultry cluster as one of its top 3 programs based on the outcomes achieved by the participants.

The following are some examples of the initiatives implemented at the poultry sites involved in the program:

#### **Improved Packaging**

Summertime Chickens saved over \$60,000 per year by replacing non-reusable cardboard cartons for distributing product with reusable tubs. Previously, cartons were used to transport chicken product to customers. The cartons were then disposed of at landfill. Summertime conducted a trial with their major customer to use tubs to transport chicken products. The tubs are now returned to Summertime where they are washed and reused.



*Cardboard boxes used to distribute the product to customers were previously used once and then discarded at landfill. The use of reusable tubs significantly reduced the waste sent to landfill.*

#### **Leak Detection & Correction**

Cordina have implemented an on-going leak detection and correction program on their compressed air system. Leak detection and correction can save up to 25% of energy consumption. Cordina will save \$12,000

per year with a payback period of 0.3 years.

#### **Savings in Packaging**

At Steggles Foods, 10kg capacity cardboard boxes were used to temporarily store cooked wings and chicken bites before being packaged into smaller 1kg boxes for distribution. The 10kg cardboard boxes were replaced with reusable plastic tubs saving over 27,000 boxes, the equivalent of 1.2 tonnes of landfill and \$18,500 per annum.



*Reusable tubs to temporarily store processed chicken pieces was implemented at Steggles Foods*

#### **Composting of Hatchery Waste**

Landfilling of hatchery waste was not only expensive, but there were restrictions on the liquid content of the waste and the timing of pick ups, causing odour problems in the summer time. Inghams found that composting this waste was a substantial environmental improvement and also reduced costs of disposal. The hatchery waste is now contained in a silo and removed from site daily for composting. This has saved the company \$145,000 and diverted over 410 tonnes of waste from landfill per annum. Furthermore, the intangible environmental savings include less opportunities for odour to become a problem and reduced risk of waste entering the stormwater system.

Benbow Environmental can design a cleaner production program or assessment to suit your business' needs. We offer training in the basic principles of Cleaner Production to specific cleaner production techniques or undertaking full Cleaner Production Assessments. Contact us for more information on what implementing cleaner production techniques can do for your site.

## Environmental Compliance Audits

### *Are you in compliance with your legal requirements?*

Does your site comply with Council's development consent conditions? Are you meeting your environmental protection licence limits? Are your chemicals stored in accordance with the new dangerous goods regulations? These are just some of the questions that can be answered through an environmental compliance audit. Quite often, businesses assume they are in compliance with legal requirements but if these are not regularly checked, this can lead to issues of non-compliance particularly if you are unaware of legislation changes. Furthermore, auditing your operations and procedures can highlight areas where improvements can be made.

Benbow Environmental has qualified auditors who can undertake environmental compliance audits and environmental management systems audits to the ISO14001 environmental standard. At Benbow Environmental, audits are not limited to compliance. All audits are aimed at providing clients with pragmatic and cost effective advice to environmental concerns including noise, air and odour emissions, waste and wastewater management, dangerous goods requirements, litter management, presence of asbestos and much more.

Some of the issues highlighted during a recent audit of a site in regional NSW include:

1. The site was discharging wastewater to the sewer system but no permit was held for this activity. Most facilities that discharge wastewater to sewer are required to hold a Tradewaste permit with the appropriate water authority.
2. Inadequate dangerous goods signage. The requirements for dangerous goods signs are specified in the Occupational Health and Safety Regulation 2001, and depend on the quantity and class of Dangerous Goods held at the site. The level of signage needs to reflect the contents of dangerous goods and associated risks.

At the site, no signage was provided where containers of Class 3 Flammable Liquids were held. Warning signage was recommended so that subcontractors or others not familiar with the site were aware of the risk of fire that exists in the area.



*The flammable goods circled in the photograph need to be moved inside & dangerous goods signage provided.*



*Class 3 signs (shown on the left) also need to be erected outside the building to ensure that any contractors or other persons are aware of the flammable goods stored inside.*

3. Lack of awareness and/or signage identifying whether pits and drains lead to stormwater or otherwise. During the audit, a chemical container was stored in proximity to an unidentified drain. As no safeguards, such

as bunding, were provided this presented a high environmental risk due to the potential for a spill to enter the drain and pollute waters. Should the pit lead to stormwater, it needs to be protected from potential spills in the area. To achieve best environmental practice, a number of recommendations were made:

- Relocate the chemical to a suitable bunded and covered storage area;
- Provide identification of the drains to indicate whether they lead to stormwater or on site treatment; and
- Ensure staff and contractors are aware of this through toolbox talks and induction training.

When reporting the findings of an environmental audit, Benbow Environmental also highlights the improvements that have been made since the previous audit or where things are well managed at the site. Many of our clients are actively improving the environmental management of site operations and an audit is one way to report these to senior management. Some of the positive aspects of environmental management that were noted at the audited site included:

1. Installation of skylights to improve the natural lighting in the main factory building. The skylights made an improvement to the visual aspect of the building and considerably improved the amount of natural light within the building reducing the requirement for artificial light and energy usage.
2. Training of all staff in the use of spill kits;
3. Implementation of a procedure for the removal of liquid waste; and
4. A high standard of housekeeping in storage areas.



*The use of skylights reduces the need for artificial lighting and demand for electricity*



*An example of a high standard of housekeeping maintained in the storage shed.*

Benbow Environmental can set up regular auditing programs to suit your needs. We service clients with a number of sites located throughout Australia. Contact our office for further information on Environmental Compliance Audits.