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# THE HEALTH ENGINEER



THE JOURNAL OF  
N.Z. INSTITUTE OF HEALTH ESTATE AND  
ENGINEERING MANAGEMENT



**THE HEALTH ENGINEER**

The Journal of the NZ Institute  
Of  
Health Estate and Engineering Management

Volume 3 No 6 Winter 2005

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Inner back cover – 2004 Conference and SNI Regional Meeting photographs.

Cover Photo - St. Gerrard’s Monastery overlooking Oriental Bay, Wellington, city for this years conference.

The health and viability of any organization depends on good communications. Our objective is to produce a good quality health engineering magazine. The magazine should inform readers, it should provide a forum for discussion, encourage interest in all aspects of the technical side of health facility management in its widest sense.

## Presidents Column

### July 2005.

The new financial year and a new budget lifts the spirits of our facilities departments as those favourite projects become viable again.

Regional meetings have been held in the South Island and in the Upper and Lower North Island.

We can look forward now to the next big Institute events.

And our 60<sup>th</sup> Anniversary National Conference is at the Duxton Hotel in Wellington on **10<sup>th</sup> / 11<sup>th</sup> November 2005**. The theme is: "For Better for Worse In Sickness and in Health ". It seemed like a good one for a Diamond Anniversary.

The organization of our National Conference is coming together. We have our major sponsors lined up and the trade sponsors and speakers list is looking good.

Call for Members Papers: I know amongst our members we have heaps of knowledge to share so I challenge you to present a paper this year. I want to encourage NZIHEEM members to present papers at the conference. We are keeping two speakers slots free in anticipation of your paper.

Make this conference a true institute conference where we share our experience and enjoy the fellowship of our colleagues. Book your flights now!

We are looking for Nominations for New Members, Nominations for the Executive and Nominations for BOC Hospital Engineer / Biomed of the Year and we are looking for Papers and Sponsors for Conference. Look out for our call for Nominations.

The Institute of Hospital Engineering Australia is holding it's 56<sup>th</sup> National Conference at the Esplanade Hotel in Freemantle Western Australia on 18<sup>th</sup> to 22<sup>th</sup> October 2005. The theme is "Managing your triple bottom line: Economic, Social and Environmental".

At least two of our members , **Paul McCartney** ANZEX delegate for 2005 , **Dave**

**Watson** , BOC Engineer of the Year 2004, will be attending. Look on the web page for more information.

We will again be hosting an Australian ANZEX delegate. This time it is **Jim Cozens**, Manager - Facilities Management and Planning, Northeast Health Wangaratta. He will be presenting a paper at our Conference on Hospital Engineering in Developing Countries based on his experiences in several countries in Central and South East Asia and the Middle East.

Jims' hospital interests for his trip are energy management, maintenance management systems and the role of government in the regulation and administration of health services in New Zealand.

We will be organizing Jim's itinerary soon so please volunteer to make his tour of our country and his visits to our hospitals as enjoyable and as interesting as you can. We have a reputation of putting on a good show for our Australian ANZEX friends. If you want to contact Jim before hand please email me and I will put you in touch.

Many of you will have signed up in April for a new 3 year electricity supply contract at a substantially higher hedge price. I note also that many of you have elected to only have a 50% Volume Hedge. This means that you will all be watching the spot price very intensely over the next few years. I hope our bet against the spot market pays off. The lake levels are dropping again as I write this. Good luck!

The network charges for electricity delivery are very steep. Particularly the OPD ( On Peak Demand ) period which is 17:30 to 21:00 winter week days. We have been experimenting with a Pager Alarm to see if we can respond with some short time load shedding between 17:30 and 18:00. We had some success last season and saved \$47,000pa on demand charges. But sustaining this is a real challenge.

Tony McKee , Hawkes Bay DHB, has been to Germany with Aquatherm to visit the ISH Trade Fare and Aquatherm factory and hospitals in England. He will be reporting to us at Conference.

## The Health Engineer

At Capital & Coast DHB we are trying to get ourselves into an Estate Management mode rather than Maintenance and Compliance Mode. This is partially in response to the Ministry of Health's Asset Management Planning initiative but also in response to high numbers of departmental relocations as "decanting" occurs to make way for the New Regional Hospital Project.

Each building is about to have a thorough "Building Condition Report" prepared. This includes the fabric, the mechanical and electrical systems and fit out condition. This is relatively easy to inspect and grade using a 5 step system. The point where we start to become Estate Managers is the inclusion of an Asset Performance section where we survey the users of each space in the building to see how well the space supports what the users are trying to achieve. We have used a technique of QQI;s Quick Quality Interviews to try to find the significant problem areas. A prototype condition report is being prepared to measure the value of such an approach.

We have reverted to a paper based system of building compliance information in response to the new Building Act. Our philosophy has been to make use of only our electronic tools to provide compliance evidence. With 105 buildings this makes a lot of sense. However the new act requires such a mix of evidence of compliance we have reverted to a ring binder for each building with a standard set of dividers so that an auditor can check compliance evidence simply by flicking through a single ring binder for each building. 105 Ring binders take up a lot of shelf space and filling effort. The exercise has provided an opportunity for a thorough internal audit too. In due course we will be looking for ways to capture the evidence electronically and hopefully abandon the paper again! We will be trying to influence Territorial Authorities to accept alternative solutions to the "evidence" issue.

Emergency water storage continues to be an issue in Wellington. The post earthquake water storage issue for the whole city is so serious that the Wellington Regional Council and the City Council and the DHB are discussing building a new large reservoir capable of storing 10 days of hospital consumption at a cost of more than \$2.5 million to the DHB.

Winter 2005

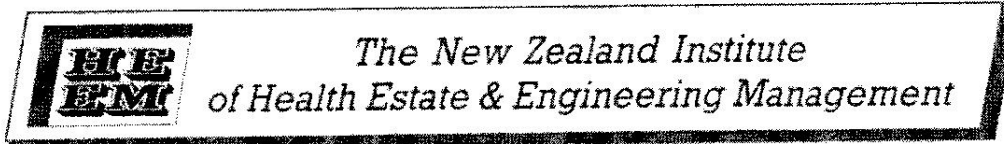
We have been discussing CAD as-built drawing conventions with our consultants with a view to imposing standardized drawing conventions that all our consultants and contractors must use. Our standard format document specification has been slow gaining acceptance and even slower getting compliance. But recently we have found British Standards that are almost identical to ours. The convergence of local and international standards makes acceptance of standardized CAD documents much easier to sell. It also means that compliant templates and tools are becoming available.

The MRSA outbreak in our Neonatal Unit focused a lot of attention on our engineered infection controls. The internal processes of hand-washing and bottle warming were found to have conflicting temperature requirements at the local hand basins, resulting in avoidable travel and equipment handling at central locations. By modifying both the taps and the temperatures we now have both process done locally, reducing risks of spreading any contamination in this densely populated department.

Telecommunications and Data Infrastructure are rapidly converging. We have read recently about Canterbury DHB's major telecommunications contract let to Telecom NZ with clever integration of Cellphones and PABX systems for major savings. The concept of VoIP ( Voice over Internet Protocol ) where internet phones use the Cat.5 data cables and data switches and routers across the internal network and outside it for inter site communications, completely bypassing the traditional PABX, is rapidly advancing. Making decisions on how to best take advantage of new technology is challenging. Incremental convergence or cold turkey? Every DHB will be presented with this challenge in the next few months if they have not already started work on it.

The executive is proposing a rule change for the AGM in November 2005. This relates to the membership of the Institute executive to ensure our Biomedical members are properly represented.

Cheers,  
Andrew Paterson  
President



www.nziheem.org.nz



For Better for Worse  
in  
Sickness and in Health



**"Sixty years together, what will the future bring?  
Developments in technology, technique and treatment"**

10<sup>th</sup> & 11<sup>th</sup> November 2005

Venue:- Duxton Hotel, Wakefield Street Wellington

**Of Interest to Those in the Health Sector including:**

- |                      |                         |                         |
|----------------------|-------------------------|-------------------------|
| Facilities Managers  | Maintenance Managers    | Maintenance Contractors |
| Biomedical Engineers | Services Engineers      | Property Managers       |
|                      | Engineering Consultants |                         |

**The Conference:**

This year's Conference theme is: **"Sixty years together, what will the future bring? Developments in technology, technique and treatment"**

There have been many changes to the way health care, technology and engineering is delivered. The aim of the conference is to share some of these changes with our colleagues and stimulate our thinking on current and future best practice engineering and management.

**Biomedical Seminar**

In conjunction with the conference Philips Medical are holding a workshop for Biomedical Technicians on Wednesday 9<sup>th</sup> *Biomedical Seminar Info:* Tony Blackler Phone 03 364 0218 (bus) Fax 03 364 0436 (bus)

**Partners Programme**

An informal program is being arranged for Partners, giving an opportunity to shop, sightsee and generally view our city and its surroundings in a relaxed manner.

**Trade Night**

A feature of the Conference is the Trade Display on Thursday evening giving delegates the opportunity to view products and services of interest to the Health Industry. Food and refreshments will be served during the evening.

***We sincerely wish that delegates from out of town would spend the weekend in Wellington to enjoy the sights and sounds of our vibrant capital city.***

**Accommodation**

The **Duxton Hotel** is ideally located in central Wellington with excellent Conference facilities.

*The Duxton Hotel is offering delegates a room rate of \$190 per night.*

*For Hotel reservations, please contact:*

Phone: 04 473 3900 Fax: 04 473 3929

Email: [office@wellington.duxton.co.nz](mailto:office@wellington.duxton.co.nz) [www.duxton.com.au/well\\_location.htm](http://www.duxton.com.au/well_location.htm)

Rooms have also been reserved at the nearby **Accor Hotel Ibis** at a room rate of \$133 per night

*For Hotel reservations, please contact:*

Phone: 04 496 1880 Fax: 04 496 1881

Email: [H3049-RE01@accor-hotels.com](mailto:H3049-RE01@accor-hotels.com) [www.wellingtonnz.com/Accommodation/lbis](http://www.wellingtonnz.com/Accommodation/lbis)

**Conference Programme****Thursday 10<sup>th</sup> November Sample program only – subject to change**

0800 – 0900	Registration
0900 – 0910	Official Opening – Andrew Paterson President of NZIHEEM.
0910 – 0940	Keynote Speaker – Bob Henare Chairman of CCDHB –Engineers can be leaders in governance.
0940 – 1020	Major Sponsor IBM – David Heald – New Technology for a new era “IP networking”.
1020 – 1040	<i>Morning Tea</i>
1040 – 1120	Clinical Speaker – Judith Brougham – Advances in diagnostic laboratory techniques.
1120 – 1200	ANZEX Delegate Jim Cozens NE Wangaratta
1200 – 1230	TBA
1230 – 1330	<i>Lunch</i>
1330 – 1530	Site Visit
1600 – 1700	Annual General Meeting

1800 – 2100 **Trades Night** – Displays of products and innovations in the Duxton Ballroom

**Friday 11<sup>th</sup> November Sample program only – subject to change**

<b>Facilities Group</b>		<b>Biomed Group</b>
0900 – 0945	TBA	Major Sponsor GE Medical – New Developments in diagnostic medical equipment
0945 – 1030	Members Paper Tony McKee – Report on Fusiotherm sponsored trip.	Major Sponsor Alaris Medical – New Technical Developments in interventional medical equipment
1030 – 1100	<i>Morning Tea</i>	
1100 – 1145	Major Sponsor Meridian Solutions Developments in the NZ energy market	TBA
1145 – 1230	Members Question Time	Members Question Time
1230 – 1330	<i>Lunch</i>	
1330 – 1415	TBA	
1415 – 1500	New Zealand ANZEX Delegates paper - Paul McCartney	
1500 – 1515	<i>Afternoon Tea</i>	
1515 – 1600	Emergency Management – Greg Philips and Katrina Brill	
1600 - 1645	Paul Vickers - mbar	
1830 - 2130	Cocktail Hour and Annual Dinner, BOC Engineer of the Year Award	

**Contact Details**

*Please return registration forms by 14th October to:-*

NZIHEEM Conference 2005, C/o Andrew Paterson, Manager Technical Services, Capital Coast Health

PO Box 7902 Wellington South. Phone 04 385 5493 or 027 4468 610 Email – [andrew.paterson@ccdhb.org.nz](mailto:andrew.paterson@ccdhb.org.nz)



**NZIHEEM / BOC Biomed / Engineer of the Year Award**

Members are invited to present submissions for the award of NZIHEEM/BOC Biomed/Engineer of the Year. The submissions may be personal or submitted on behalf of another member.

The Institute is looking for members who have "made a difference" in their organisation over the last year or more. The proposed recipient of the award does not have to have been the manager or the leader of the team or project and a significant supporting role may be acknowledged by this award.

Potential subjects for submissions may include:

- A successful hospital construction project.
- Quality systems improvements.
- Innovative engineering projects.
- Biomedical innovation.
- Biomedical quality systems enhancements.
- Increased productivity.
- Management systems implementations.
- Energy saving systems.
- Safety and Compliance systems enhancements.
- One or many projects may be the subject of the submission.

Criteria addressed in the submission should include:

- Effectiveness of the individual.
- Making a difference to a team.
- Making a difference to the organisation.
- Persistence and diligence over a longer period.

Submissions should include but not be limited to:

- A description of the nominee's role within their organisation.
- Some history of their activities.
- Description of the activity or project the nominee has been involved in.
- The significance of this work and its impact on the organisation
- Any setbacks that were overcome with a description of how.
- Has this work been acknowledged anywhere else.
- The submission should be at least 500 words.

**Criteria for judging purposes**

The individual shall have exhibited special qualities within the field of their work and the organisation that employs them.

This should include such things as;

- Leadership
- Technical excellence
- Participated in an activity that has benefited the organisation they are employed by
- Acknowledgement by their peers
- Initiative

Proposed individuals will be interviewed about their submissions and at least one of their peers will be asked about it.

**The Award**

The recipient of the award receives travel and accommodation to the value of \$2,000 NZD to attend a relevant Healthcare conference as approved by the committee. A framed certificate will also be provided.

There will also be two highly commended runners up who will each receive a framed certificate.

**Conditions**

The proposed individual must be a current financial member of NZIHEEM. (Business Associate members are not eligible)

The individual must be currently working full time in a technical role providing services.

The winner of the award will be required to report back to the membership of NZIHEEM regarding their informational and practical gains from attendance of the Healthcare conference. This could include such things as new methods and concepts or projects which may be of value to other members and their organisations. While not essential, the winner of the award should consider presenting their report as a paper at the next available NZIHEEM Annual Conference.

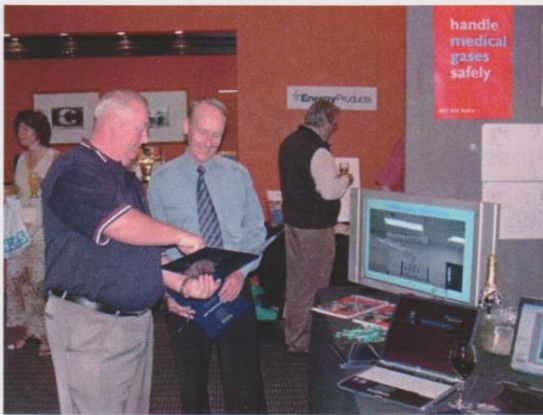
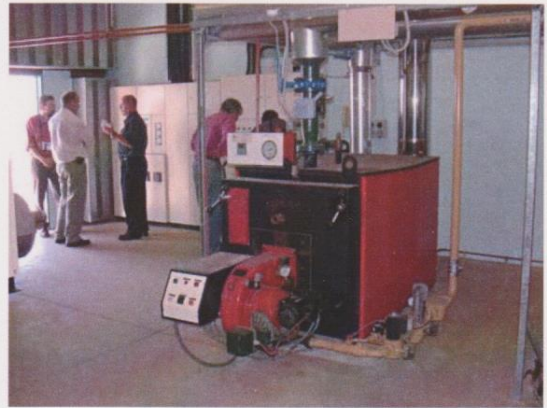
For reasons of fairness a previous award winner is unlikely to receive the award again. Highly commended individuals are encouraged to make further submissions.

Submissions Close: Mid October each year and should be submitted to:-

Tracey Norton  
BOC Ltd.  
27 – 33 Seaview Road  
Lower Hutt  
Wellington

Award Announced:- At NZIHEEM Conference Dinner.

Selection Panel:- BOC and NZIHEEM Executive members.



Photos – Left column Highlights from last years Conference.

Top – Technical visit to Inovation Park.

Next – Typical Trades night shot.

Then – A happy table at the Annual Dinner.

Bottom – Even the Executive have to eat.

(Andrew, Bill & Kevin).

Right column – Hawera Hospital plant room and main entrance, venue for the South North Island Regional meeting.