

Staff News

Dale Gould (ARM employee no.29), an environmental engineer, joined the permanent staff on 1 November.

Part timers in the University vacation are Andrew Parkin (3), Deb Kendon (22) and Ben Parry (30).

Its been a vintage year on the examination front for staff, ex-staff and temporary staff:

Rachel Hoyle (1) MB, ChB, FACEM has gained a fellowship in emergency medicine.

Andrew Parkin (3) has now completed his BSc, majoring in maths and physics. Next year is his teacher-training course.

Deb Kendon (22) is now 3 A passes closer to her BA.

Amanda Pye (24) was awarded a Soroptimist Youth Citizenship Award for work done in the community, school and achievements made in doing so.

Dale Gould (29) has now completed his BE.

Ben Parry (30) passed all his papers this year towards a BSc.Tech degree. His time with us is part of the practical requirements.

Graham Environmental Consulting

For most of this year Bruce Graham has shared our premises, and even occupied them from time to time (most of his work is overseas).

He is now permanently established at Avondale and you can contact him at:

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Graham Environmental Consulting Ltd

P.O. Box 19-691

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AUCKLAND

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Air Dispersion Modelling

It is usual, as part of an assessment of environmental effects, to prepare an air dispersion model. The predicted ground level concentrations are then compared with a list such as the one in the Victoria Government Gazette No. S 240, December

Air Resource Management

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Where we are and how to contact us

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Part Time

Andrew Parkin

Rachael Houltham

Deb Kendon

Ben Parry

Amanda Pye

2001, and this comparison is used to set limits on an emission.

Councils which issue air discharge permits presently draw their limits from various sources. Even a specific case such as the Victoria list above is subject to revision. If a limit is set in a Resource Consent air discharge permit it is common to find an escape clause to the effect that the limits can be revised

at any time at the discretion of the Council. However both on an expiry date basis and a locality basis the limits for similar processes are likely to vary by a factor of 100 or more. There is obviously a need for the Ministry for the Environment to set national standards.

Baghouses

Particulate air discharge limits are being inexorably reduced, with a consequential increase in the number of processes fitted with a baghouse.

Emissions are low if the baghouse is performing at specification; high emissions are found when bags have holes in them.

Holes can be caused by

- embers from the process melting part of a bag
- abrasion between the cage and the bag during pulse-jet cleaning
- age (most bags have a rated lifetime)
- overpressure, sometimes caused when new bags are fitted but not subsequently conditioned before use.

Conservative operation of a baghouse includes keeping a spare set of bags in stock. If a bag, or several bags get holes in them



*Ben Parry testing
Madur flue gas analyser in foreground*

and the rated life-time is approaching it is better to replace all the bags as a set, rather than in groups. The replacement should include fluorescent dye testing as part of the commissioning process.

Some baghouses have an opacity monitor fitted in the exit stack to warn the operator of excess emissions. These should be checked on a regular basis to see that they are working prop-

erly—they often malfunction.

IANZ Accreditation

We have extended our list of accredited tests to include testing for heavy metals.

Andrew has recently completed his annual internal audit.

Tyler has been approved as an IANZ signatory.

We are accredited for the following tests:

1. Determination of Gas Flow Data
2. Total Suspended Particulate Emissions; Gravimetric Method
3. Aldehydes in Stack Emissions
4. Ambient Aldehyde Measurements
5. Determination of heavy metals.

Amine Emissions

There has been little demand in the last ten years for testing amine emissions. That has now changed; currently four clients have asked for these tests.

Amines are:

- odorous in low concentrations
- a problem less toxic than odorous
- readily removable
- interesting as a family of compounds

Supported by our analyst Chemsafety we are developing some expertise in this field.