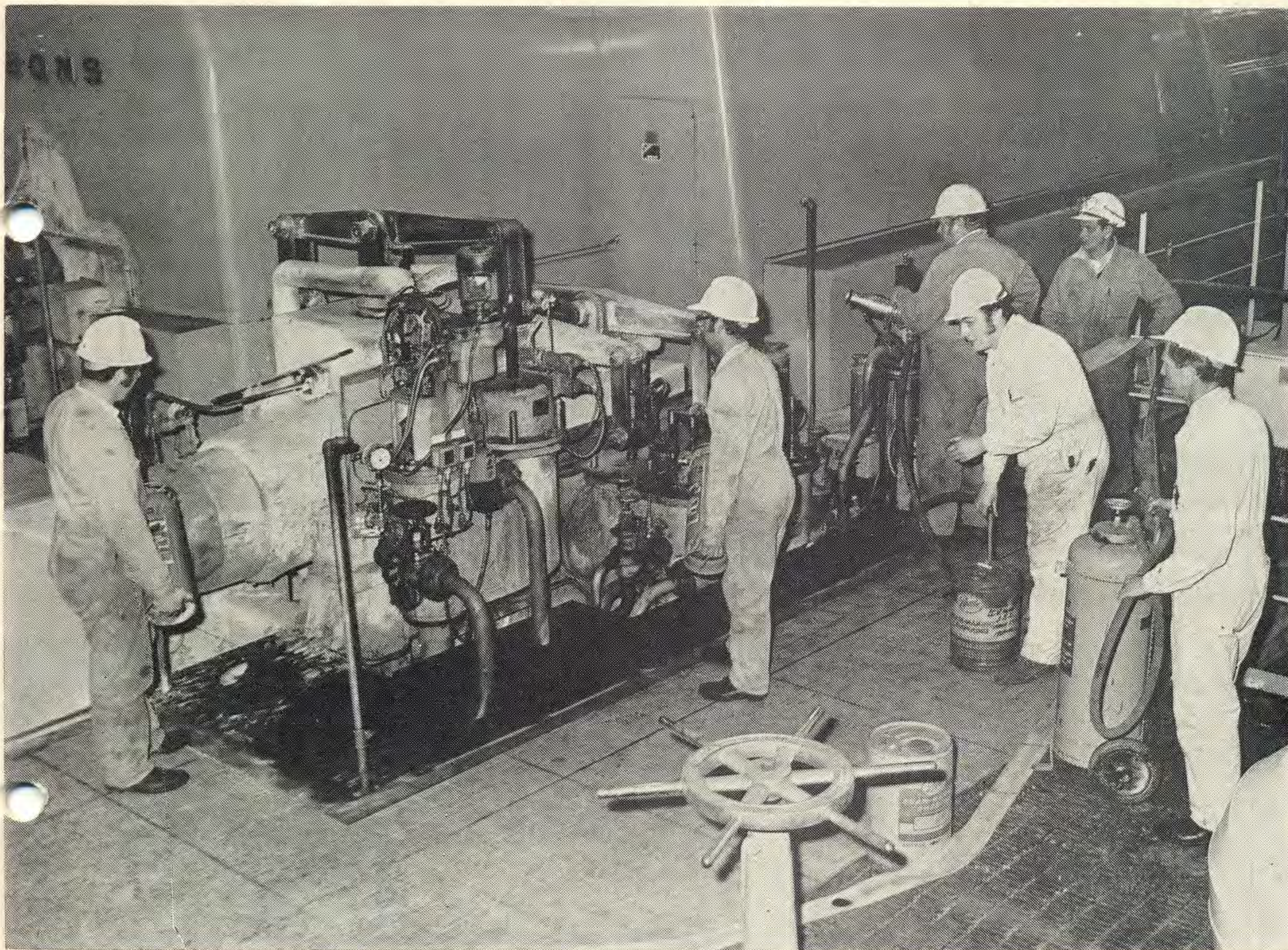


contact

THE STATE ELECTRICITY COMMISSION LATROBE VALLEY DEPARTMENT MAGAZINE

SEPTEMBER, 1972



Fire-Fighting Training Pays Off

Last month a potentially serious fire broke out on Unit 5 turbine at Hazelwood Power Station, shown in the photograph above.

The fire was located in a steam chest and was caused by the failure of an oil pipe. The resultant spillage of oil ignited on contact with metal at high temperature.

Whilst the alarm was still sounding the fire had been recognised as an oil fire and the appropriate appliances were being assembled and used by a number of Unit Attendants who are members of the shift fire-fighting team before the arrival of the remaining members of the team.

Because of the prompt and efficient action of the shift fire-fighting team the fire was extinguished only ten

minutes after first being noted and I would like to congratulate all personnel concerned.

The selection of the correct appliances for the particular type of fire and the general competent approach shown by the shift fire-fighting team highlights the importance of regular training in the prevention and control of fire.

There are, unfortunately, many potential sources of fire in the Latrobe Valley Department. Some of these are: overheated conveyor idlers that cause belt fires; sparks from welding work igniting rubbish or coal spillage; frictional heat generated from the failure of moving equipment; electrical equipment failure; oil spillage on high temperature metal, as in the recent Hazelwood fire; spontaneous combustion; sparks from boiler furnaces igniting rubbish or coal spillage and cigarette butts in coal dust, grass, rubbish, etc.

Since January, 1970, when a rising conveyor gallery to Hazelwood Power Station was destroyed by fire, a considerable amount of research, investigation and testing has been carried out. Reference has been made to allied industries, both in Australia and overseas, to see how our fire prevention practices compare with theirs.

Considerable testing has been carried out on the fire protection of coal conveyors. This has included erecting lengths of simulated open and enclosed conveyor galleries, deliberately setting these alight to see how various extinguishers and fire detectors perform under realistic conditions. From the results obtained, fire protection along the rising conveyor to Yallourn 'W' Power Station was arranged to provide optimum fire protection to both personnel and plant.



Shift fire fighters attend a training session. Over 90 per cent. of Hazelwood personnel have received some degree of training and the aim is to raise this figure to 100 per cent.

Extensive testing has also been carried out on High-Expansion Foam. This is a means of extinguishment where the fire is starved for air by smothering with foam. Foam, similar to that produced from soapy water, is generated at rates up to 1,500 cubic feet per minute, i.e., capable of filling a room 15' x 15' x 7' in one minute. This form of protection is ideally suited for combating fires in enclosures. A high expansion foam installation is currently undergoing testing on Unit 3 Turbine at Hazelwood Power Station.

However, the most effective methods of minimising fire hazards are good housekeeping, fire protection awareness and, as shown in the Hazelwood fire, a large number of personnel who have been trained to cope with outbreaks of fire confidently and efficiently.

Graham Black.

Acting Manager
Latrobe Valley Department

YALLOURN LIBRARY WEEK DISPLAY

All municipal libraries in Gippsland marked Australian Library Week with displays, and the Yallourn Library was no exception.

Pictured here is the Yallourn display in the window of the Briquette Sales Centre. Latrobe Valley Department Librarian Bruce Ponting puts the finishing touches to the display, watched by his assistants Helen Ashmore and Beryl Nelson.



Apprentices on the Move

One of the results of continuing attempts to improve the training of apprentices is that they now move between work locations more frequently to give them the opportunity of gaining practice and knowledge in specified skill areas. Most apprentices now move twice a year after the first 12 months of basic training and some move as many as three or four times during a year.

Because of this, the problems of keeping approximately 400 apprentices on the move and keeping track of those movements has proved to be a major task for the Education and Training Section in past years and has required complicated and detailed records.

Recognising this problem the staff at the Training Centre pooled their thoughts and commenced working on the concept of a "planning board". With some assistance from the Management Services Detachment it was not long before a system of operation evolved.

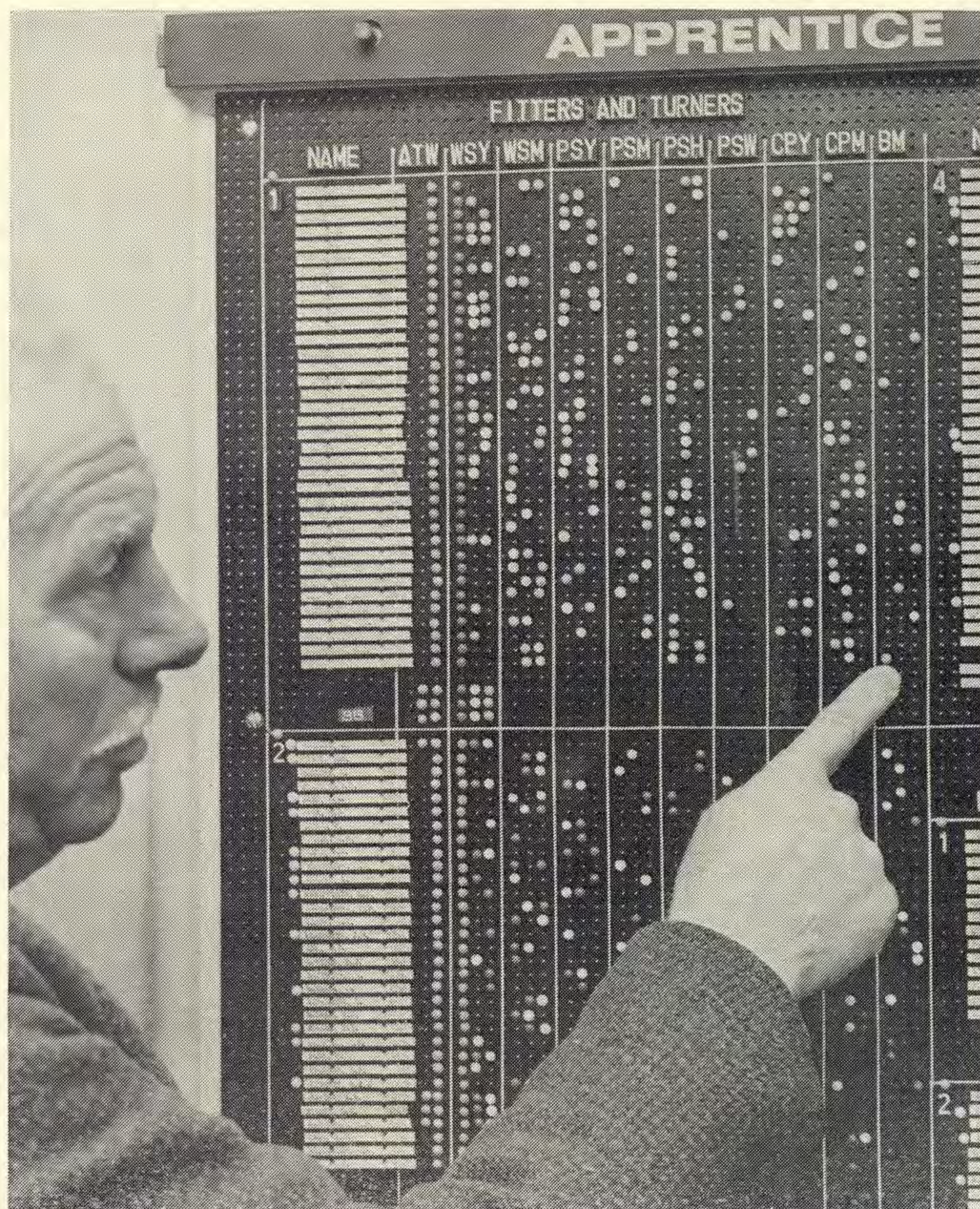
The concept of the planning board was built on these criteria:

- (i) Simplicity of operation;
- (ii) Accommodate a 4-year training term;
- (iii) Have the ability to provide budget information;
- (iv) Be relatively easy to read.

The panel is constructed on $\frac{1}{4}$ " x $\frac{1}{4}$ " hole format perforated bakelite sheet mounted on a caneite backing with the attachment of letter blocks, mapping pins of various colours, cotton elastic, name cards.

A legend gives a key to the colour coding of pins as follows:

- Red — 1969 & 1973 Years
- White — 1970 & 1974 & 1978 Years
- Orange — 1971 & 1975 & 1979 Years



Apprentice Training Officer Fred Douglas examines a detail of the planning board that helps him keep track of the 400 apprentices that the Latrobe Valley Department has in training at any one time.

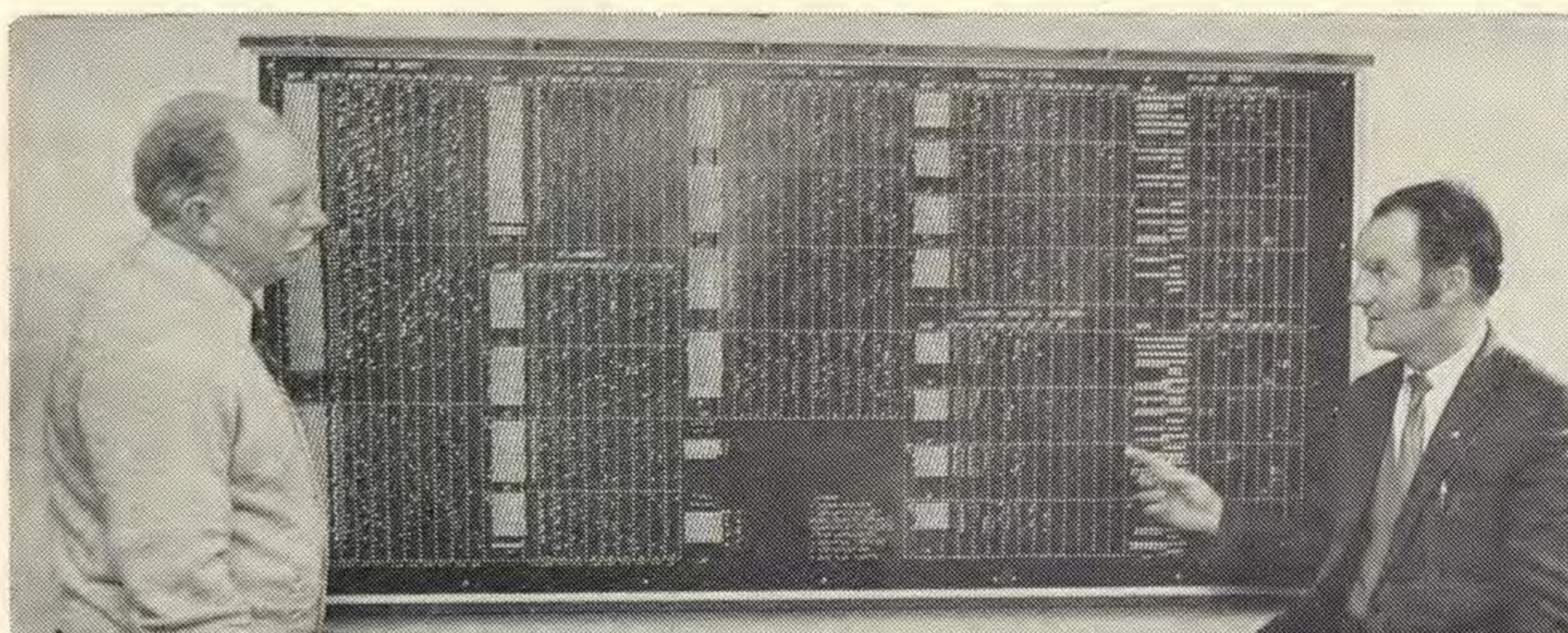
Green — 1972 & 1976 Years
 Blue — Apprentice "assigned in"
 Yellow — Awarded Proficiency Pay
 Orange/White — Repeat School Year

In addition to this information the board can readily provide details of:

- Numbers of apprentices in each trade;
- Numbers of apprentices in each year of trade;
- Numbers of apprentices in each year of training;
- Total numbers of apprentices;
- Training capacity of sections;
- Man-hours budget information;
- Training location at any point of time;
- Full name and identity number;
- Total number of trades.

Having this basic information readily available on display, the Apprentice Training Officer, Fred Douglas, can gain very rapid access to all other stored information on any apprentice.

The board, although appearing complicated, has certainly eased the administrative burden and this allows a more effective and efficient control of apprentice training. This project has demonstrated how a quite complex task has been simplified using a visual medium.



Fred Douglas and Assistant Education and Training Officer Rick Crookes discussing the aspects of the complete planning board.

CONSUMER ACTIVITIES IN THE L.V. DEPARTMENT

By John Drewett, Acting Assistant Departmental Materials Officer

Ralph Nader's recent visit to Australia has highlighted the rapid growth of the consumer movement. It is interesting to compare the consumer activities of a typical family with the same activities in the Latrobe Valley Department. Representing our 7,000 'consumers' in the Department is the Materials Sub-Division. There would be few families who in 12 months would use 281,191 items costing \$5,925,351. This was the amount of materials used in this Department in the financial year ending June 30, 1972.

In an average family we find that consumer decisions are made by each of its members. Father decides, or thinks he does, on major durable items such as a home or a car. Mother is interested in some large items such as furniture, but most of her decisions relate to the non-durables or perishables needed by the whole family. This may bring her into conflict with the children who would possibly make different decisions, if allowed, about articles such as clothing. The family pattern of consumption can be influenced by many factors such as interests, age and preferences. In the end, however, it is determined by the size of the family's needs and the amount of money available. Needs can be arrived at in the case of food by knowing the amount of meals the family will eat before the next shopping trip, plus a margin for unexpected visitors. To meet this need the housewife examines advertisements in newspapers and on television and compares different products for quality, cost, quantity, taste and length of time they will keep. She takes advantage of 'specials' to build up her stocks

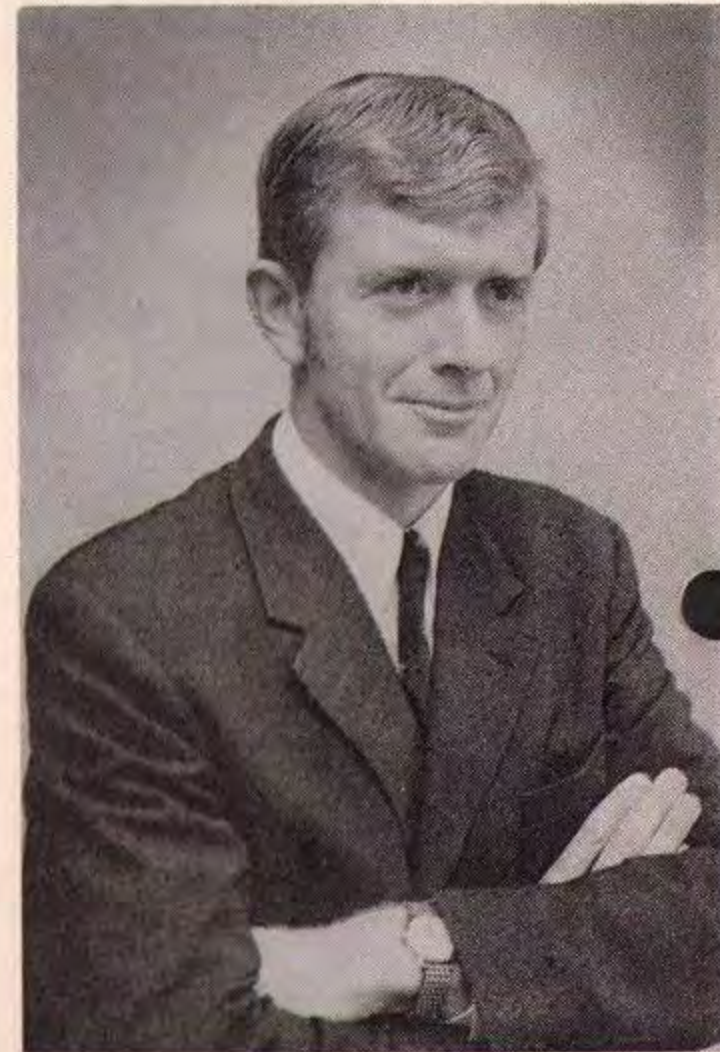
economically but is careful not to have too much on the shelves for too long. Some items she will defer purchasing until the time they are actually needed.

On larger, more durable items the various members of the family consider the alternatives before coming to a decision. Each then goes to make the purchase after deciding what is best value. It is here that the family pattern departs significantly from what happens in the Latrobe Valley Department.

Can you imagine the chaos if each one of us had to make our own arrangements to obtain all the materials needed on the job? We would spend a considerable amount of time looking for items and consequently not be able to concentrate on our particular work.

The role of Materials Sub-Division is to meet user demands for material at best value to the Commission. As with the family example we are limited in the amount of money we have available, while our future needs can be determined by analysing past usage. Unfortunately, however, the Materials people cannot read minds. If you are going to increase your use of an item for a period then let them know so that additional provision can be made. In this way your needs can be met.

When deciding what items will be used within the Commission, alternative products from different suppliers are compared for suitability, quality, price and reliability of supply. The equivalent to the housewife's newspaper advertisements is the Commission's Catalogue of Standard Materials



John Drewett

which gives a complete listing of standard materials available.

The catalogues are well worth studying before any material is requisitioned. A catalogue description of an item when you are requisitioning means everyone from the user to manufacturer is talking the same language. Although catalogue descriptions aren't in conversational English they do ensure good communication. So if you require materials that will be easy to obtain now and in the future then consult the Catalogue and you'll probably find them already listed. Master Catalogues are updated daily to reflect accurately materials going out of service and being replaced by newer items. Amendments are distributed to Catalogue holders progressively.

A standardization approach means our inventory, which is the value of all stock held in store, can be kept at a

minimum. An inventory larger than necessary ties up capital which could be employed more effectively elsewhere.

The Latrobe Valley inventory contains 18,201 distinct items with a total value of \$1,755,636 which means a considerable amount of tied-up capital. Any reduction in the size of the inventory means this capital can be released for other purposes. Just as the housewife who stocks up on too many 'specials' finds difficulty in storing them, an over-large inventory takes up valuable space and absorbs further capital by having to provide additional storage facilities. Additionally, in an always changing situation new products can make items obsolete or deterioration can take place on the shelf.

You can see there are a number of sound reasons why the inventory should be kept as low as possible and you can play your part by only requisitioning the amount of material immediately required.

Within Materials Sub-Division there is a Supply Section that provides the material to be issued from the stores. Setting up a central section means the Department speaks to suppliers with one voice. Backing up the local supplies people are the Purchasing and Stores Divisions of Supplies and General Services Department.

As mentioned earlier, standard items are used throughout the Latrobe Valley and are also in general use throughout the Commission. To obtain a large proportion of these items a Delivery Instruction Contract is let. Contractors can tender for the supply of the item direct to the store where the need exists. In this way we gain the advantage of better prices, better delivery, lower stocks and less double handling.

Other items are obtained by a



John Burke, a Storeman at Yallourn Stores, demonstrates the wide range of ball bearings held in stock. He is holding a $\frac{3}{8}$ " (9.52 mm) O.D. and $\frac{1}{8}$ " (3.175 mm) I. D. bearing, whilst the one on the floor has an O.D. of 25" (620 mm) and an I.D. of 16" (420 mm).

specific order from the Purchasing Officer, or if time is limited by Local Purchase or even 'Petty Cash'. There is a range of methods available to the Supplies Section so that user needs can be met.

As a consumer you can ensure your needs are met by precisely describing what you are after. Give as much notice of requirements as possible and use standard items described in the catalogue whenever possible.

One thing though, think before filling in the date by which the item is required. If it is urgent then place a date on the form, if it is not, then do not put ASAP. This abbreviation can cause any normally calm Materials man to become quite tense.

The Supply Section acts as the liaison between the user and the supplier. Once a Purchase Requisition has been forwarded to Melbourne there is a need for follow-up to ensure that delivery is made on time. You have probably heard of Murphy's Law. If it can go wrong it will. At the worst possible time, in the worst possible

way, in the worst possible place, etc., etc. Reasons for non-delivery of goods cover every conceivable delay and a few others. Rail or power strikes are useful excuses for suppliers as they can be used before, during and after the actual strike. Some suppliers seem to get a certain satisfaction in being able to tell the Commission: "We can't supply you with our product because you're not supplying us with yours."

Generally the goods get through as a result of a lot of hard following up.

There is a final similarity with the consumer movement and this concerns defective items. The Materials people can't take action unless they are told about defects. If you have a problem put it in writing after you have investigated it. People are only human and we all resist change. Don't 'knock' a product just because it comes in a different coloured tin to the previous supplier, a lot of thought has gone into its selection so give it a fair trial.

So the next time you need materials for a job think of yourself as a consumer and co-operate with the Materials organisation, whose aim is to help you get on with the job.

Hazelwood Overcoming Design Problems

In November, 1970, it was decided that certain design faults in plant and machinery installed at Hazelwood Power Station required modification if an acceptably high degree of reliability were to be achieved.

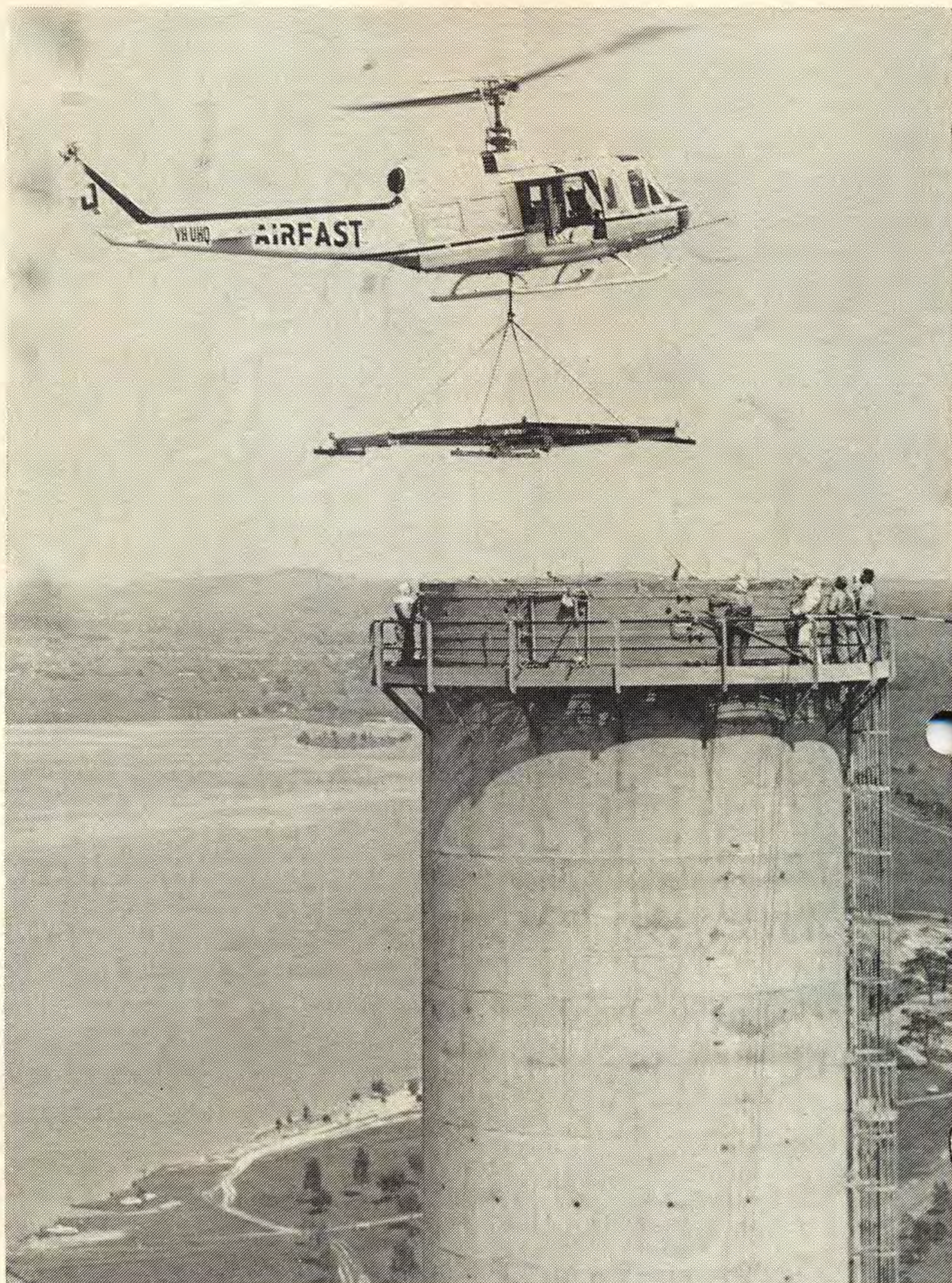
A modification programme was drawn up under the guidance of a committee chaired by Hazelwood Power Station Superintendent, Don Clark. This programme started to be put into effect in April, 1971, and is due for completion in the Spring of 1973.

The modification work list consisted of over one hundred items, but the major problem areas were concerned with condenser tube failures, high pressure heaters, failure of Harland pumps, feed valves, superheater sootblowers, boiler circulation, vestibule sealing and cleaning, chimney stack repairs and improvements to coal handling plant.

The modifications have been carried out by the Commission personnel and, with the agreement of the different unions concerned, by contractors.

Some of the modifications involved a considerable amount of work. For instance, to rectify the condenser tube failures it was decided to replace the miles of brass tubing which was being affected by concentrations of ammonia by stainless steel tubing which is not attacked by ammonia.

P.S.S. Don Clark's immediate target is an overall availability of 75% — that is, six units on line and two undergoing maintenance at any one time. He hopes later to improve this to 80%. Any further improvement is affected by the law of diminishing



One of the modifications being carried out at Hazelwood is the Unit 2 stack repair.

The chimneys have an outer concrete shell and an inner lining of firebrick with a 4 inch air gap between the two. The purpose of the 4 inch air gap is to cut down on the heat transfer between the hot flue gases and the outer concrete shell. On Unit 2 a seal has failed at the chimney top, allowing dust to fill up the air gap. Heat is able to transfer more easily through dust than air, so the concrete became too hot and cracked.

The purpose of the work is to pull out the top 30 feet of brick work, remove the dust, then replace the brickwork and make a new, improved seal. In addition there are lead seals at each 30 feet drop of brickwork down the entire length of the chimney—these may also need to be repaired, after an inspection.

To enable the work to be carried out the following gear is needed —

1. A cat head (which is a steel structure at the chimney top, 450 feet above ground level) upon which hang the guide ropes and pulleys for the gear which traverses the inside of the chimney. Weight of this gear is five tons and it was erected by helicopter, as shown in the photograph above.
2. A cage (a vehicle that is motivated by electric winches) to enable men and material to be transferred from the chimney base to any height above the base. Weight of cage is 1500 lbs.
3. A work platform upon which the men stand and material can be stored. This platform weighs approximately five tons unladen and its design is such that its diameter can be changed to follow the contour of the chimney which tapers from 30 feet at the bottom to 21 feet inside diameter at the top.

(Continued on Page 11)

Song of the Incandescent Lamp

THIS IS THE LIGHT

that is safe, clean and convenient.

THIS IS THE LAMP

that gives the light that is safe, clean and convenient.

THIS IS THE FILAMENT

in the lamp that gives the light that is safe, clean and convenient.

THIS IS THE FUSE BLOCK

that protects against fire, from the wires joined to the filament in the lamp, that gives the light that is safe, clean and convenient.

THIS IS THE TRANSFORMER

mysterious and sure, that induces the energy conveyed by the wire to the fuse block, that protects against fire, from the wires joined to the filament, in the lamp, that gives the light that is safe, clean and convenient.

THIS IS THE GENERATOR

with armature and field, that generates electricity, to excite the transformer, mysterious and sure, that induces the energy, conveyed by the wire to the fuse block, that protects against fire from the wires joined to the filament, in the lamp, that gives the light that is safe, clean and convenient.

THIS IS THE TURBINE

with speed and power, to drive the dynamo, with armature and field, that generates electricity, to excite the transformer, mysterious and sure, that induces the energy, conveyed by the wire, to the fuse block, that protects

against fire, from the wires joined to the filament, in the lamp, that gives the light that is safe, clean and convenient.

THIS IS THE BOILER

made of steel that furnishes steam for the turbine with speed and power to drive the generator with armature and field, that generates electricity to excite the transformer, mysterious and sure, that induces the energy conveyed by the wire to the fuse block, that protects against fire, from the wires joined to the filament, in the lamp, that gives the light that is safe, clean and convenient.

THIS IS THE WATER

from the Gippsland Rivers, in the boiler made of steel, that furnishes steam for the turbine with speed and power, to drive the generator with armature and field, that generates electricity, to excite the transformer, mysterious and sure, that induces energy, conveyed by the wire, to the fuse block, that protects against fire, from the wires joined to the filament, in the lamp, that gives the light that is safe, clean and convenient.

THIS IS THE COAL

from the Latrobe Valley, that heats the water from Gippsland Rivers, in the boiler made of steel, that furnishes steam for the turbine, with speed and power to drive the generator, with armature and field, that generates electricity, to excite the transformer,

mysterious and sure, that induces the energy, conveyed by the wire, to the fuse block, that protects against fire, from the wires, joined to the filament in the lamp, that gives the light that is safe, clean and convenient.

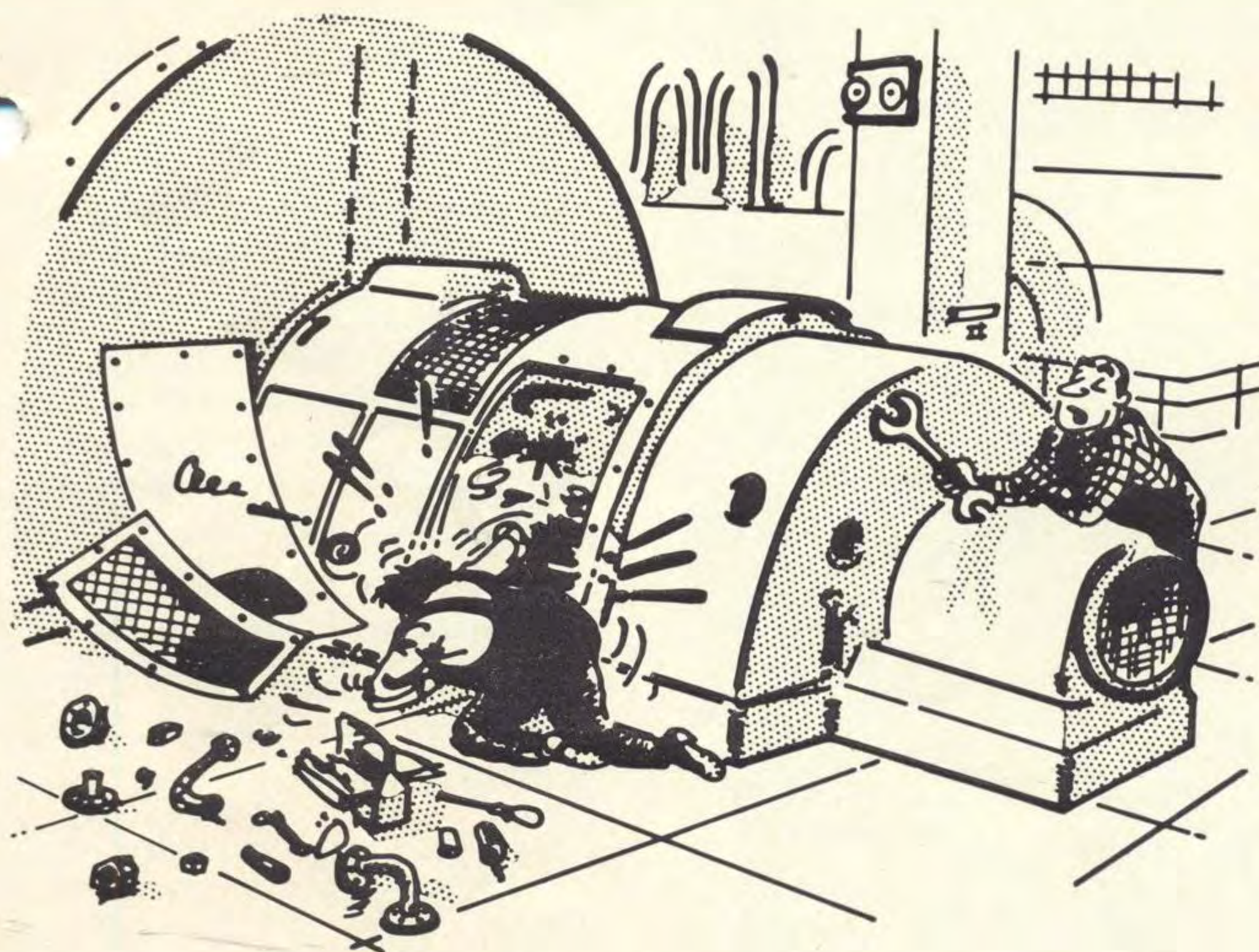
THIS IS THE MAN

with a little book, who goes each quarter from door to door, who scans the meter with eager look, who tells the truth, neither less nor more, of what becomes of the coal from the Latrobe Valley, that heats the water from Gippsland Rivers, in the boiler made of steel, that furnishes steam for the turbine, with speed and power, to drive the generator, with armature and field, that generates electricity, to excite the transformer, mysterious and sure, that induces the energy, conveyed by the wire, to the fuse block, that protects against fire, from the wires, joined to the filament, in the lamp, that gives the light, that is safe, clean and convenient.

First Aid Competition 1972

The Commission has decided to make some changes in the procedures relating to First Aid Competitions. Victoria will be divided into four Divisions instead of three zones as was the case last year. These Divisions will be determined annually depending on the location and the number of teams competing. Each team in the respective Divisions will compete in heats, the winners of which will compete in a Divisional final. This winner will represent the Division at the Championship final.

These changes in procedure will not alter arrangements already made for this year. We will have our local First Aid Competition on Wednesday, October 18, at the Visitors' Centre, Yallourn. This day will be regarded as heats within this Division. From these heats two teams will compete with one other team from Gippsland Electricity Supply Branch in a Division final to be held at the Traralgon City Hall on Friday, October 27, at 8 p.m., following a dinner at 6 p.m. The winning team from this evening will then represent Division Two at the Championship final to be held at Wangaratta on Friday, November 24.



"'Ere, Fred — you might have the wrong spanner. Try bashing it with mine."

PERSONNEL PAGING AT YALLOURN 'W' POWER STATION

by Peter Euman, Engineer (Electrical) Yallourn 'W' Power Station

Rapid and effective means of establishing verbal communication between personnel at all levels plays a vital role in the overall operation of a modern power station. We usually achieve this via the normal telephone system, but this presents disadvantages, particularly if some personnel have a roving commission or are absent from their usual location. In the past we have relied on various forms of signalling and public address type paging systems with varying degrees of success dependant on the local environment and the ability of the person being called to recognise a particular signal. All such systems have suffered the distinct disadvantage of not providing direct verbal contact between the personnel concerned.

At Yallourn 'W' an automatic radio paging system has been installed which provides a medium to enable direct

contact between key station personnel should they be required urgently whilst absent from their office or normal operating position.

The system comprises push-button controls located on each unit control console in the Unit control room, an encoder unit, 6 radio transmitter units and a number of small pocket receivers. The six transmitting aerials are strategically positioned to ensure complete coverage of the power station area and the system has an operating range of approximately one mile.

Calls are initiated either by manual operation of a push-button console or by an automatic telephone access provision which has been specifically included to eliminate continuous manning of the manual console. This facility also enables a direct connection be-

tween the caller and the person being paged.

Each call consists of two tones sent out twice from each of the six transmitters giving a total of twelve pulses. Normal cycling time for these pulses is approximately 30 seconds but is reduced to 20 seconds when the 'URGENT' facility is used. The pulsed call is thus transmitted at a faster rate to alert the recipient.

Nominated day officers and shift operating personnel are issued with small radio signal receiver units which emit audible signals when calls are initiated. Depending on the location of the person being paged, the number of pulses received may vary from the maximum of twelve down to one or two in areas of poor reception. Each paging channel has been allocated a three digit code number with at least two receivers per channel. In the case of shift personnel, there are three receivers per channel. This system has been adopted to ensure a spare receiver is readily available in case of failure and to maintain a fixed code number for each nominated post or person.

Calls to shift personnel are initiated from the push-button stations located at each unit control console. To initiate a call the console push-buttons are operated in the order of the code digits of the receiver being called.

When the third digit is selected its light flashes intermittently indicating that the call is being transmitted. If the call is of an urgent nature, the 'URGENT' button provided is operated immediately after the third digit button. A 'RESET' button is also provided to enable cancellation of calls selected in error. Shift personnel receiving a call telephone the appropriate Unit Controller via an operations direct line or by a dial telephone from messages or instructions.

Calls to other than power station shift personnel are achieved via the telephone access facility. Calls may be initiated from any dial telephone within the power station area by dialling a prefix number followed by the

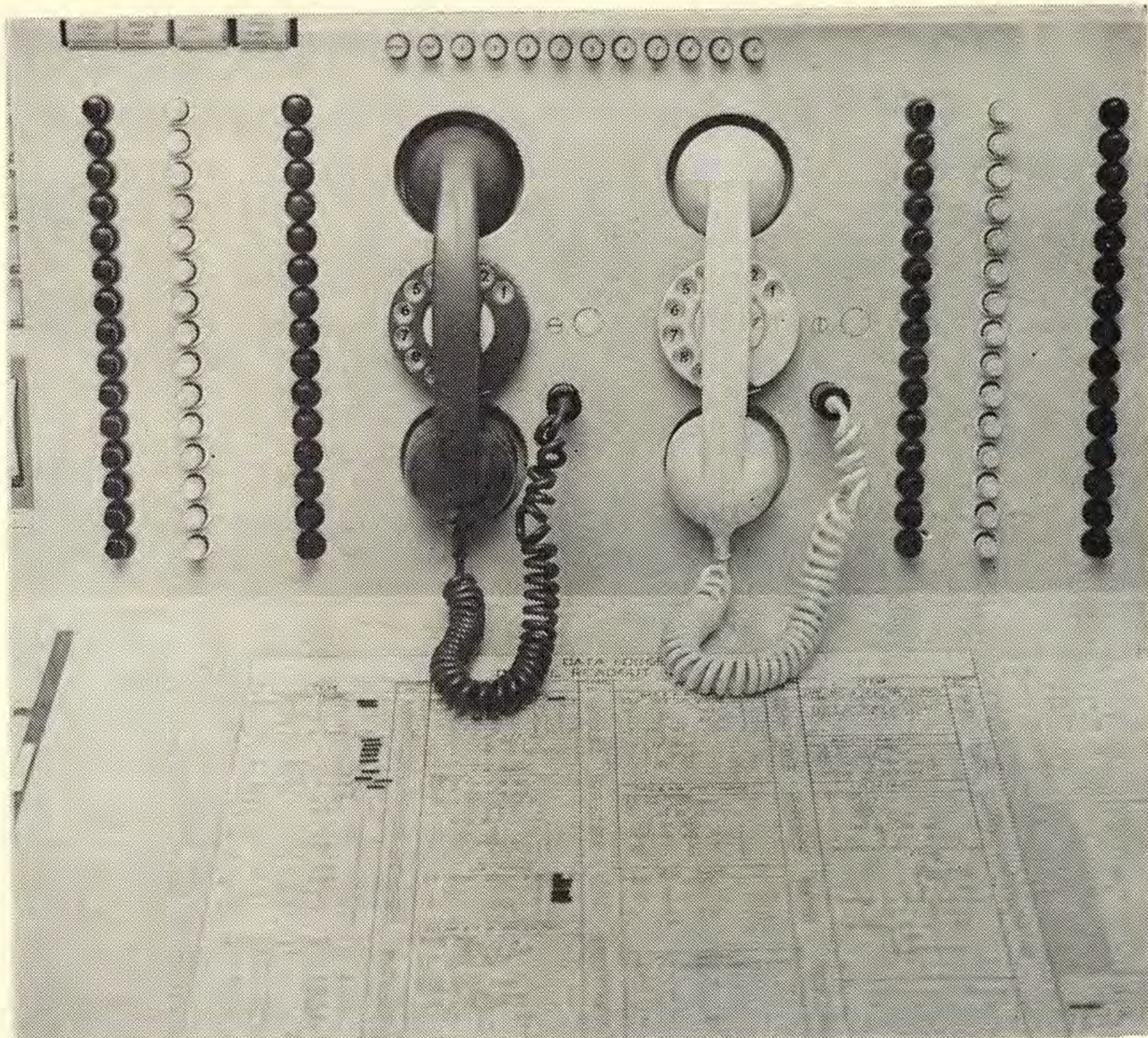


The pocket receiver gives out a two-tone call with different pulse cycle for ordinary and urgent calls.

appropriate receiver code number. An 'URGENT' call may be achieved by adding a zero digit. The called party accepts the call by locating the nearest dial telephone and dialling a fixed four digit number, within two minutes. The two telephone extensions are then automatically connected and conversation can take place for a period of 90 seconds following which the equipment is automatically disconnected.

If extra time is required arrangements must be made between the caller and the recipient to contact each other via the normal telephone system.

A similar paging system to that described above has been operating satisfactorily at Hazelwood Power Station for several years. With the added refinement of automatic telephone access at Yallourn 'W' Power Station, we are looking forward to many years of reliable and effective verbal communications.



Push-button controls of the system are located on each unit control console in the control room.

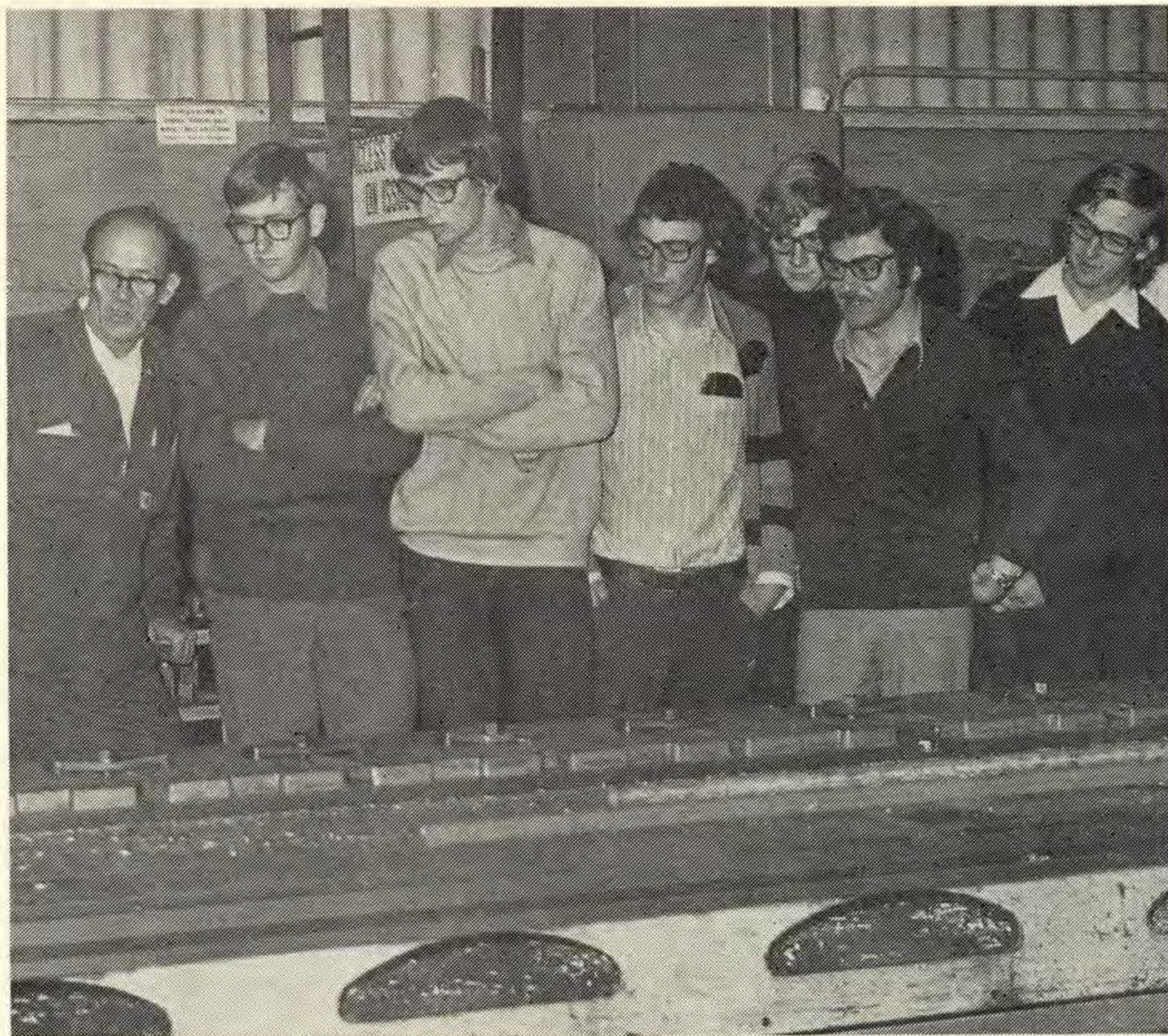
Technical Trainees See Works Area

Six Commission employees who are virtually unknown to the rest of the workforce of the Latrobe Valley Department recently attended a three-day Appreciation Course aimed at giving them some knowledge of the Department's operations.

These lads, recruited this year as Technical Trainees, are undertaking the first year of a Higher Technician Certificate Course on a full-time basis at the Yallourn Technical College. If successful at the end of the year they will be appointed to the staff of the Commission and will continue their traineeships, consisting of on-the-job training and part-time studies.

The Appreciation Course, managed by Robin Bavinton of Education and Training, provided the group with valuable information. Guest speakers representing all of the Engineering Divisions presented sessions covering many of the activities of the Department. In addition, appropriate tours of the Works Area were conducted.

All six lads indicated that the venture was most successful and we look



forward to their commencement on the job later this year.

Incorporated in the Services Division activities was a tour of the Central Workshops, Yallourn. A tradesman in the Machine Shop explains the operation of a large planing machine.

Left to right: First Class Machinist Jim Martin; Trainee Engineering Assistant Stephen Lucas; Trainee Draftsmen John Engel and Barry Smith; Trainee Engineering Assistants Don Stuckey, Michael Buhagiar and Neil Boden.

A WORLD OF WATER

by Geoff Mounter, Departmental Chemist

Standing watching the ice floes swirling at the foot of Niagara Falls as the water from a thousand Latrobe Rivers thunders down, one can't help thinking "that's a helluva lot of water."

Perhaps because most of my working life has been concerned with water, I became increasingly conscious of the relationship between man and water as Doug, George and I made our way around the world studying among other things the use and misuse of water in Power Stations.

Not all the water we saw was on the same scale as the Niagara Falls, but invariably the presence of water added interests to the scene.

We saw the headwaters of the Danube, followed the Rhine from Switzerland to Holland, strolled along the left bank of the Seine, viewed the Houses of Parliament across the Thames.

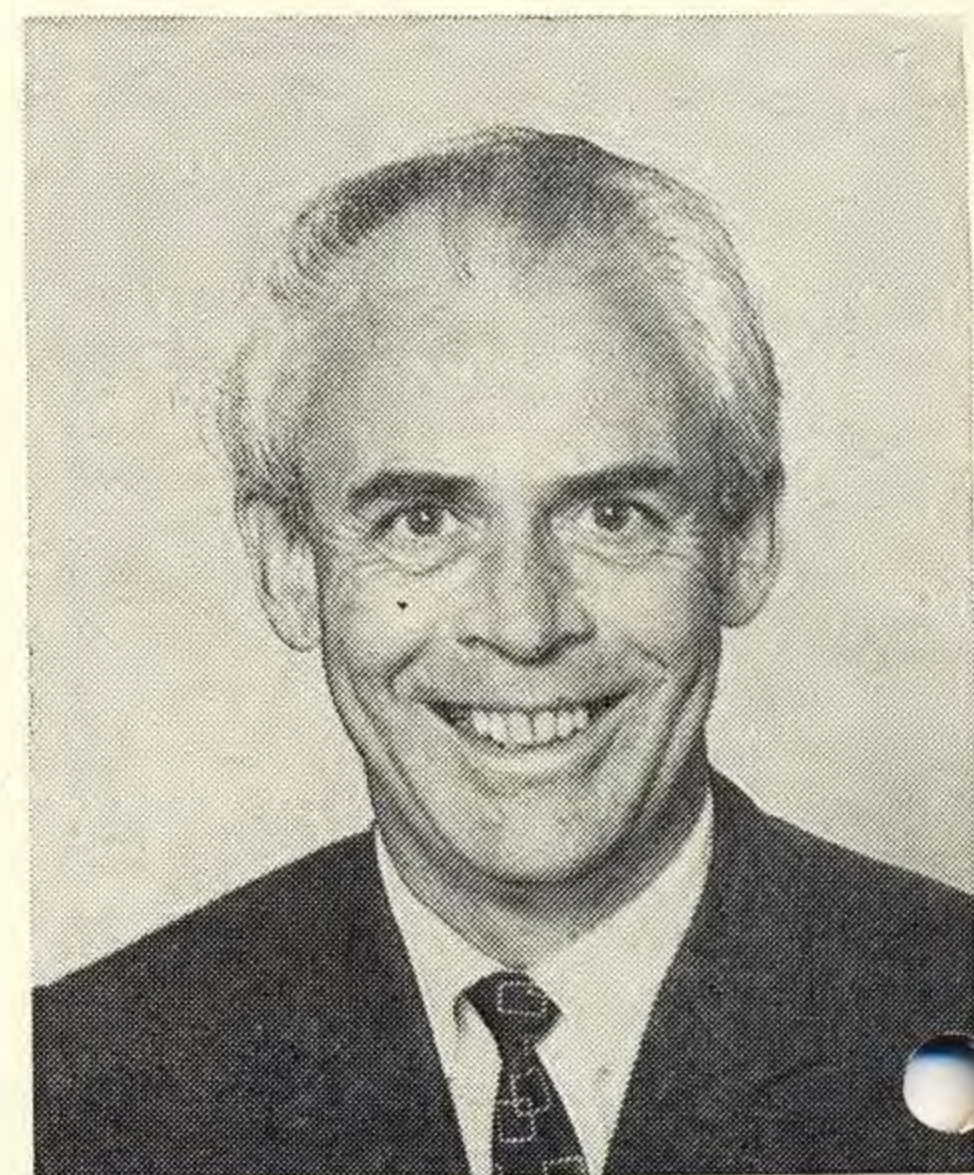
While the rivers were impressive because of their obvious use as convenient means of communication, particularly the Rhine with its unending stream of barges and the roads and rail tracks that run along its banks, it

was the lakes that provided a welcome relief from the bustle of the industrial world.

The Kochel Sea in the Bavarian Alps furnished inspiration for Goethe, Loch Katine in Scotland once moved Scott to write the Lady of the Lake and today is no less charming for being used as Glasgow's water supply. The Scottish Lochs of course, deserve a whole book to themselves, even a listing of their names can read like poetry; Loch Tummel and Loch Rannoch, Lochs Linnhe and Morar.

History becomes more vivid and believable when one has clambered over the ruins of Bruce's castle on the shores of Loch Fyne, or glimpsed the island in Loch Leven where Mary Queen of Scots was imprisoned.

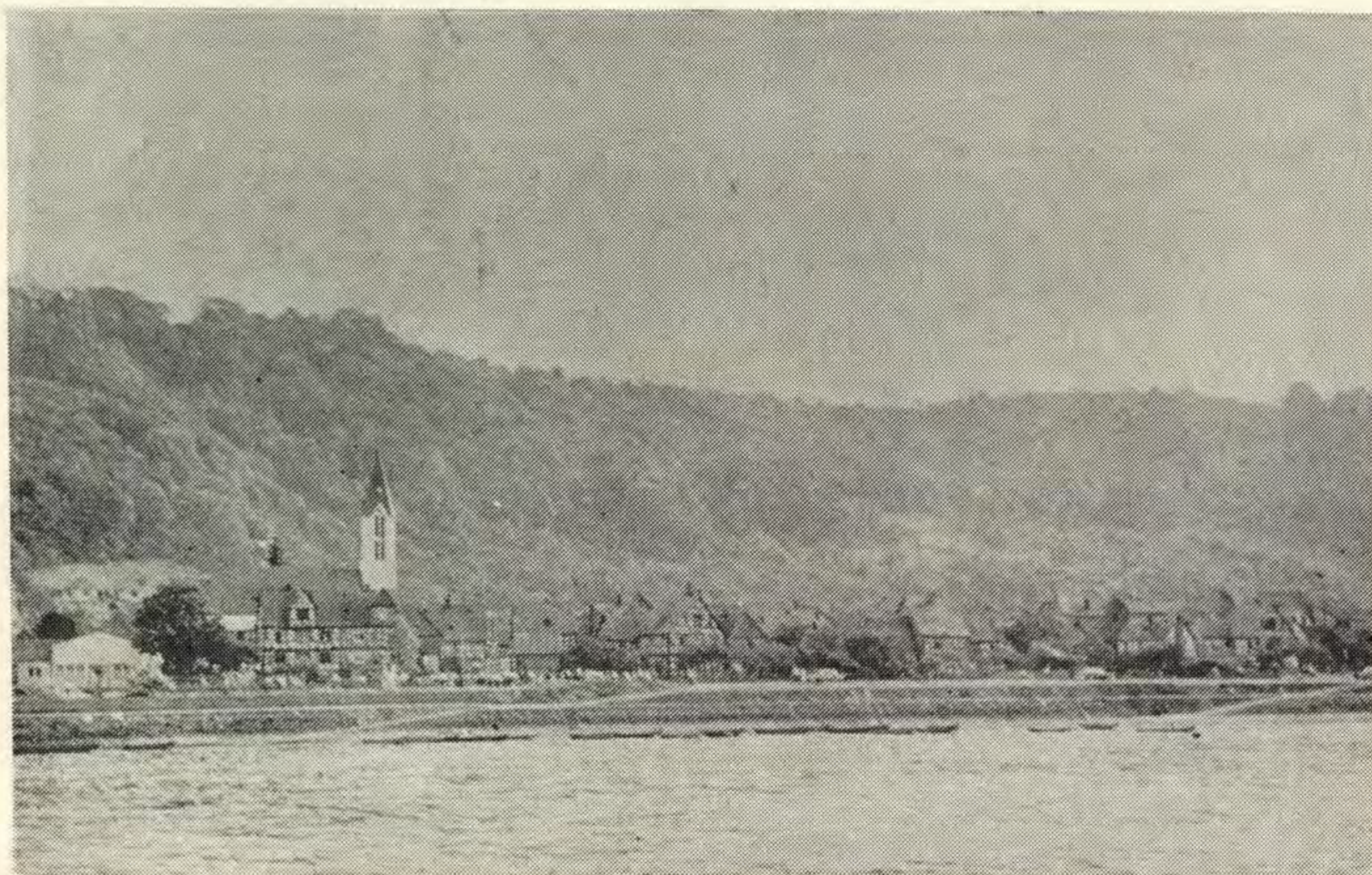
Man's history seems to be dominated by water. Paris started out as an easily defended island in the river Seine, the Rhine is studded with castles bearing witness to its importance from Roman times as a natural highway. London, Amsterdam, San Francisco, Sydney, Hong Kong and Glasgow—all are where they are because of their sheltered harbours.



From May until July this year, Geoff Mounter the Departmental Chemist, together with George Bonafede of Planning and Investigations Department and Doug Birchall of Power Department, visited America, European countries, including Russia, the U.K. and Japan to study Power Chemistry.

We didn't of course spend all our time gazing at rivers or contemplating lakes, but also were concerned with the more mundane properties of water. One common factor in all the countries we visited was the effort being made to reduce the impact of man's activities on the water available to him. On the whole the picture is encouraging. We saw many examples of steady progress being made to rectify past mistakes and abuses. One interesting example is the River Trent which provides cooling water for a number of Power Stations in the Midland Region of England. There the presence of the cooling towers has markedly improved the river by providing increased aeration, thus assisting in the removal of pollutants.

Those of you interested in fish, either in catching them or eating them, will be pleased to learn that the warm water discharged from many power stations often improves the yield of



A typical village on the River Rhine.

fish in discharge channels and oysters are plumper and more succulent.

Unfortunately by the time we arrived in England oysters were off the menu, but we were able to sample the local varieties in San Francisco and Nantes—they were edible but were not to be compared with the Sydney Rock Oysters.

This brings us the full circle back to Australia and a final thought about water. It may be possible to swim the English Channel, but not half way round the world. The isolation of Australia from Europe by twelve thousand miles of water led to its settlement in the first instance. It has also meant that we have been given a little time to profit from the experience of others.



The Golden Gate Bridge at San Francisco.

Ode to an S.E.C. Worker

*The Worker stood at the Pearly Gate
His face was scarred and old
He waited for the man of fate
To admit him to the fold
"What have you done," St. Peter said,
"To gain admittance here.."
"I was an S.E.C worker, Sir
For many and many a year."
The Pearly Gate swung open wide
St. Peter had pressed the bell,
"Come in and choose your harp,"
he said,
"You've had your share of hell."*

—ANON.

Lots of Air-Conditioned Comfort

A contract has been let for the supply and installation of 424 room air-conditioners for the Victoria Hotel, Melbourne.

This is believed to be the largest single order for room air-conditioners placed in Australia to date.

For Sale

27" MALVERN STAR RACING CYCLE, as new condition, price \$65. Including head and elbow guards. — Enquiries to Herb Trevenen, Yallourn Power Station, Ext. 2397, after hours Moe 1334.

Hazelwood Overcoming Design Problems

(Continued from Page 6)

returns; the advantages of increased availability are offset by the increased costs, of labour, materials and time.

The success of the modification programme so far may be judged by the fact that four of the 200 MW boiler-turbine-generator units achieved an availability of more than 80% during 1971-72. The percentage availabilities were:

Unit No. 5	86.2%
Unit No. 8	84.6%
Unit No. 4	82.8%
Unit No. 2	80.6%
Unit No. 7	63.4%
Unit No. 3	56.3%
Unit No. 1	45.2%
Unit No. 6	16.8%

The low availability of Units 1, 3 and 7 was due to a deliberate extension of overhaul and outage time

to facilitate carrying out major modifications. No. 6 Unit suffered from the effects of several errors in manufacture.

There are still major problems with turbine low pressure blading and discs to overcome; however, a large number of improvements in plant design and operating and maintenance procedures have been made and the immediate target of 75% availability should be achieved in the next year or so.

SAFETY SECTION

Motor Mower Season Is Here Again!

With the marvellous "grass-growing" weather we have been enjoying, the weekend air is again full of the roar of motor mowers and there is a continuing need to re-emphasize the importance of observing the safety precautions that apply to these potentially hazardous machines.

Some interesting facts are made in a Queensland Medical Journal following the interviewing of 100 consecutive motor mower accident victims in 1967.

WHO

- 86% were men;
- 90% were the mower operators;
- 62% were **not** wearing any form of protective clothing (shoes, trousers);
- 75% of victims **believed** that motor mowers were not hazardous;
- 7% were injured for the second time.

HOW

- 51% mowing on level ground;
- 33% of mowers concerned had guards removed;
- 24% of injuries were caused by thrown objects;
- 18% pulled the mower back onto their foot;
- 10% tripped while walking **backwards** and pulled the mower onto themselves;
- 10% mowing on sloping ground;
- 6% making adjustments with the motor running;
- 5% removing grass from the chute **with the mower running**;
- 5% blades flew off;
- 3% walked too close to the mower;
- 3% lifted the mower **while it was running**;
- 28% of victims had previously caused property damage (e.g., broken windows).

INJURIES

- 49% lacerations;
- 16% penetration wounds;
- 19% compound fractures;

- 11% amputations;
- 10% eyes;
- 9% severed tendons;
- 12% received permanent disability;
- 2.03 weeks, Average time lost from work.

The year following this article two people were killed in N.S.W. by flying blades.

Safety instructions relative to motor mowers have been stated many times and all know them, but perhaps a few quick reminders may jog some of our consciences:

- Routine maintenance is **ESSENTIAL** (especially blades);
- Guards, skirts, catchers or deflectors **MUST** be in position;
- Area must be cleared of possible missiles and targets (children, animals, etc.);
- Protection for feet and legs is essential;
- Push mower away from you;
- Mow a slope crosswise, not up and down;
- Have a full fuel tank. (No re-fuelling with hot engine);
- Stop the mower and remove spark plug lead before inspecting underneath, cleaning out chutes or lifting the mower.

You may think gardening is a pleasure or just a necessary evil, but remember, safe practices are as important off the job as they are on the job.

BATTERY EXPLOSION —FOLLOW-UP

Last month's issue of Contact carried an article describing an explosion of a car battery, followed by a recommended method of "jumping" two batteries together. One major hazard in this method and several minor points have been brought to the notice of the Safety Engineer. The major hazard is in step 3 which stated that both cables should be connected to the live battery. This could easily lead to a short circuit and possible explosion of the live battery, due to the remote ends of the two leads being clipped together, lying on one another, being accidentally knocked together when picked up or inadvertently using both ends of one lead. The following modified method is consequently recommended.

1. Remove the cell caps from both batteries to vent the trapped gas and leave them off during the jumping process.
2. Determine which terminal of each battery, i.e. the positive or negative, is connected to the engine block or chassis.
3. Connect the "floating" (or un-earthed) terminal of the flat battery to the correct terminal of the live battery (positive to positive or negative to negative).
4. Connect the remaining cable to the other terminal of the live battery and then to a convenient chassis or engine block location on the faulty car, which is away from the battery.

As an added precaution it is advisable to cover each battery with heavy material such as a piece of carpet, while connections are being made.

The procedure described is designed to prevent sparking near the battery terminals and to prevent damage to the alternator.

CONTACT LENSES

More and more people are switching to contact lenses in preference to conventional spectacles and hazards peculiar to their use are being recorded.

The following occurred at a large American Shipyard recently:

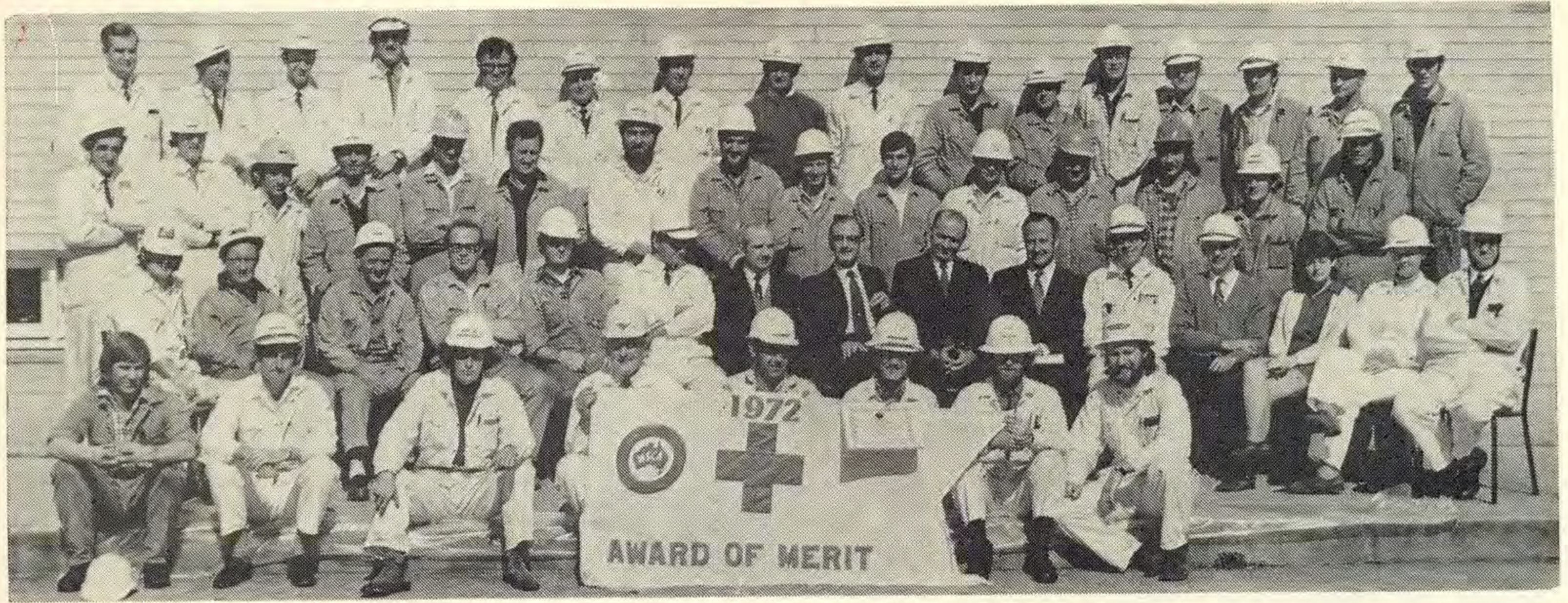
A workman wearing safety glasses over contact lenses opened a 440 volt box to connect a welding cable. When the circuit breaker was opened, an arc flash occurred. Later, when he at-

tempted to remove his contact lenses, large amounts of cornea came off with each lens.

Evidently the contact lenses served to concentrate the heat of the arc flash, damaging the cornea of the eye. Luckily, medical aid saved his eyesight.

Contact lenses should not be worn under safety glasses or in an area where arc flash could occur.

Safety Comes In Threes At Hazelwood



The Technical Services Section and the Electrical Maintenance Section of Hazelwood Power Station were awarded National Safety Council certificates and pennants on Wednesday, September 20, for achieving 100,000 man-hours without a Disabling Injury.

A.P.S.S. Bruce Johnston congratulated both sections and said that the large amount of time and effort put into safety training was paying off. He said that a special thank you was due to Safety Supervisor Ray Wilkinson.

Acting Power Engineer Allan

Crocket, who presented the certificates and pennants, said that the achieving of 100,000 manhours without a D.I. was especially meritorious as both sections were involved in work that took them into potentially hazardous areas of the Power Station. He added that he was looking forward to being present at the presentation of awards for achieving a quarter of a million manhours without a D.I.—if the same safety consciousness and application continued to be shown, this was a distinct possibility.

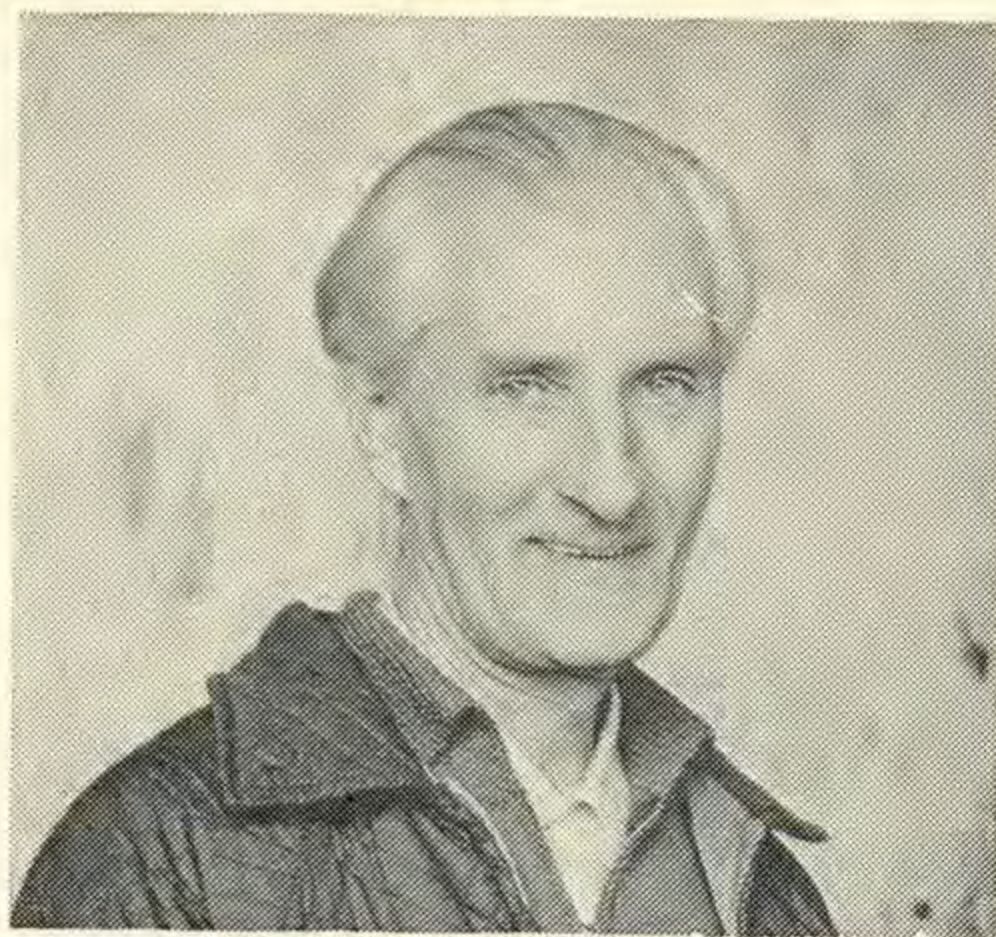
The third award was the presenta-

tion of the Trophy for the Most Improved Power Station Safety Record by Acting Manager Power Jack Robertson to P.S.S. Don Clark.

Morwell and Yallourn Power Stations had both won the Trophy twice, but this was the first time for Hazelwood.

Hazelwood won the Trophy by reducing their Frequency Rate from 39.4 to 26.2.

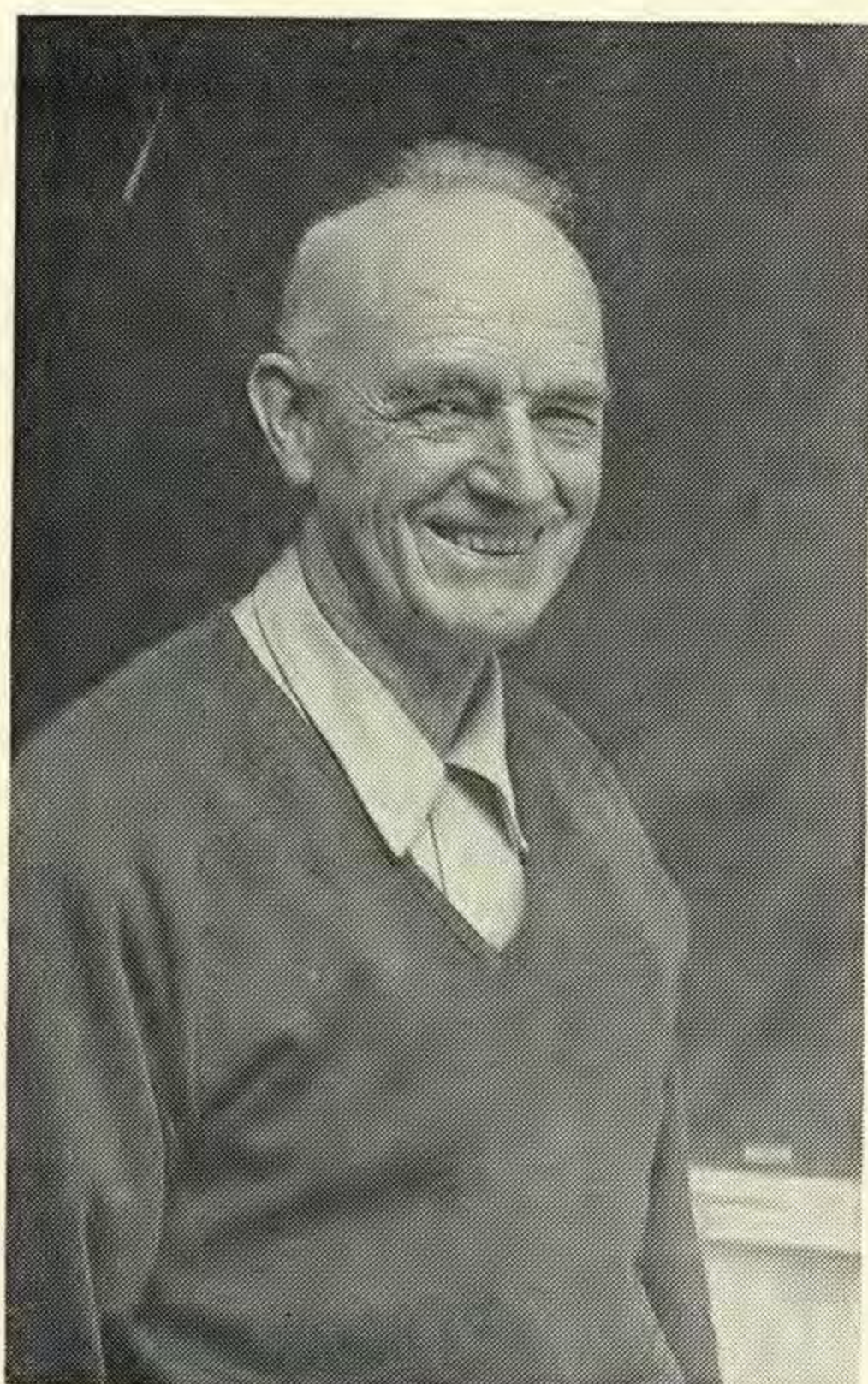
The photographs show top, Technical Services Section; middle, Electrical Maintenance Section; bottom, a group representing all the sections at Hazelwood.



Bill Mudie, a Trades Assistant with Services, retired on Thursday, August 24, after 13 years' service.

Bill was noted throughout the area for his mild and cheerful nature and his popularity was indicated by the number of friends who attended his farewell.

Bill will sail to his old home, Scotland, where he intends to spend his retirement. He was presented with a travelling rug and camera equipment.



George Butler, a Leading Hand Instrument Fitter at Morwell Workshops, retired on Tuesday, September 5, after 22 years' service.

Mechanical Services Engineer George Davis praised George Butler's work which he said had done much to keep rolling stock operating in the open cut.

George was a foundation member of the Works Area Social Club and was the first attendant at the canteen.

His workmates presented George with the office chair that he had sat on for so many years and hoped he would continue to use it during a long retirement.



L/H Electrician Special Class, Bert MacDonald, retired on Monday, September 4, after 20 years with the Commission.

Bert started work at Yallourn and was transferred to Morwell in 1959 where he was noted for his conscientious approach to any job and his ability to get on well with his workmates, a large number of whom gathered in the Morwell Training Centre to farewell him.

Like a true Scot, Bert said he regretted leaving the Commission, but he didn't intend to cry in his beer — it might weaken it.

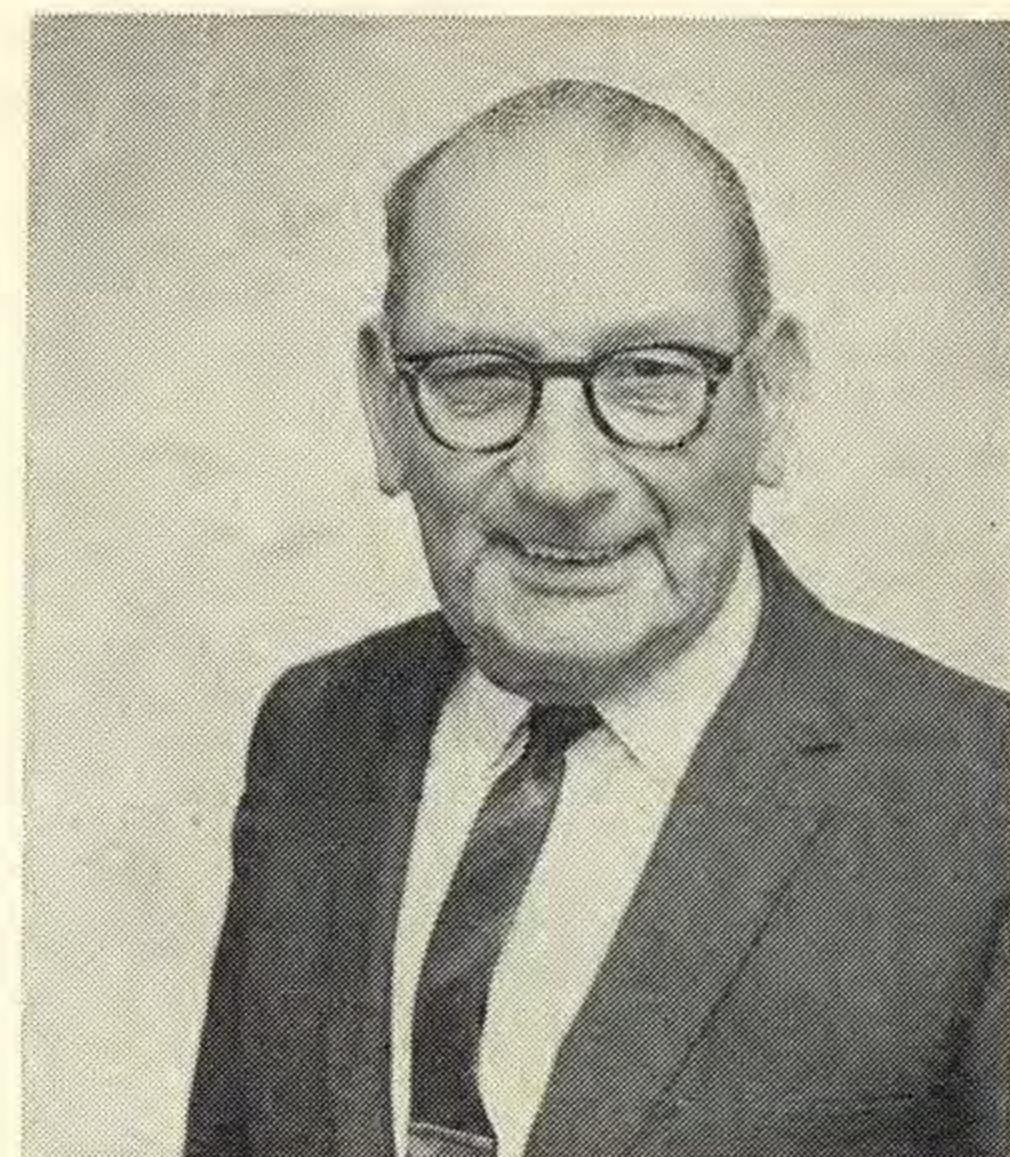
RETIREMENTS



Wally Bethune, a Storeman at Yallourn Power Station, retired on Monday, September 18, after ten years' service.

An ex-sharefarmer, Wally started as a cleaner, became a T.A. and then became a storeman in charge of the tool store.

Wally is well prepared for retirement and has lined up a part-time racecourse job for himself. His farewell gifts of binoculars and a wallet of notes should prove useful on the job.



Les Brown, an Office Cleaner at Yallourn, retired on Tuesday, September 5, after a period of service dating back to 1952.

Les worked as a taxi driver in Sydney before joining the A.I.F. and saw service in New Guinea & Borneo. He joined the Commission in 1952 as a T.A. Crane Driver, left to drive a taxi and rejoined in 1960. As a cleaner, he was responsible for the Visitors Centre, Yallourn, and Cleaning Services Officer Dave Poole said his energetic approach to the job had made a significant contribution to the Commission's public image.

Les will spend his retirement at Trafalgar, fishing with some of the gear that was presented to him, raising a few steers and making a potent home brew.



Bert, Mylrea, a Boilermaker at Yallourn Power Station, retired on Friday, August 25, after 20 years' service with the Commission.

Bert, who worked on farms for several years, still grows potatoes and keeps a few poddies. When he first started with the Commission he looked after the horses at Municipal Services.

Bert is a bit of a punter and has owned racehorses and won a few races with them. He promised not to bet the notes which he was presented on a loser.

Promoting Victoria in the U.S.

Mr. Bill Morrell, the New York representative of the Victoria Promotion Council, recently spent two days in the Latrobe Valley and, during this time, toured the Commission's works area.

The purpose of Mr. Morrell's visit was to formulate Victoria's promotional programme in North America for the next two to four years.

Mr. Morrell, who is head of a public relation counselling firm, was shown around the area by Departmental Engineer Bill Crossman.

In his capacity as Chairman of the Latrobe Valley Development Committee, Mr. Crossman said that, as a result of Mr. Morrell's visit, he now had a better understanding of the Victoria Promotion Council and its North American representation.

Our photograph shows Mr. Morrell (right) discussing some fossilised eucalyptus wood with Mr. Crossman at the Visitors' Centre, Yallourn.



SUGGESTION AWARDS, 1972

	Power		Coal		Services		Transmission		Commercial		Totals	
	No.	\$	No.	\$	No.	\$	No.	\$	No.	\$	No.	\$
January	6	165	—	—	3	40	—	—	—	—	9	205
February	22	620	—	—	4	175	2	30	—	—	28	825
March/April	9	215	—	—	—	—	—	—	—	—	9	215
May	9	460	—	—	1	500	3	535	—	—	13	1495
June	8	250	—	—	1	15	1	15	—	—	10	280
July	4	130	—	—	1	15	—	—	1	105	6	250
August	6	200	—	—	4	85	2	30	1	15	13	330
TOTALS	64	2040	—	—	14	830	8	610	2	120	88	3600
Approx. Average Awards	\$32		—		\$59		\$76		\$60		\$41	

SPORT PARADE

Commission's Barmaids Do Their Thing

Each Wednesday night, the Barmaids Volleyball Team plays in the Latrobe Valley Volleyball Association's (Women's Grade) competition.

The girls are fourth on the league ladder at present and are confident of being in the running for the premiership. Last year they finished fourth in the league, but got knocked out of the Finals. This year they hope to do better, and their Captain, Heather Hall,

thinks that more extensive training on Carlton Draught will pay off in the Finals.

The photographs show, top (from left to right), Sue Barnard, Timekeeping, Yallourn; Jenny Davis, Visitors' Centre, Yallourn; Linda Young, Typing Pool, Yallourn; Heather Hall, Administration, Morwell.

Bottom photograph shows the girls in action against the Purple Daisies, whom they beat three games to one.



ANNUAL FOOTY GRUDGE MATCH

The annual football grudge match between Costs and Bookkeeping and Personnel was played at Hernes Oak oval on Sunday, September 3.

Costs and Bookkeeping were first away and led by two points at quarter time. However, Personnel came back to be seven points in front at half time despite losing Bruce Hutchinson during the second quarter with a cartilage injury.

Coach Callinan pulled a "Kennedy" after half time and shifted play everywhere, but to no avail.

Spurred on by opposition coach Betts from the boundary, Personnel lifted their game and with more direct forward play ran to a handy lead at lemon time.

Although they strove desperately in the last term, Costs were unable to bridge the gap and eventually went down by 22 points.

Final scores were:

Personnel 8.10, 58 points

Costs and Bookkeeping 5.6, 36 points

Best Players:

Personnel—Mathison, P. Verberne, Johnston, Smith, Maxwell and Hutchinson (second half).

Costs—Howes, Gould, King, Pavey, Paul and Baldwin.

Goalkickers:

Personnel—Johnston (3), Mathison (2), Drewett, H. Verberne, Maxwell.

Costs—Peck (2), Haines (2), Guy.

S.E.C. - A.P.M. GOLF DAY

will be held at

TRARALGON GOLF CLUB

on

Saturday, Nov. 18

Entries will be received until
Friday, November 10

Contact **ROD DOIG**
Ext. 3425