

# NZIGE News

Volume 2006, Issue 1

June 2006

## Newsletter to Members

June 2006

Welcome to the first edition of the NZIGE News for 2006. These are produced on an 'occasional' basis to provide information to members and keep you up to date with activities and areas of interest to the Institution. Please enjoy!

Feature articles...

- Current competency framework (EXITO)
- Third Party Damage - Root Cause Analysis
- Gas Industry eCourses
- PE Pipe Testing methods
- NZIGE Scholarship
- Amazing historical facts of America

## Spring Technical Seminar

### Auckland 18 & 19 October 2006

The 2006 Spring Technical Seminar and 82<sup>nd</sup> AGM will be held at the Waipuna Hotel and Conference Centre in Auckland on the 18<sup>th</sup> and 19<sup>th</sup> October. The NZIGE Golf Tournament will be held at the Akarana Golf Club on the 17<sup>th</sup> October.



8<sup>th</sup> hole Akarana Golf Club

If anyone has any ideas for possible presentation topics or would like to do a presentation at the seminar please contact any of the Council.

## IPENZ e.nz magazine

This magazine is available to NZIGE members for \$40 + GST including postage.

There are 6 issues of magazine sold on calendar year basis.

To subscribe please visit [www.e.nz-magazine.co.nz/main.htm](http://www.e.nz-magazine.co.nz/main.htm)

## NZIGE Scholarship

One of the objectives of NZIGE is to improve and advance the technical training and general knowledge of our members. One way we do this is the provision of a sum of \$2000 each year in the form of the NZIGE Scholarship.

More recently the NZIGE Council has been more proactive in the way the Scholarship funds are used. This has enabled the funds to be used to contribute to the cost of Duncan Walker, NZIGE Life member, to attend a New Zealand College Auditor Training Course in Auckland and Chris Jobson to attend the 8th International Transmission and Distribution Conference and Exhibition in Brisbane.

This year the NZIGE Council are again actively promoting the NZIGE Scholarship Fund. Here are a few examples where the Scholarship Funds could be used.

- GASEX2006 Conference and Exhibition Beijing, China, 5-8 Sept 2006 [www.gasex2006.com.cn/](http://www.gasex2006.com.cn/)

- Gas Industry eCourse (See article in this newsletter)

These are only examples and we welcome all other suggestions and applications from our members. For further information and application forms please contact Bill Miller.

## NZIGE Service Fee

**“Just a reminder...”**

### Details:

- IPENZ currently charge NZIGE \$30 per member per annum incl. GST
- IPENZ has set the new fee at \$33.75 per member per annum including GST being an increase of \$3.75 per member per annum.
- NZIGE fee for all classes for membership will also be increased by \$1.25 per member per annum incl. GST, giving a total increase of \$5.00.
- The new fees are effective 1 October 2005, however due to our different subscription year; we will not be charged the increased fee until our next subscription year - 1 June 2006.
- NZIGE members who are also members of IPENZ will only have an increase of \$1.25 incl. GST as they will already be paying the IPENZ increased service fee through their IPENZ subscription. Currently we have about 24 Members who are IPENZ members.
- IPENZ last had a subscription increase in 2003.

## NZIGE Workshops

NZIGE is holding workshop on “Operational Asset Management” on the 26 and 27 June 2006 in Wellington. There are still a couple of places left so contact Craig Muirhead for further details. [craig@novagas.co.nz](mailto:craig@novagas.co.nz) or 04 917 8852.

The Council encourages our members to highlight any specific areas where a workshop would be beneficial for them.



## Current competency framework

### Preamble

The members of the Gas Association of New Zealand, have agreed to create a minimum set of competency requirements for the reticulated gas industry be that for natural or LPG. In doing so, it is agreed that for this purpose, the industry is best to cover that requirement across two principal areas, being: ‘gas distribution and gas measurement systems (GMS)’ and ‘Customer Services’.

To make best progress, and recognising that there is a significant inherent level of competence - skill within the distribution and GMS sectors, a framework for a certificate of competence would be established as a first priority. The next sector to have a similar framework created for it will be the Customer Services.

This document covers the framework for the certificate of competence criteria for the reticulated gas industry distribution and GMS sectors.

In recognising that to effect this framework will take time, the industry has committed itself to adopt these requirements across the respective companies with its formal commencement date of 1 October 2005, with a transition period such that the members agree to attain these minimum competency levels by 1 December 2006.

Under the auspices of the EXITO, the Gas Sector Advisory Group (Gas SAG), via a Gas Working Group, will adopt this framework and continue to deliver and/or manage it accordingly. The Gas SAG will be the Industry Group accountable for defining the scope of competency needs for this sector.

### Definitions & Intent

For clarity it is appropriate to note that:

**Level 1** - Competence requirements are expressed as the minimum that all employees within a company and/or contractors and/or

their sub contractors would be required to attain. This is therefore seen as the induction phase – course for the gas industry. Also, level 1 is a prerequisite to undertaking any higher level of national certificate.

**Level 2, 3 & 4** - prior to being able to complete a higher level of National Certificate, the previous lower level are a prerequisite.

**Specialist – infrequent activities** – The industry acknowledge that there are occasions that where, due to the specialist nature and thus frequency of some activities – work, that it may not be a requirement to attain the entirety of a particular level of national certificate in which that activity may be being undertaken. An example of this could be: field auditing, non destructive testing, specialist welding and such like. On these occasions, level 1 will always be a prerequisite, however the specialist would be expected to have a specific qualification for, and at no less a level to that which it is being applied.

**Reporting** - The industry has committed to ensure that their respective staff to which these levels of competence pertain will either have the required levels as identified or be able to report formally that they are in the process of attaining them, as they apply from Level 2 to Level 4 inclusive. A routine report, collected by company and provided in aggregated form, will be shared with the industry at its Gas SAG meetings. An example of the framework for this report is attached.

**Refresher training** – It has been recognised that there are certain aspects of competence that require to be refreshed routinely. A schedule of those units of learning have been included in this document.

In doing so, it is also recognised that there is a minimum introductory learning requirement which is covered at level 1.

## Third Party Damage - Root Cause Analysis

### Recap on Key Issues

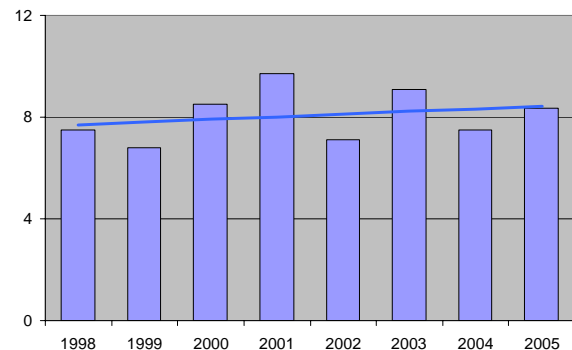
- Safety of uncontrolled gas escape
- Perception of gas safety - public & officials
- Loss of supply
- Environmental impact

- Time and effort to respond
- Disruption to communities

### Investigation

- Over 1000 'hits' each year
- Slight upward trend
- Industry 'Root Cause' Investigation

'Hits' per year



### HS&E Act Guidelines:

- Obtain plans of underground services before excavation
- Locate services using locating devices and plans
- Hand excavate until all services have been found

### Root Cause Analysis Results

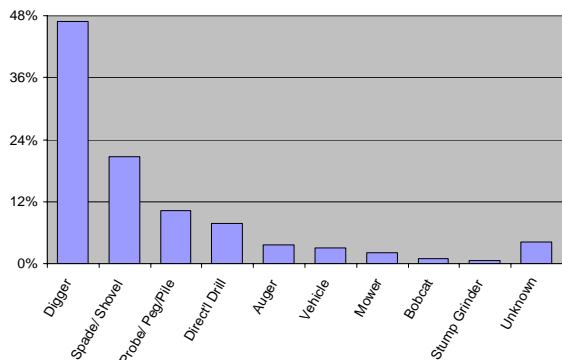
- 35% in private property
- 58% knew gas in area
- 37% said they requested plans
- 32% had plans on site
- 9% plans **inaccurate**

### Root Cause Results

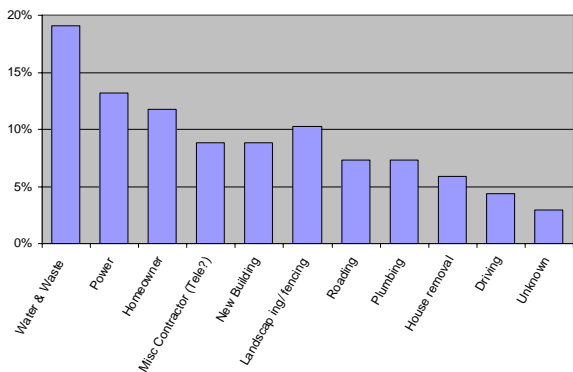
- 31% did some hand digging before excavating
- 18% identified gas before excavation
- 10% complied with HS&E Guidelines -

plans on site  
accurately locate  
hand dig until all services found

What did the damage?



Who did the damage?



Estimated Cost to Community

- Emergency response and repair
- Planned work interruption
- Emergency service costs
- Traffic disruption
- Business interruption & building evacuations
- Loss of gas supply – business/product loss

Est. ~ \$7,000,000 pa

Summary

- Key issue is safety
- Our stats indicate low level of compliance with HS&E Act Guidelines

Conclusion

- Attitude shift needed
- Better processes to increase compliance
- Someone needs to take ownership to initiate changes
- Balance safety with commercial ...

The gas industry workshops are planned to address and resolve the above issues.

SMS?

Changes to legislation through the Energy Safety Review Bill will required all Gas Network and Gas Measurement System owners to have a Safety Management System.

So what exactly is a Safety Management System? Here's a brief overview:

A Safety Management System is a tool that Health, Safety and Environment professionals use to minimise adverse effects of activities and operations on people and the environment. Key elements include:

- Hazard identification and Workplace control measures - safety equipment and procedures
- Effective site security and Contractor safety management
- Worker awareness and training
- Incident (or Occurrence) Reporting system
- Effective emergency response programmes
- Safety & Environment Performance measurement, including an Audit programme
- Management review of performance, policies and procedures.



## Gas Industry eCourses

Whenever or wherever you want to learn, GTI has a course for you—on the Internet, on CD, or in hard copy. Learn just what you need to know about a specific topic or supplement our classroom training with online courses to save travel time and costs.

### Gas Industry eCourses—On the Internet

- Introduction to Liquefied Natural Gas: Manage a fictional-but-real-world LNG project and analyse optimal LNG regional markets and select a preferred LNG buyer. Course tasks reinforce your understanding of this industry.
- Distributed Generation: Making Your Own Power—Distributed generation can be an excellent way to moderate increasing energy costs as well as provide an efficient backup system. But finding the right solution for each facility or application can be tricky. This eCourse gives you the opportunity to analyse the impact of installing distributed generation equipment in a large facility (in this case, a high school).
- ESI: Environmental Scene Investigation—Join your forensic "team" to help determine the source of contamination at a former Manufactured Gas Plant site. Learn what steps need to be taken to accurately identify the materials found in the soil in this stimulating interactive course.
- Investigating and Evaluating Keyhole Technology—put yourself into the action when you join your "project team" and learn whether keyhole is the right technology for your company and how can you convince your company's management that this technology is appropriate for the job.
- Gas Distribution Engineering (GDE) eCourse is the online version of this very popular classroom course. Successfully pass this eCourse and you're on the way toward earning GTI's RGDP (Registered Gas Distribution Professional) certification. Or just strengthen your distribution engineering background and knowledge. Work through 11 tasks required to bring natural gas to a new (fictional) subdivision. Every step of the way, you'll learn to solve realistic utility challenges.

- Gas Distribution Operations (GDO) eCourse, a required course for RGDP certification, is also excellent on its own as an important part of your career development as a natural gas industry professional.
- Pick Three eCourse Value Pack lets you choose three from several of our shorter courses at a cost savings; also, the combination of courses can be applied as the elective for RGDP certification.
- An Introduction to Regulator Station Design for Transmission Systems. Watch this space for more details??.
- Master of Gas Engineering Online Program: GTI and Illinois Institute of Technology (IIT) offer a Professional Master's program in Gas Engineering comprising 10 courses accessible online—anywhere in the world, any time. If you're not sure if you want to earn a degree, we offer a three-course Certificate, Current Energy Issues, comprising three Master's program courses. Or take any course in the program to advance your career.

### Self-Paced Courses on CD and/or hard copy

- LNG Plant Operator Training \* (earn a certificate)
- LNG Shipping and Cargo Handling\* (earn a certificate)
- Introduction to the Natural Gas Industry \*
- Gas Distribution Self-Study Course \*(earn a certificate)
- Industrial & Commercial Gas Marketing Fundamentals—also applies as CIGC Course 1 (Bypass)

\* **INTRANET OPTION:** If you have many people to train, you can put these CD-based courses on your company intranet with an annual site license. See the individual course pages for details or contact us.

More information can be obtained from [www.gastechnology.org](http://www.gastechnology.org)

## PE Pipe Testing Methods

Advantica's Spadeadam test site has extensive facilities to provide quality assurance and certification to manufacturers and operators of PE pipelines, backed by over 30 years

experience in the PE business. They work to recognised standards (Transco Standard PL2 or equivalent European Standards), assisting you in developing new products, carrying out type approval tests and supporting production testing. In addition, they offer a technical service for all types of PE pipes and fittings. Their services include:

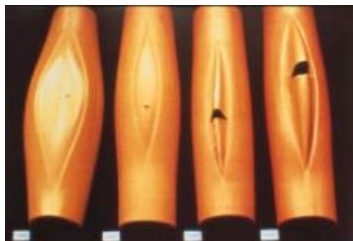
### Full Scale Rapid Crack Propagation (RCP) Testing

Plastic pipe materials up to 700mm diameter can be tested for their fracture resistance at full scale in a facility incorporating a chilled trench. Tests can be conducted in accordance with Transco Technical Standard PL2, ISO 13478 or other National Standards



### Type Approvals Testing

- 80C hydrostatic testing
- 20C long-term strength
- Tensile strength
- Hydrostatic testing after squeeze-off
- Hydrostatic testing of offset butt joints
- Extractability of additives
- Fusibility
- Accelerated Relaxation and End Load (AREL) tests
- Temperature cycling testing



They have over 50 fully automated pressure stations that can hydrostatically test pipes at pressures up to 40bar. Their large capacity water tanks means that they can test pipe assemblies of up to 630mm diameter.

### Joint Quality Testing

Evaluation of butt fusion and electrofusion joints by tensile testing. This is particularly useful when adopting a new line, or when assessing the quality of an existing line before upgrading the

operating pressure. This service is also an effective means of quality control for pipeline installers

### Product Development

Assisting manufacturers in developing new PE products and installation methods with their laboratory testing and field simulation facilities.

### Consultancy

Advantica is an established provider of consultancy services on the construction, commissioning and operation of gas transportation systems.

Their involvement with CEN, ISO and BSI as well as internal company standards means that they can offer beneficial advice and expertise on devising specifications for gas companies wishing to set up PE distribution systems worldwide.

They can work with manufacturers looking to market their products in new areas by giving technical support and providing testing services.

## Amazing historical facts of America

Have a history teacher explain this----- if they can.

- **Abraham Lincoln** was elected to Congress in 1846.
- **John F. Kennedy** was elected to Congress in 1946.
- **Abraham Lincoln** was elected President in 1860.
- **John F. Kennedy** was elected President in 1960.
- Both were particularly concerned with civil rights.
- Both wives lost their children while living in the White House.
- Both Presidents were shot on a Friday.
- Both Presidents were shot in the head.

### Now it gets really weird...

- Lincoln's secretary was named Kennedy.
- Kennedy's Secretary was named Lincoln.
- Both were assassinated by Southerners.
- Both were succeeded by Southerners named Johnson.
- Andrew Johnson, who succeeded Lincoln, was born in 1808.

- Lyndon Johnson, who succeeded Kennedy, was born in 1908.
- John Wilkes Booth, who assassinated Lincoln, was born in 1839.
- Lee Harvey Oswald, who assassinated Kennedy, was born in 1939.
- Both assassins were known by their three names.
- Both names are composed of fifteen letters.

#### Now hang on to your seat...

- Lincoln was shot at the theater named 'Ford.'
- Kennedy was shot in a car called 'Lincoln' made by 'Ford.'
- Lincoln was shot in a theater and his assassin ran and hid in a warehouse.
- Kennedy was shot from a warehouse and his assassin ran and hid in a theater.
- Booth and Oswald were assassinated before their trials.

#### And here's the kicker...

- A week before Lincoln was shot, he was in Monroe, Maryland
- A week before Kennedy was shot, he was in Marilyn Monroe.

### Email addresses

If you received this newsletter by post, we don't have an email address for you on our database. If you have email, please advise Bill Miller so we can add this to our list.

Email enables us to communicate quickly and cost effectively with our members.

### Change of details

Could all members please ensure that any changes to contact details - address, phone no's, employer, email etc are notified to IPENZ so we can keep our membership database up to date.

We currently have a number of members that we can't contact due to incorrect details. If you know of anyone who hasn't heard from us recently, please get them to contact Bill Miller with their updated details.

### NZIGE Council

The members of the NZIGE Council as elected at the AGM are:

#### **Craig Muirhead**

*President*

#### **Peter Thorley**

*Past President*

#### **Dan Hynson**

*Representing*

*Corporate Members*

#### **Geoff Brown**

*Representing*

*Associate Members*

#### **Geoff Evans**

*Vice President*

#### **Bill Miller**

*Secretary/Treasurer*

#### **Gerry Thompson**

*Representing*

*Corporate Members*

#### **Ian Gallagher**

*Representing*

*Associate Members*

### Contacts

When mailing anything to NZIGE please use the IPENZ address – NZIGE PO Box 12241 Wellington.

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President

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Secretary/Treasurer

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Boston Gas Company