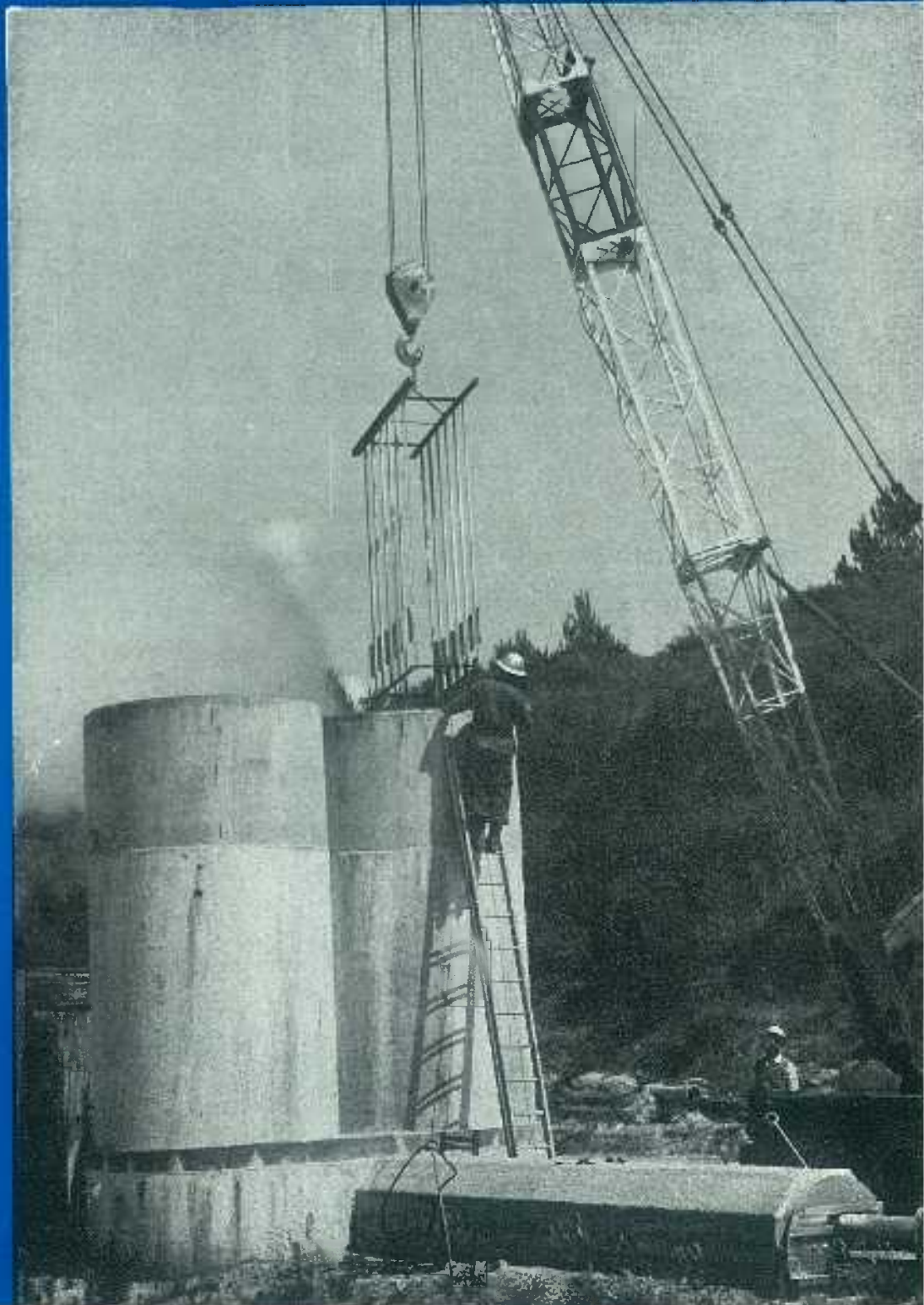


VOL. 34, NO. 2 : 15 FEBRUARY 1979

NEW ZEALAND

Engineering

THE JOURNAL
OF THE NEW ZEALAND INSTITUTION OF ENGINEERS



PRINT OUT

The monthly newsletter of the New Zealand Institution of Engineers

OPPORTUNITIES OVERSEAS

There is a lot said about opportunities overseas for engineers. But where do you start to grasp them? One place could be the newsletter of the United Nations Industrial Development Organisation (UNIDO). This is issued monthly, and in a recent edition, the list of *experts wanted* included a mechanical engineer for a year or more in Libya, and a chemical engineer to help with a feasibility study for the establishment of a calcium carbide manufacturing plant in Malawi. Another opportunity in Malawi was for the making of a study of lime production, and, also in Africa, a two-month evaluation is to be done of the market for wood-based panels in Nigeria and the Upper Volta. For that, a knowledge of French would be required.

There is also a list of *resources sought*. For instance, Malta is looking for used foundry equipment for the production of 6,000 tons a year of ferrous castings; and in Brazil, the manufacturer of a complete line of abattoir, meat processing and refrigeration equipment is interested in an association, or joint venture, with a foreign firm in order to increase working capital and to extend coverage of rapidly growing local and export markets.

Under the heading *resources available*, France offers know-how engineering, and possibly finance, for the manufacture of sausages, and possibly beef or mutton, for the Islamic market, and Sweden offers licence rights for a device used in collecting oil from the surface of water.

In another issue, New Zealand figures as one of four countries that are manufacturing a device called *Murcopak*, a tractor-drawn unit for collecting and compacting refuse, especially for use in developing countries.

There might be something in the UNIDO newsletter for you. They can be obtained by writing to —

UNIDO Newsletter,
U.N.I.D.O.,
P.O. Box 707,
A-1011 Vienna,
Austria.

UNION... OR DISSOLUTION

Unless there was substantial progress towards national coverage within the next few months, consideration should be given to the dissolution of the Northern Professional Engineers' Union, said the Secretary, J.C. Fitzpatrick, in his report to the 1978 Annual General Meeting of the N.P.E.I.U.W., held in Hamilton early in December. At the same time, he could see no prospect of the Union becoming a national union.

When the Union was first formed, it had a membership of approximately 30. This subsequently increased to approximately 80, but the loss of members, due to lack of interest, now nearly equals new membership applications.

Mr Fitzpatrick told the meeting that a minimum of 120 members are required to seek national status, and these should come from at least four industrial districts.

The Union already has members from outside the Northern Industrial District, but more are needed if national status is to be achieved.

NONSENSE

The industrial problems which sparked the formation of the Union had still not been tackled, except in the Northern District. A lot of nonsense had been written and spoken, said Mr Fitzpatrick, on the role of the Union within the profession. The inescapable fact of the matter was that New Zealand's industrial law recognised only two groups of persons, employers and employees.

There was no role, as far as the law was concerned, for learned societies, such as the Institution, to play. That was not to say that the Institution had no role to play; indeed, there was scope for the Institution, within the profession, to exercise its influence with both its employee and employer members, for the good of the profession as a whole.

BOLTHOLE

It had been suggested that the Union needed only to exist as a 'bolthole' to prevent other unions from claiming to represent engineers. There was no way, Mr Fitzpatrick said, that an industrial union could exist and do nothing except be a 'bolthole'. Its members had real problems.

The Northern Professional Engineers' Union had worked on behalf of its members in the areas of conditions of employment, redundancy, and wrongful dismissal. At the request of its members, the Union had already approached A.C.E.N.Z. with a view to negotiating a wage for consultants' employees, and it was negotiating

with an employer in industry for an agreement. That work could be undertaken more effectively if the Union were a national Union. The Australian Union, A.P.E.A., provided a good model on which to base any activities in New Zealand.

The Union had recently produced the first edition of its own newsheet, said Mr Fitzpatrick, in order to keep its members informed of Union activities.

THE UNION

At its meeting at the end of November, the Institution's Council took note of an industrial relations problem in Southland, and resolved that publicity should be given to the point that the Institution has, and can have, no standing under the industrial relations legislation. It can assist individual members in employment difficulties to a certain extent, but it does not have the influence in industrial disputes possessed by an organisation wholly composed of employee engineers and registered as an industrial union of workers.

Employee engineers stand to gain by belonging to a union which is able to further their interests through all the legal processes of the industrial relations legislation.

The problem in Southland considered by the Council has given rise to a vacancy. It is fair to say that the circumstances surrounding this could well have been the subject of union action, and any member considering a position in this area should contact the Institution secretariat for further information.

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Enquiries regarding membership of the Union are welcome, and they should be addressed to:

The Secretary,
26 Jeanette Street,
Hamilton.

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Devil's Advocate



THE ENERGY BIND

The Fourth Energy Conference will be held in Auckland in May. It is already being hailed as an opportunity for the profession to give a lead in the development of sound energy policy – energy being, as everyone knows, essentially an 'engineering' matter.

There is a trap, however, in looking at objectives in water-tight compartments. Energy policy cannot be divorced from economic objectives, the policy of growth, the whole life-style of conspicuous waste which we all take for granted. Projects which would reduce our dependence on imported fuel and valuable petrochemical reserves (themselves part of a vanishing world resource and increasingly coming under international political and economic pressures) demand scarce capital. This is an 'accounting' matter, which of course is nothing to do with engineers!

How many accountants will we see at the forthcoming Energy Conference? Come to that, how many engineers do we see at conferences on economic management? When the decisions on energy development are made by politicians, without engineering skills, how will they make the decisions involving compromise between engineering and accounting factors?

In the present tight economic climate, decision-making in Government and in industry are taking increasing account of 'economic' factors, which, because of inflationary pressures and tax distortions, favour inefficient operation to save capital expenditure. This is reflected in management structures which push the engineer further and further from the decision-making process.

Our prosperity as a country, which depends on the right decisions being made at the right levels, is suffering from this trend. The only way to restore prosperity is to manage our affairs properly. To persuade our politicians to do this, we need greater public awareness of the factors involved. We ourselves need to be more aware, and to actively debate these factors, from the viewpoint of informed citizens, rather than on narrow, technical grounds.

Is the Institution ready for this?

THE AMUSEMENT DEVICES REGULATIONS 1978

These Regulations were introduced recently and require very strong participation of engineers in the registration and inspection of amusement devices.

The N.Z.I.E. was able to make submissions when the draft of these Regulations was issued for comment some years ago, and, in addition, certain individual engineers were invited to comment.

We were informed recently that the Labour Department was re-activating the matter, and N.Z.I.E. requested the Department not to overlook the contributions of the engineers, as the item in the Labour & Employment gazette seemed to suggest it was doing.

Engineers requested to give a Certificate of Examination for an amusement device should be fully aware of their responsibility. Knowledge of the Regulations is essential. Copies cost 20c at the Government Bookshops.

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SHIVERING IN THE SHETLANDS

The former inter-island ferry *Rangatira* is shivering in the Shetlands, according to Wellingtonian Alex Gray (M), writing from London. Jobs for engineers are plentiful in the UK, though career prospects are limited, Alex says. He's working for an agency doing design calculations for a new oil terminal in the Shetland Islands – where the *Rangatira* is being used as a floating hotel for the workers on the site.

It took Alex nine months wandering through Asia to get to Britain. He now plans to tour Europe in the coming northern summer before returning to New Zealand towards the end of the year.

WELFARE COMMITTEE NOTES

The final meeting of the Welfare Committee for 1978 was held on 12 December. The emphasis in recent months has been on setting up tangible benefits gained by membership of the Institution. Current projects are:

- 1 **Insurance:** In addition to the term insurance already being arranged, general insurance guidelines are to be produced as a booklet specially written for engineers. Access will be available to most other forms of insurance at discounted rates. The need for Professional Indemnity insurance is being studied as a separate exercise.
- 2 **Credit Union:** A sub-group is exploring further the possibility of setting up such a union for Institution members.
- 3 **Purchase Discounts:** A trial scheme is to be introduced by Auckland Branch during 1979. If successful, details will be passed on to other Branches. This is intended to cover textbooks, calculators, instruments, etc., but extends into a number of wholesale warehouses.
- 4 **Income Tax Advice:** This is to be produced in the form of guide notes. A suitable author is being sought, and it is expected that this information will be updated regularly as Government measures change.
- 5 **Conditions of Employment:** Draft notes have been produced and are currently being put into final form. This particularly applies to those in Local Government, but will be of value to all employed engineers.

1978 has been a year of formulating ideas, and it is hoped that members will see these schemes put into effect during 1979. The "watching brief" of the committee over general welfare matters, such as redundancy, unions, and the activities of the Higher Salaries Commission, continues.

The Editor apologises for making an error in the date by which last month's PRINTOUT CROSSWORD competition entries were to be received. As a result, the deadline has been extended to 30 April, 1979. And the offer of \$5 Book Tokens for the first three correct entries opened still stands. Entries should be addressed to:

Crossword,
P.O. Box 12-241,
Wellington North.

CREDIT EXCHANGE WITH CANADA

Not so long ago, N.Z.I.E. Continuing Education Co-ordinator, Bill Blackwell, was summoned from his garden by an overseas telephone call. He was surprised and delighted to find himself talking to Duff Macdonell, Director of Engineering Programmes of the Centre for Continuing Education of the University of British Columbia. Duff was ringing to express interest in the N.Z.I.E. Structured Credit System, which he had read about in a copy of *N.Z. Engineering* which had found its way to Canada.

This conversation has given rise to an exchange of information which is sure to prove valuable. While at times our own programme has seemed ambitious — increasing the number of conventional courses available, and extending the use of audio tape cassettes — it pales in comparison with the Canadians' claim that they are contemplating the use of satellites for disseminating their continuing education courses.

In the same vein, a recent letter to us from the Center for Advanced Engineering Study of Massachusetts Institute of Technology, which admittedly serves a far bigger population than New Zealand's, reveals that the Center has developed over 500 videotapes, 16mm films and study guides in Engineering, Science, Mathematics and Management. A catalogue of these is expected shortly and will be studied with interest.

In late April, Bob Norman, Chairman of the Education Committee, will be representing the Institution at the First World Conference on Continuing Engineering Education, to be held at Mexico City.

These items are samples of the intense activity taking place all over

the world in this area, and of the importance attached to it. Studies have clearly shown that engineers are getting out of date much more quickly than they used to, and that the trend is continuing.

N.Z.I.E.'s answer to the problem is the Structured Credit System of Continuing Education. To be successful, this programme must have the support of members, particularly in these early stages. Details of the Management and General Studies Common Core courses, and the Mechanical and Electrical Common Technical Core courses, all to be held this year, can be expected soon. Try to get to at least one of them!

W.H.M.B.

DOBSON COMMITTEE OBJECTIVES

The main objectives of the Dobson Committees — Central and Branch Committees — are well known to the majority of members as the provision of information about engineering and engineers to the schools and to the public. The ways in which the Committees have been going about this task for the last five years are less well known. We republish below the general description of the way in which the Committees are currently operating.

1. Information to schools about engineering

This primarily the responsibility of the Branch Dobson Committees, which assess their local needs (and Branch resources) and choose methods to suit. The means of achieving these objectives include one or all of the following:

- (a) Contact with each secondary school in the area, possibly with one Branch member per school acting as contact;
- (b) Participation in schools', and/or other organisations', careers functions.

The Central Committee aims to provide a back-up service as well as co-ordinating programmes and disseminating ideas from one Branch to another. It has provided brochures, slides and advice.

2. Dobson Lecture

The Lecture is in memory of the Dobsons, and has been restyled as a public lecture. Its aims are:

- (a) To increase public awareness of engineering in New Zealand;
- (b) To provide a means of tackling contentious engineering issues, i.e., a forward-looking view;
- (c) To develop into a prestigious public lecture.

And the speaker to be chosen on these criteria:

- (a) A figure already known to most New Zealanders, not necessarily an engineer;
- (b) A person in such a position that he (she) need not pander to the public or the engineering fraternity;
- (c) He (She) should have proven ability as a public speaker, and should have something to say.

The Lecture need not be an annual event, and each Lecture will be delivered only once. The venue will be one of the main centres by turn.

NEW BRANCH CHAIRMEN



BRANCH CHAIRMEN

S.M.J. SMITH, C.Eng., M.I.C.E., (M). Chairman, South Canterbury Branch. Project Engineer, Upper Waitaki Power Projects, Ministry of Works and Development. Max Smith has worked on hydro electric power projects since the start of the Benmore project in 1959.

W.G. CASSIDY, C.Eng., M.I.Mech.E., A.N.Z.I.M., (M). Chairman, Waikato / Bay of Plenty Branch. Presently Company Engineer with Winstone (Waikato / Bay of Plenty) Ltd., which he joined in 1973. He is also a member of the Management Committee, Industries Division. He has previously been employed with the Ministry of Transport, N. Z. Railways, and the N. Z. Electricity Department.

