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THE HEALTH ENGINEER

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

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

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Cover Photo - The Cathedral of the Holy Trinity, Auckland, one of the many interesting buildings to be seen at the host city for our next 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.

WELLINGTON CONFERENCE 2005 – MEMOIRS OF A DIAMOND

By Colin Gauld NZIHEEM Vice-President

The 2005 NZIHEEM conference was held in the "Absolutely Positively" capital city of Wellington. The Duxton Hotel venue was appropriate for our important "diamond" event. A lot of work had obviously gone into the organising by Andrew Paterson, NZIHEEM President from Capital Coast Health and his team. I would like to add a special thanks to Richard Whitehead.

The conference was opened by Andrew with the themes of *"Sixty years together, what will the future bring?"* and, *"Developments in technology, technique and treatment"*. We were honored to have as the Keynote Speaker, Mr "Bob" Henare, Chairman of Capital Coast Health District Health Board and also a qualified engineer. What better person to start the proceedings with *"Engineers can be leaders in governance"*. References to Mr Henare's paper by other speakers reflected the appreciation. The importance of engineers getting involved into DHB strategy through the District Annual Plan and the District Strategic Plan was emphasised by Mr Henare. Further, unawareness of infrastructure issues was often the case amongst people in governance.

The morning session then kicked off proper with one of the major sponsors, IBM. Mr David Heald spoke of new technology involving IP networking, and, IBM's priorities in healthcare. Asset tracking using RFID proved very interesting.

Continuing the morning session, Mr Jim Cozens from Wangaratta, Victoria, the 2005 ANZEX delegate. My family was fortunate to host Jim and his wife as they made their way back up the North Island to Auckland after the conference. Jim's healthcare experience is vast which came over in his paper theme of *"Developing countries, colleagues support"*.

The morning session concluded with Mr John Perry of Vectek that dealt with something all hospital engineers are aware of - UPS power supplies. However, the company also dealt with many power quality solutions. We were warned of the "organic" growth of small UPS's usually because of a lack of a plan. I can certainly concur with this.

Site visits traditionally was the order of the first day afternoon and this was no exception. Choices were: Wastewater Treatment Plant at Moa point; and, the water and atmospherics institute (NIWA). The former was my pick and we were rewarded by an interesting process explanation in the classroom followed by a walk around the plant showing the filtration, primary settlement, biological treatment, clarifiers, through to UV treatment and discharge via a 1.8 km pipeline into the Cook Strait. It was particularly interesting for me as I visited the construction of the pipeline and the clever method of installing it in the strait. Thanks go to United Water whom ran the place. Reports from members that attended the NIWA site were also very positive.

An eventful, diverse and pleasant Trades Night was experienced in the evening to punctuate Day #1. NZIHEEM appreciate the work involved for Trades Night and would like to thank the companies involved. It is appropriate at this stage to thank the major sponsors: IBM, GE Healthcare, and EFI Energy for Industry and Cardinal Health.

Day two commenced with splitting into Facilities and Biomedical streams. As an engineer, I sat through the facilities session and several interesting and entertaining speakers. First for the day were Mr Henry Biggelaar and Stephen Edgecombe from Spirax Sarco. Steam is always of interest to hospital engineers many of whom had "steam careers". There were many references to Standards both here, Australia and UK.

Next was a member's paper by newly elected executive member, Mr Tony McKee. Tony reported on his trip to Germany sponsored by Fusiotherm. I think the sheer enormity of the trade fair in Frankfurt made us all feel a little "small". We also learnt that it is important to have the correct dress code!

Major sponsor EFI with Mr Andrew Cooper talking about development in the NZ energy market, rounded off the morning and left us with some thought provoking comments regarding electrical and gas prices increasing, and generation trend not matching demand.

Just prior to lunch, the facilities stream continued with forum type members question time based on some topical hospital subjects such as HZNO and compliance testing. This was tried at the Hamilton conference and found to be quite informative. After all, when do we all get together to be able to talk to each other in such a forum. I think it is most useful and the more that take part the better.

Day 2 afternoon preceded with something that won't go away – Hospital Emergency Management. Greg Philips of Capital Coast Health provided a sobering session for members.

The Biomedical stream for day 2 listened to two major sponsors: GE Medical, Dr Vartuli; and, Cardinal Health, Mr Alan McNaughton. Their papers were: *"Entropy Adequacy of Anaesthesia – Awareness monitoring"*, and, *"New Technical Developments in Interventional Medical Equipment"*, respectively. A members' paper followed from Mr Mathew Jones & Tim Staker entitled *"Biomedical Benchmarking"*. To finish off the morning session, Mr D Nicholson, MoH, spoke about *"Joint Agency with Medsafe/TGA"*. The afternoon saw members listen to *"Bowie Dick Technology for Steriliser Monitoring"*, and, *"Human Patient Simulator"* by Dr Kirk and Mr B Robinson respectively. Let me apologise if there are any errors in this paragraph as I did not attend the Biomedical stream.

The Conference Ladies showing off their diamond tiaras celebrating the diamond anniversary of the Conference

Both streams regrouped to hear our own 2005 ANZEX Delegate, Mr Paul McCartney, whom provided a report on his trip to the "other side" of Australia. Some interesting operation modes for chilled water systems gave food for thought for some of us in warmer climes.

The final speaker appropriately came from Wellington's Capital & Coast Health. Angela Brounts gave us an entertaining presentation about life in a large clinical testing and diagnostics lab. The men were even given some free health advice!

Mr Andrew Patterson, NZIHEEM President, concluded with a summary and closing. The Annual Dinner followed and a "sparkling diamond" entrance en mass by the ladies to mark the occasion proved a sight to behold. Later in the evening following an excellent meal, the BOC Engineer/Biomed of the Year award was presented to Mr Richard Whitehead of Wellington's Capital & Coast Health. As Services Engineer, Richard has been heavily involved with many challenging projects and deserves this accolade which is becoming a feature in the annual conferences.

"The Girls"

The Diamond Conference Partner's Report

By Judie Flower

Wednesday 9th November

I awoke to a beautiful Wellington morning, had breakfast and then met up with the other 'girls' at one of the conference rooms at the Duxton Hotel.

Allison, Lyn, Monica, the 'new girl', Beverley (from Australia) and I decided to go walkabout in the city. We walked along Oriental Bay looking at fantastic views of the harbour and somewhere to stop for a coffee. Nothing was open before 10 o'clock but on our way back we noticed doors opening for business so we stopped for a coffee.

We headed into the CBD, walked through the grounds of Parliament buildings, and other places of interest until it was time for lunch. By the time we got back to our hotels Lyn, who had been wearing a pedometer, let us know we had walked 11kms.

Wednesday evening involved an enjoyable dinner at the Duxton along with the members of the executive and their partners.

Thursday 10th November

We girls met up at the Duxton after the delegates had been given their conference packages, and decided to take a ride on the Cable Car and visit the Botanical Gardens. It was another lovely day though rather windy. The Botanical Gardens were displaying roses and there must have been hundreds of blooms to admire. We had lunch then wandered down Tinakori Road and window shopped all the small boutique shops there. We walked back through the park and down through the Bowen Cemetery, and that's where we were subjected to Wellington's famous WIND!! It was so strong that we were almost blown over.

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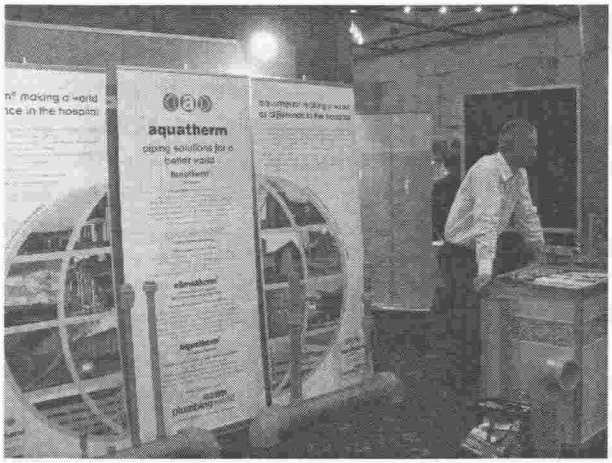
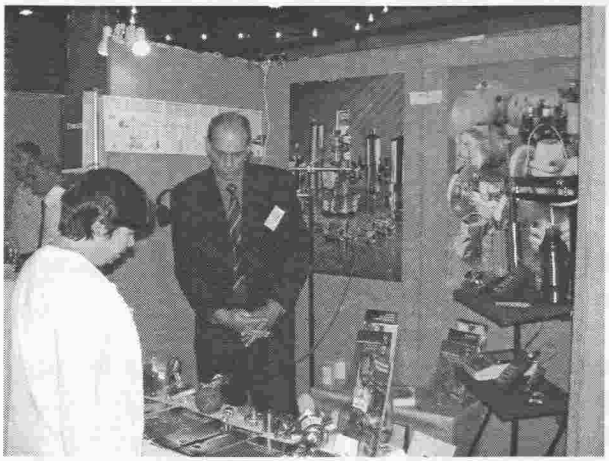


The Aquatherm Stand

Richard Whitehead's framed certificate.



The Spirax – Sarco Stand

The BOC Engineer of the Year – Richard Whitehead.

The Australian ANZEX delegate, Jim Cozens and wife Bev.

WEST AUSTRALIA

ANZEX delegate Paul McCartney's report on his and partner Pauline's visit to Perth, the Australian Conference and the hospitals of the West Australian hinterland.

I was lucky enough to be chosen as the New Zealand delegate to attend the 56th national conference of the Institute of Hospital and Engineering, Australia and to spend some time visiting hospitals in Western Australia. The trip presented a fantastic opportunity to present a paper at the Australian conference and to further my knowledge in facilities management. Pauline was also excited about the variety of shopping that she would encounter on the trip.

The site visits ranged from small regional hospitals to tertiary hospitals in the centre of Perth. They were arranged in consultation with members of the Western Australian organising committee and as such were tailed to my areas of interest. Arriving in Perth after eight and a half hours of sitting on planes it was great to see a familiar face in the form of John Dransfield, current president of the Australian Institute. John and Lou hosted us for our first night. In the morning we were picked up by Len Mumme and travelled two hours south of Perth to Narrogin a small town with an urban population of 5,000. Len acted as tour guide to show me around his hospital. The hospital provides an acute service to Narrogin and its surrounding districts. It consists of a 24-hour emergency department, a six bed obstetric unit, a four bed paediatric unit, a 30 bed acute surgical, medical and psychiatric unit (also includes rehabilitation patients), a two bed 'rooming in' (psychiatric) unit and a nine bed day surgery unit. The operating theatre is active for nine days per fortnight, with an on-call after-hours service.

Len and Fay hosted us for our second night in Western Australia and after enjoying their hospitality we travelled back to Perth via Northam hospital, which like Narrogin, is a regional hospital within the Wheatbelt region providing a similar range of services. Northam has optimised their chiller plant by running it at night to cool down their 160,000 litre water storage tank. This reserve is then used during the day for their air conditioning load so that they can minimise their peak demand consumption. Their BMS is directly linked to the Met service and uses data collected to schedule the temperature that the chilled water needs to be bought down to each night, for the following day.

Len kindly delivered us to Roy and Carol Ann Aitken where we stayed for the next five nights. We were made to feel at home and had a great time. The next visit was to King Edward Memorial Hospital a tertiary obstetrics and gynaecology hospital, it is the major maternity hospital for the Perth area with all difficult births and complex cases being referred here. It is a 160 bed facility with a further 100 spaces for cots and bassinettes, and comprises approximately 70,000sqm on one site. The original building built in 1896 which was used as a home for wayward boys. It was converted into the King Edward Memorial Hospital in 1916 and now houses the medical library.

I visited Princess Margaret Hospital, a tertiary hospital which is the only specialist children's hospital in Western Australia. The hospital comprises approximately 110,000sqm with 260 beds and a further 30 cot spaces. They have a large indoor area set aside for entertainment including an on site radio station and a stage area that they use from time to time. The hospital was undergoing some refurbishment of ward areas and had recently completed an upgrade to the emergency department.

The first weekend of our visit Roy and Carol Ann chauffeured us around Perth, taking in the highlights of the area we were treated to beautiful scenery, good food and great company. The next site visit on the list was Sir Charles Gairdner Hospital a fully accredited teaching hospital located on a 28 hectare medical campus adjacent to King's Park in Nedlands, four kilometres from the central business district of Perth. Charlie's as they call it is on the Queen Elisabeth II site which also accommodates over 30 organisations with the major ones being - Sir Charles Gairdner Hospital, the University of Western Australia (Faculty of Medicine and Dentistry), the Western Australian Centre for Pathology

and Medical Research (PathWest), the Lions Eye Institute, the Western Australian Institute for Medical Research, and the Cystic Fibrosis WA Independent Living Centre for Neurological Support. Each year the hospital treats approximately 63,000 inpatients, 40,000 emergency presentations and 300,000 outpatients. There are currently 606 beds on site, 88 of which are day patient beds and the hospital employs approximately 2,740 full-time equivalent staff. The 26 hospital buildings have a gross floor area of 222,000m^2 with G block having the largest floor space of any building in Perth. In addition to the other tenant's total personnel on site at any one time would be close to 5,000.

My next site visit was to Graylands which consists of the State's largest and only public stand-alone psychiatric teaching hospital and a number of special care services. The hospital provides acute care treatment and rehabilitation to adults, old age and forensic patients. Day hospital facilities and community support services are also provided to the older adults.

The special care services consist of a 24 hour seven days a week community emergency service, court liaison and community support to forensic patients, creative and vocational training, specialist Aboriginal psychiatric services, and a neurosciences unit. The special services are available to in-patients as well as patients living in the community.
The service includes a state-wide library, clinical research, the co-ordination of postgraduate education and training for psychiatrists and continued education of other health professionals.

Relocating to the Esplanade Hotel in Fremantle for the conference, the theme for which was managing your triple bottom line, saw 90 delegates in attendance from all parts of Australia including consultants and sponsors. 22 papers were presented with a wide variety of topics and all to a high standard. The conference was well organised and went off without a hitch thanks to John Dransfield and his organising committee.
Friday night at the annual dinner was very much a black tie affair and 140 were booked for dinner. An excellent band played through the night and a great time was had by all. Saturday saw another organised event with a cruise up the Swan River. 55 of us caught a bus from Fremantle into Perth and departed from the wharf to cruise up the Swan River with wine tasting and cheese and crackers on the way. We were later transported by bus to a local restaurant for more wine tasting and lunch. Back on the bus we headed to a chocolate factory and then on to another winery for dessert. It was then back on the boat and we cruised back to the wharf and returned to the Esplande Hotel in Fremantle again. It was a great day out and a good way to conclude the conference events.

Our final site visit was to Albany in the Great Southern Region approximately five hours drive south of Perth. The region is home to approximately 55,000 people, 30,000 live in and around Albany. We were hosted by Ken and Ann Parker and what a picturesque spot they have overlooking the harbour across the bay from Albany. Albany is a regional hospital with 130 beds, provides a full range of secondary services and has two theatres located on site. It services Katanning which has 70 beds with general surgery and is 2.15 hours away, Mt Barker 45 beds 40 minutes north providing general surgery and Denmark 20 beds 40 minutes west with an A&E and birthing unit. Albany is an older hospital and while well maintained suffers from dated infrastructure.

The entire visit was well organised and provided an opportunity that I would not otherwise have been exposed to. The experience gained in writing and presenting a paper at the Australian conference, attending the conference itself and the knowledge gained from the site visits are all invaluable. The lasting impression of our visit has to be the people. Pauline and I were made to feel very welcome from the day we arrived until we departed. A big thank you to all those who home hosted us and to those of you that took time out of your busy days to show me around the hospitals that I visited. I met many great people at the conference and renewed friendships with delegates that had travelled to New Zealand previously. The hospitality shown to us by all that we met cemented the visit in our minds as a truly memorable occasion. Finally thank you to the Australian and New Zealand Institutes for promoting and sponsoring an excellent exchange programme.

United Water Moa Point Sewage Treatment Plant

It was mostly Facilities Engineers who went to the Moa Point Sewage Treatment Plant near Wellington Airport and assembled in the plant's lecture room where we were introduced to the two technicians who would show us through the plant. The inside of the lecture room had numerous charts and posters on the walls as well as a model of the plant to interest everyone. A shortened version of the information supplied by United Water forms the basis for this article.

GENERAL DESCRIPTION & PLANT LAYOUT

Moa Point Treatment Plant, Pumping Station and Outfall is operated by United Water International Ltd on behalf of Wellington City Council under a 21 year operating agreement.

The works forms part of the Clearwater Wellington Project which also includes Western Treatment Plant and Careys Gully Sludge Treatment Plant.

The Plant receives raw sewage, primarily of a 'domestic' nature, from the City and urban areas of Wellington, excluding Karori. The only major non-domestic sources are from an abattoir, and the return centrate flows from the Careys Gully Sludge Dewatering Plant.

The Plant is designed to accept a peak wet weather flow of 4000 l/s, with a peak flow of 3000 l/s going to biological treatment. The average daily design load for BOD and suspended solids is 19,700 kg/d and 19,300 kg/d respectively.

Outputs produced by the Plant are treated effluent, screened/de-gritted storm sewage, mixed primary and surplus activated sludge, screenings and grit, together with treated air from the odour control scrubber systems.

The treated effluent is maintained within strict levels of consented quality before being discharged into the Cook Strait via an off shore outfall. During extreme storm events flows in excess of 3000 l/s bypass the primary, biological and UV treatment stages, with screened and de-gritted storm sewage passing to the outfall to discharge in admixture with the fully treated effluent.

Raw mixed sludge from the Plant is pumped via one of two sludge pipelines to Careys Gully Sludge Dewatering Plant

Washed/dewatered screenings and washed grit are deposited in skips for transport by Contractors for final disposal at the Careys Gully Landfill site.

The treatment provided at the Plant is a multi-stage, continuous process with the processes and flows being constantly monitored by comprehensive instrumentation and a SCADA system.

Plant performance and treated effluent quality are monitored by comprehensive sampling and analysis schedules undertaken using agreed procedures.

The treatment processes include:-

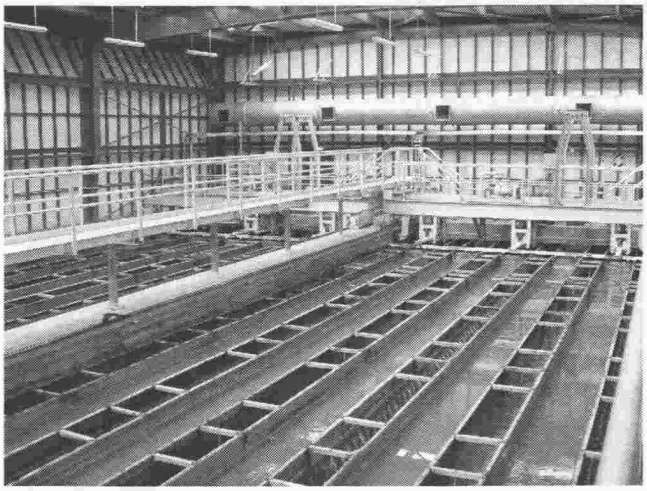
Inlet Pumping
Sewage flow is received by gravity and a series of in-line pumping stations into the Moa
Point Inlet Pumping Station, from which it is pumped through twin rising mains to the Inlet Works of the Treatment Plant.

Inlet Works
Preliminary treatment of the raw sewage is provided to remove screenable material and grit, and to separate excess storm flows prior to primary and secondary treatment

Primary Treatment
Following preliminary treatment flow enters the primary treatment flow splitter channel which restricts flow receiving full treatment to 3000 l/s. Primary treatment is then provided by Larnella tanks to remove settleable solids prior to biological treatment, this also reducing the BOD load. Settled sludge is removed from the tanks by the primary sludge pumps.

Secondary Treatment
Two stage secondary treatment is provided, both a fixed growth biological stage (Kaldnes), and a

conventional suspended growth (activated sludge) stage.

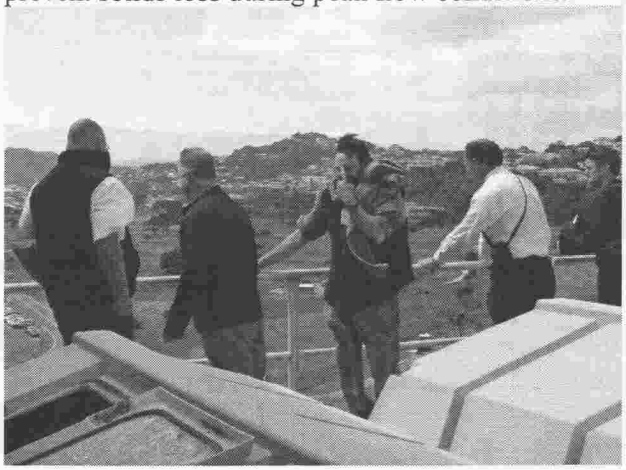


Primary sedimentation tanks

Moving Bed Bioreactors (MBBR's)
The MBBR's provide the first stage of biological treatment for the settled sewage. The MBBR's are filled 30 -50% with 'Kaldnes' growth media which supports biomass which primarily removes soluble BOD, and develops solids that can be flocculated.

Re-aeration and Solids Contact Tanks
Process liquor from the MBBWs enters the activated sludge system where further biological treatment is provided. The activated sludge system is provided with two zones, these being a re-aeration zone and a solids contact zone.

The re-aeration zones are provided to maintain aerobic sludge conditions prior to uptake of the soluble BOD in the solids contact zones, and to prevent solids loss during peak flow conditions.



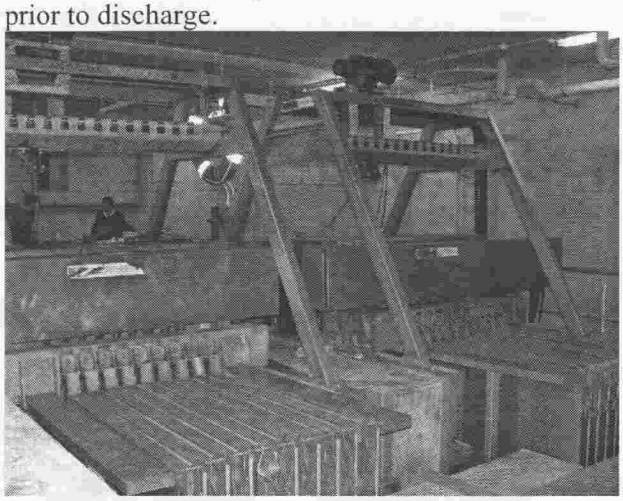
A windy view of Miramar Golf Course beside the biological process tanks. At least the wind was fresh and 'smelless'.

The solids contact zones provide suitable conditions for mixing the MBBR liquor with the recirculated activated sludge from the secondary clarifiers. This enhances bioflocculation of the finely divided solids and breaks down particulate biodegradable BOD.

Mixed liquors from the solids contact tanks pass to secondary clarifiers for settlement with settled sludge being continuously returned to the reaeration tanks by RAS pumps.

Surplus activated sludge not required to maintain MLSS levels in the reaeration and solids contact tanks is 'wasted' to the sludge storage tanks.

Disinfection
Treated effluent from the clarifiers flows into the UV channels where it is subject to high intensity UV radiation to disinfect the effluent by substantially reducing the level of faecal coliforms prior to discharge.



The U.V. disinfection units disinfect the effluent before discharge into Cook Strait

Sludge Removal
Primary and waste activated sludge are discharged to continuously mixed sludge storage tanks prior to pumping via one of two 180mm diameter, 8800m long sludge pipelines to Careys Gully Sludge Dewatering Plant for treatment. (NB the sections through Mt. Albert Tunnel are only 150mm diameter).

Power Generation
Separate diesel powered emergency generators are provided at both the Inlet Pumping Station and the Treatment Plant. These operate automatically in the event of mains power failure and provide

sufficient capacity to operate essential plant to treat a maximum of 2000 lls flow.

Odour Control

To meet stringent restrictions on odours, the plant is entirely covered. At both the Wet Pumping Station and Treatment Plant negative pressure ventilation systems direct extracted air to three stage chemical scrubber units, one at each site, utilising sulphuric acid, sodium hypochlorite and sodium hydroxide treatment prior to discharge to atmosphere.

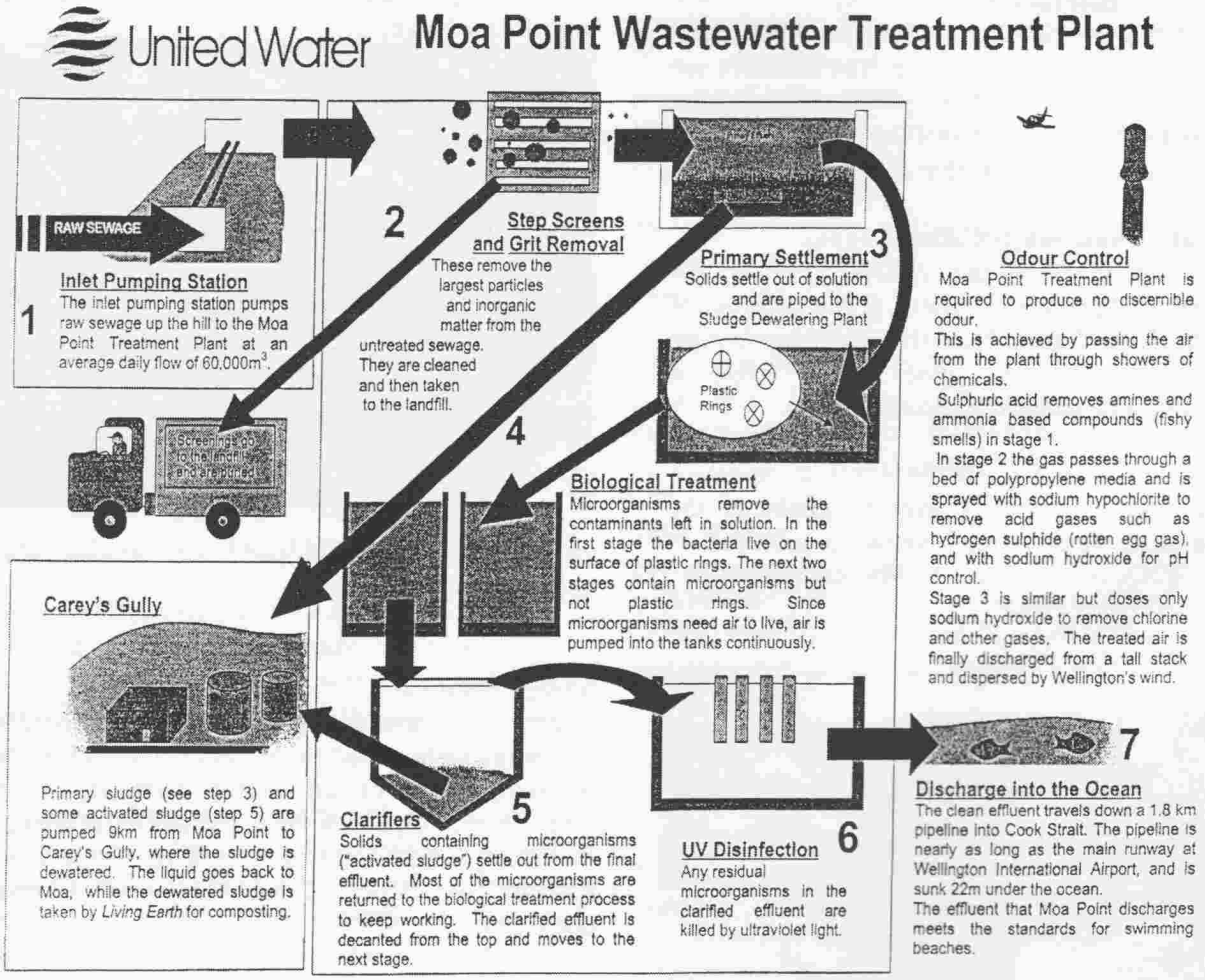
OPERATING SPECIFICATION

Flow:-

Average Dry Weather Flow:	8221/s
Maximum Flow (Pre-treatment)	40001/s
Maximum Flow (Full treatment)	30001/s

Effluent Consent Standard:

SS (90% ile):	68 rng/1
SS Geometric Mean:	30 mg/l
BODs (90% ile):	45 mg/1
BOD5 Geometric Mean:	20 mg/l
F Coliform (90% ile):	950 (fc/ I00ml)
F Coliform. Geometric Mean:	200 (fc/ 100ml)



Some thoughts and comments after attendance at NZIHEEM Conference 2005

By

Delegate : **Andries van den Berg**
Clinical Engineering Department,
Auckland District Health Board.

The Conference:

This year's Conference theme was :-
"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 was to share some of these changes with colleagues in the Medical sector and stimulate their thinking on current and future best practice Facilities and Clinical Engineering management.
In conjunction with the conference PHILIPS held a workshop for **Biomedical Technicians** on Wednesday 9th.

Trade Night

A feature of the Conference is the Trade Display on the Thursday evening giving delegates the opportunity to view products and services of interest to the Health Industry.
This year we were presented with 30 Trade Stands.

Technical Visit : the Biomedical interest group were given the opportunity of a visit including four presentations at the NIWA on Greta Point. It was of great value to realise that even a health service or DHB is dependant upon much of their research to plot many health and disaster trends or apply models to socioeconomic outcomes in strategic planning of services .
There were four talks presented on: weather forecasting / seismic action, oceanographic / atmospheric gas analysis / water and ocean hygiene and flow trends.

Partners Programme

An informal program was arranged for Partners, giving an opportunity to shop, sightsee and generally view Wellington city and its surroundings in a relaxed manner. This has been the highlight of the year for my wife. With both of us being immigrants, my wife enjoys being able to view the country in the company of other like minded women having Engineers as partners.
This is a feature of the NZIHEEM conventions and practise of the institution I truly hope they never think of doing away with. My wife and I have truly felt welcomed into a "FAMILY GROUP"of friends that share concerns and career goals / hopes / frustrations, that we have experienced during our lifelong partnership.

The following are some thoughts on the conference and topics discussed which have highlighted issues for me to be raised upon return to work. The value in attending conference is that even if only one of these subjects produces a positive outcome the value (in $$$'s saved, quality of service improved or risks minimised) will far outweigh the cost of attendance.

1. During the keynote speech by Bob Henare, mention was made that despite crisis / Disaster Planning and eventual activation of emergency plans during the recent floods in the Bay of Plenty, the emergency generator ran out of diesel during the prolonged period of use as the diesel reservoir was not designed for constant 24/7 action.

(What is the duration our generators can run on their full tanks).
More importantly, prolonged UPS battery loads resulted in numerous failures and interrupted power supplies for monitoring and Biomedical services. (How can we confirm we have enough capacity?)

2. It would be of value for Clinical Engineering to review the paper of the UPS power supply outcomes and battery life tests reflected in the paper by John Penny of Vectek. (A copy was acquired from the presenter for this purpose.)

3. a) At the TRADES night mention was made of a delivery of electronic patient beds to ADHB. However the delivery process described did not match the delivery procedure meant to be followed at ADHB. The agent would follow through and contact us with the electrical safety tests and asset registration – I have made a note to follow up myself. (Just one of the many issues we have around receipting of new equipment)

   b) This reminded me that the issue I had raised last year - Is CE including all electrical beds in their electrical QA procedure? Mental note to follow up

   c) The issue of patient weight limits on patient beds and tables was touched upon by a patient bed distributor. The New Zealand population average weight is higher than the international standard. I asked if any study had been published – I was told that New Zealand Stats and a university study were available. We have patient beds with 140kg / 180kg / 220kg limits and some of these now have monitoring equipment attached – not included in design specs . This also needs to be looked into by CE.
4. NIWA – this visit was very enjoyable, but highlighted another issue worth pursuing by CE management. In the strategic / disaster plan of ADHB - Is there any mention of an acquisition of a stockpile of the bird flue "vaccine" for ADHB staff. **We are going to be the first line of contact for this virus** – certain institutions have made it their priority to have a source available of the "vaccine" for their own staff .e.g. ROUCHE & NIWA . Is this not an issue we should suggest be looked into?

Issues I found of value and interest :

1. If the time can be found for the following investigation it could benefit the ADHB in cost savings. There is currently an international tendency to introduce the use of more disposable laparoscopic instruments. ADHB have already introduced single use scissors! There could be a benefit for the other instruments if there can be a justified cost saving. By tapping some of the new initiatives introduced over the last year I am convinced it should be possible to reach some form of an outcome in this respect.
2. I would like to investigate more closely how CE could benefit from the NZIHEEM institute initiatives already in place ; but more importantly see how that our CE Dept. can guide New Zealand Biomedical Technicians development in this career choice for new Electrical / Mechanical Technicians .
3. CE has the opportunity to make quite a statement at the NZIHEEM conference 2006 here in Auckland by attending en-force and using the opportunity to present papers. It is essential to get the support of ADHB Management to see the value of non-clinical staff being given the opportunity for career / work / personal development through attendance of conferences of this nature. It would be great if we could get the support clinical staff receive for their self development, with dept's running on skeleton attendance for the duration of the conference. Nurses / Anaesthesia dept / Radiologists etc. can "stop" treatment to attend their conferences and self development sessions.

4. I do find great benefit in networking with other DHB's at the NZIHEEM conference. It is great to know there are other

telephone to discuss a like problem in our career discipline. There is also a perfect opportunity to get first hand info from service agents and importers of many of the biomedical devices – with many offering further training if requested.

I wish to take this opportunity to thank the ADHB Clinical Engineering Department for supporting me in my endeavour to further my personal development and career to attend this conference. As a full member I hope to attend all future NZIHEEM conferences as a delegate or visitor and will endeavour to contribute where possible.

Conference partners' report .....

Thursday means Trade Night. The Duxton's Ball Room was filled with lots of interesting displays including one that most people tried their hand at. The task was to 'surgically' remove a 'Mintie' from its wrapper as quickly as possible using only the tools used by Theatre staff in operations. One of our ladies won the prize with the quickest time. We were all so impressed with her good luck until we discovered she is a theatre sister!! Thank you Helen!

Friday 11th November

A van had been arranged for Friday to take us up the coast, but we talked the driver, Dave, into taking us up to the lookout on Mt Victoria. The day was quite cloudy but the views were great. Dave then drove us down to the Carrillon, where we discovered it was Armistice Day (the eleventh day of the eleventh month). Unfortunately we had to leave before the eleventh hour so we missed out on the ceremony but the soldiers on point duty certainly made for a 'special feel' as we looked about the Cenotaph and the Tomb of the Unknown Warrior.

As we headed up the coast to Lyndale we stopped for coffee and a 'pitstop' at Paraparaumu, then went on to the Prenzels shop and the Chocolate Factory.

Those businesses did rather well out of us doing some of our Christmas shopping!

Next stop Lyndale. It is a very out of the way place. So much so that we drove right past it and had to turn around. It is definitely a place waiting to be discovered with a delightful restaurant and lots of arty crafty shops and a lolly factory. We were all treated to a Kapiti Icecream ... yum! Dave, the driver, thoroughly enjoyed himself too as he hadn't been to any of the places we went to. Now he has a few more interesting places he can take tourists to in the future.

Friday night was the Formal Dinner, and because it was the Institute's 60th Anniversary, we girls decided to 'dress up' a little. We had bought Tiaras from the $2 shop earlier in the day and made an entrance, dressed in all our finery, to rapturous applause (and a few giggles).

A delicious dinner, speeches and awards, exchanges of email addresses and cellphone numbers, and the 60th 'Diamond Jubilee' conference was over. We all promised to meet each other again in Auckland in 2006.

Copper comeback .....

Initiative

Leading the initiative to bring the benefits of copper's antimicrobial properties to UK hospitals is the Copper Development Association's Antimicrobial Copper Interest Group, a forum for designers, architects, healthcare professionals, facilities managers, product manufacturers and material suppliers to share information and network. Information on the Interest Group and copper's antimicrobial properties can be found at www.cda.org.uk/antimicrobial.

A few low cost and easy to implement improvements in facilities design could reduce the viability of microbes on the most frequently touched surfaces. One low-cost option would be to retrofit door handles in those areas of hospitals where the transmission of infectious diseases is a special concern, e.g. intensive care units, burns units and quarantined areas. Like hygiene itself, copper should be making a comeback in our hospitals.

Biomed Update

Wellington Conference

The Biomed stream at the Wellington conference had a range of very relevant topics. Papers were of a high standard and will be distributed on a CD to all members. Elsewhere in this edition there is comment from 2 delegates.

Pacific Contacts

It was great to see two Fijian Biomeds at the Wellington conference. Viren and Venkat attended the Christchurch conference in 2003 and thanks to EBOS were able to participate again this year. We have also had contact with Vanuatu and the Cook Islands, with each expressing an interest in having on going contact.

Standards

After many years Rupert Ferdinands from Standards Australia retired and he has been replaced by Wayne O'Connor. Standards Australia has the project management responsibilities for both AS/NZS3551 and AS/NZS2500. There were a number of Standards committee meetings in the latter half of 2005.

-Electrical Installations - Mobile Medical facilities	NZ only. Draft out for public comment.
- Guide to safe use of Infusion Pumps	To be published early 2006
-AS/NZS3551	Meeting held to review and clarify a number of items forwarded to the Project Manager.
- AS/NZS3003	Meeting held to provide interpretation on areas raised by users. In addition an Inservice Testing Document is to be developed. In the near future there is to be further discussions on EP earthing requirements.
- Electromedical Coordinating Committee	As part of the ongoing Standards development process this group is exploring if there are any areas in the Electromedical area that are not currently covered. John Kelly at Standards NZ would appreciate communication from you, if there are areas that need further work

EST Practising Licence Renewals

A recent article in Electron highlighted the fact that in 2006 a new format for Practising Licence refresher courses would be implemented for Electricians and Inspectors. A modified form of this course will also be put in place for ESTs. Discussions with the Registrar of the Electrical Workers Licensing Group indicate a willingness to receive proposals for specific refresher training for those ESTs working on clinical equipment. Comments from those involved in the industry will be collated and incorporated into a proposal for the Board's consideration.

Email Updates

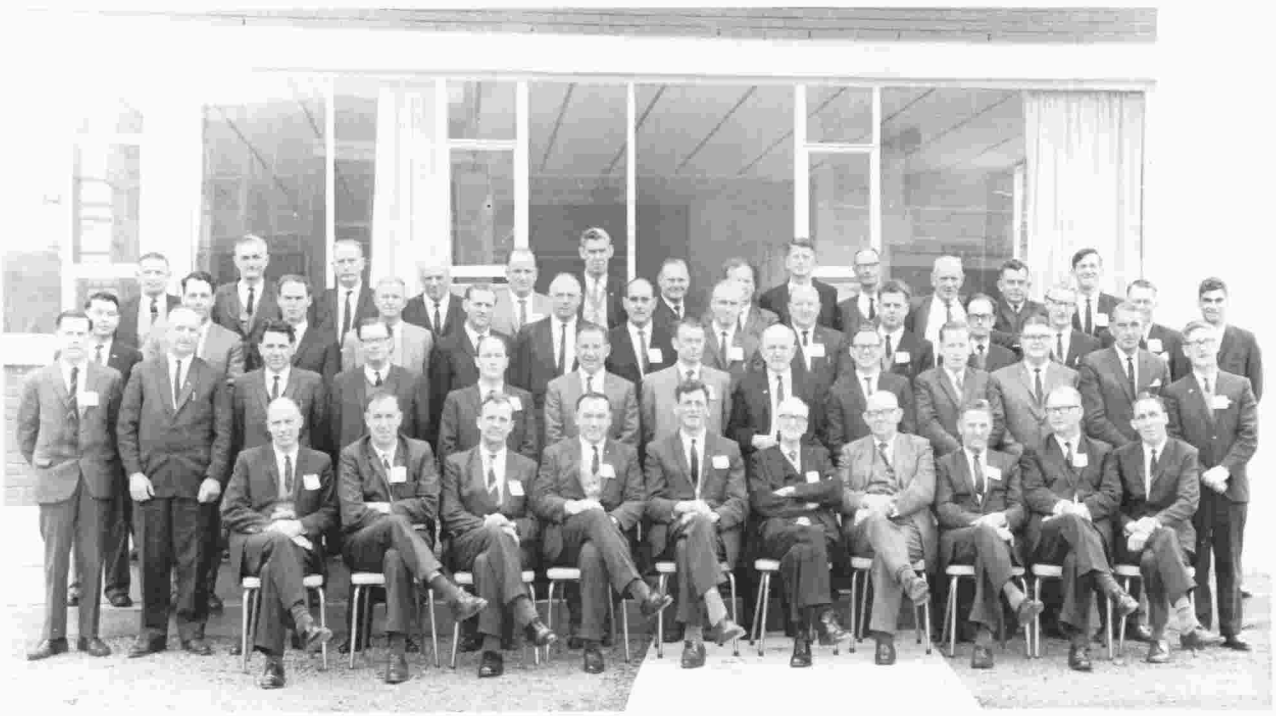
As items of interest come across our desk it is good to have these distributed to the wider Biomed community. Emails during the last year have received positive feedback and we will continue this process in the coming year.

Medsafe/TGA – Joint Agency

After the joint Ministers meeting at the end of 2005 the name for the joint Agency was announced – Australia and New Zealand Therapeutic Products Authority. Rules for management of the new scheme for medical devices will be circulated for comment in early 2006. Indications are that the new Authority will not be fully functional by July 2006. In the interim if you are importing a medical device directly, it is essential that you register the device on WAND.

PAST CONFERENCES of the NZ HOSPITAL ENGINEER'S ASSOCIATION

During each conference, held in early November, it had been the custom to have a professional photographer take a group photograph of all the delegates attending that conference. Harley Gardiner, formerly Chief Engineer at Wairoa then Napier, sent some of his old conference photographs to Bill MacDougal who has since passed them on to the editor. We intend to publish one from time to time as space allows. The first one to be published is from the Dunedin Conference 1968.



Front Row - AR Crosbie – Dunedin, W O Crosbie – Nelson, A Carmen – Wellington, A D Smith – Dannevirke, R B Pinel – Gisborne, F L Crosbie – Dunedin, G Bell – Napier, L Moffitt – Palm Nth, J D Jones – Canterbury, G W Parker – Waikato.

2nd Row - ? A Forrest – Reefton ? ? D Snook – Canterbury, H Gardiner – Wairoa, R Parker – Dunedin, W Beck – Dunedin, N Trower – Sth Canterbury, ? W Gilchrist – ChCh, L A Spence – Whangarei, ?

3rd Row - D M Palmer – Waimate, A O Jones – Dunedin, A D Anderson – Cherry Farm, B Lord – Hokitika, R Sullivan – ChCh, E Pople – Wanganui, E A Davey – Taumarunui, R Thurston – Blenheim, A E Wilson – Waikato, K Rees – Dunedin, D McKee – Gore, J H Sorensen – Auckland, R Childs – ChCh ?

Back Row - LJ Pepperell – Balclutha, J Maddocks – Wellington, J D Kelly – Greymouth, W Hodder – Tauranga, L A Thomas – Whakatane, W J Armstrong – Stratford, ? P Stevenson – Thames, G McKay – Dunedin ? J Scott – Kawakawa, ?
J Rigby – Ashburton.

We have to thank our retired member A.D.(Lex) Smith for the captions, with a ? being those not known. Lex points out that in the front row we have Arthur Crosbie – Chief Engineer Dunedin, sitting next to his brother Owen – Chief Engineer Nelson, sitting beside Owen is Alan Carmen their cousin – Chief Engineer Wellington and further along is Frank Crosbie – father to Arthur and Owen and he had been Chief Engineer at Dunedin. Frank Crosbie along with Jack Kelly in the back row were foundation members of the NZ Hospital Engineers Association back in 1936.' He thinks that Ray Pinel and himself may now be the only ones left from the front row.