



## Management Conference

# DISPROVING OUR CRITICS

## WOMAN LIB

## “take up arms”

FIGHTING for the Delamere Ward of the Crewe and Nantwich Borough Council, Joy Denise Bratherton, a clerk in the Customer Accounts section of our Mid-Cheshire District, was successful in gaining the seat for the Liberal Party.

In her victory, Joy became the first Crewe Liberal councillor since 1956.

She completely overwhelmed her Labour and Conservative opposition by gaining more votes than the combined total of the

## Sheffield Survivor

GLAD to be reunited with his family, teenager Paul Entwistle survived the attack on HMS Sheffield when it was hit by an Argentinian missile in the South Atlantic.

Navy man Paul was working as a weapons engineer mechanic in the radar section when the incident occurred.

His father, Ron Entwistle, is a craftsman electrician in our Oswestry District. Paul himself once worked for the Board on a temporary basis, when, for a few months, he was employed on appliance deliveries. It was shortly after this that he joined the Royal Navy.

Ron was with his wife, Glenys, watching the news on television when they heard that their son's ship had been attacked. A very long nine hours later they were told that he was safe.



Councillor Joy Bratherton

other two candidates. Joy polled 529 votes to win, with Labour in second place with 350 votes, and the Tories third with 161 votes. The seat was a gain for Labour.

Originally from the Midlands area, she came to Crewe three years ago, when her husband Ronald's work took him there. She joined the Board 2½ years ago.

This was Joy's first venture into representative politics, after her brother, a councillor in the Midlands, got her interested about five years ago.

**A CALL to all MANWEB staff to “rise to the challenge” of disproving allegations that all public industries were inefficient, run for their own benefit and not for the good of the customer, was made by Board Chairman Ben Hastings, when bringing this year's Management Conference to a close.**

The Chairman told Board managerial staff that significant progress was being made in dealing with many of our internal problem areas, but he added that “*the external political environment in which we operate is changing.*”

Mr. Hastings quoted extensively from an editorial article described by the Chairman as being “more objective and less hysterical than many others,” but which, nevertheless, made sweeping allegations of inefficiency, lax work practices and the protection of self-interest among public industries.

“Such criticisms have to be taken seriously, and have to be refuted if possible,” declared the Chairman. “Our main challenge for the year ahead must be to put ourselves in a position to demonstrate that allegations of public inefficiency do not apply to MANWEB.”

“Last year, we demonstrated substantial improvements in efficiency—especially in view of the fact that the working week was reduced by an hour,” he added. “Although I would not describe it as our biggest problem, there are still one or two ‘lax work

practices’ about. We have to get rid of them!”

Turning his attention to investigations by the Monopolies and Mergers Commission into various aspects of the electricity supply industry, Mr. Hastings stressed that much of our business was already carried out in a very competitive environment.

“Our heating market is highly competitive. Electrical contracting and appliance retailing are almost as competitive as it is possible to get. That is good for us. We badly need as much competition as we can get if we are to demonstrate that we are not just a total monopoly.”

“If we can compete profitably in these areas of business, we shall have

nothing to fear from the Monopolies—or any other—Commission. I am sure we can rebut any such criticism, and we should regard it as a challenge we can meet!”

The Chairman concluded with another quotation, this time from *Hamlet*, which poses the options of putting up with the “slings and arrows of outrageous fortune” or taking up arms against “a sea of troubles.”

“My message to you to you is simply this—let us be prepared to take up arms!” concluded Mr. Hastings.

The conference, held at Head Office, centres round the theme of “Organisation and Efficiency” and was opened by Deputy Chairman Richard Gales, who told his listeners that provisional figures for 1981/82 showed a very small increase in overall electricity sales, made possible by increasing demand from industry (led by chemicals and iron and steel) during the latter half of the year.

Our increased costs on salaries and materials and services were marginally below the increase in the Retail Prices Index—“a healthy trend”.

Over the year, there had been a net staff reduction of 221, achieved within the “no redundancy” Manpower Policy Statement guidelines.

A wide range of written questions was aired in *Open Forum* before the conference split into seven study groups, to discuss defined issues, all related to the improvement of organisation and efficiency. These topics included communication with staff, new technology, working practices and procedures, obstacles to improvement, devolution of duties to Districts, job satisfaction and the managerial performance evaluation.

Prior to the Chairman's conclusion of the day's work, each study group chairman presented a brief summary of the groups' conclusions. Written reports will be produced later.

## It's a gift!

**TWO charming ladies from our Installation section at Head Office, Doreen Bellis, left, and Jean Whittle, model the free shoulder bag which is being featured in the Board's promotion for re-wiring and intruder alarms.**

**For the very first time, members of the Board can now benefit with staff terms for installation work**



Survivor Paul Entwistle



Feature writer Carol James interviews Ron Thompson and Doris Holland, left for a story which appeared in the *Evening Leader* newspaper

Weighing in the sponsored slimmers nursing sister Dorothy Davis with Doris Holland taking notes. Top slimmer on the scales John Huntingford, who trimmed 32 lbs from his former 16 stones. Janie Dabrowska, from the Taylorplan restaurant staff, in white, lost a stone in weight as did Barbara McCormick (not pictured). On the left, George Harrison who shed 24 lbs and raised over £100.



# Staff appeal to beat Health Service cuts

A MANWEB staff appeal fund has been launched to counteract the effects of the Government's Health Service cuts on a member of the Board's staff. A substantial cut in the budget of the Liverpool Kidney Unit has meant a MANWEB employee will not get the home dialysis machine she had been promised.

Head Office typing supervisor Doris Holland had been undergoing treatment for a kidney disorder at the Liverpool Unit, and had been promised a machine at home should these vital organs fail. With many thousands slashed from their budget, the unit cannot keep the promise; they are giving preference to younger people.

Doris's disappointment galvanised her colleagues into action. The typing pool wanted to do something. Assistant pool supervisor Barbara Owens, engineering clerk Doreen Ryder, whose husband, Peter, had a home dialysis machine before having a kidney transplant, and 2nd engineer Ron Thompson, also with a personal knowledge of kidney disease, suggested raising money to buy a machine, and the MANWEB staff appeal fund for the Liverpool Kidney Unit was launched.

Ironically, Doris, the subject of the appeal, has herself raised many thousands for charity. She

works hard on behalf of the Leukaemia Research Fund and in the office has been instrumental with her pool of typists in raising money for other charities; only last Christmas they raised £400 for the Mayor of Chester's Appeal, and this has been an annual event by the typists during Doris's 12 years at Chester.

Without a home dialysis unit it will mean that as her condition deteriorates Doris will have to give up her job several years before she is due to retire, in order to travel to the hospital for treatment as many as three times a week. In addition, it could mean husband Frank, a 2nd engineer in the Head Office Technical Section, leaving his job to look after her.

The treasurer of the appeal fund, Ron Thompson, told CONTACT: "All the money raised will eventually go to the Liverpool Kidney Unit to ensure that they have sufficient resources to supply Doris with a

kidney machine when she needs it. We opened the fund a few weeks ago and, to date, I have taken £400 cash for the appeal.

"At Head Office we are planning several events. The Duke of Westminster has graciously consented to the use of the Long Room at Eaton Hall for a wine

and cheese party to raise cash. The MANWEB Golf Society are running a golf ball competition in all their tournaments and the proceeds will go to the fund. We have just had a sponsored slim and one slightly rotund gentleman says that he was on the promise of £100 if he loses a

stone in weight, and he did. We would welcome any help from our colleagues in the Districts in raising cash for the appeal." Anyone wishing to organise events or contribute to the fund should contact Ron Thompson on Head Office internal telephone 2439.

## The Heat Pump and Air Conditioning Bureau at HEVAC

**THE Heat Pump and Air Conditioning Bureau had its own stand for the first time at the HEVAC Exhibition held in Birmingham last month. Sponsored by The Electricity Council, the Bureau provides comprehensive advice and information to users and specifiers of heat pumps and air conditioning equipment.**

Formation of the Bureau was prompted by the growing concern that, with the rapid development of the heat pump market, misleading or biased information might inadvertently be presented to the user or specifier of this type of equipment. This concern was especially felt by the established trade

organisations, such as the Heating, Ventilating and Air Conditioning Manufacturers' Association, the Heating and Ventilation Contractors' Association and the British Refrigeration and Air Conditioning Association, who backed the formation of the Bureau in its present form.

The Heat Pump and Air Conditioning Bureau also calls upon the extensive resources of the electricity supply industry's research and technical facilities. The stand featured aspects of this research and field experience gained in the application of heat pumps, as well as providing the Bureau's full information and advice service.

### Domestic heat pumps

THE result of the Heat Pump Field Trials in domestic premises was discussed at the recent Chief Commercial Officers' Conference held at The Electricity Council in London.

It was agreed that from both technical and marketing standpoints we should adopt a passive approach to the promotional aspect of domestic development for the time being.

The use of heat pumps in the domestic market was still in the early stages of evolution and it was felt that, in the overall interests of our industry, off-peak space heating should still be our first aim, using water storage systems and the new slimline storage heaters.

However, it was noted that, should significant technical progress be made, we should immediately review our marketing policy.

Work commenced on the Field Trials in mid-1979, with the selection of suitable equipment from seven manufacturers being installed in premises on selected sites around the country.

Of the 31 installations metered, 26 were designed by The Electricity Council staff.

### Long Service

WE offer our congratulations to the following members of our staff who have completed, during the month of May, 40, 30 or 20 years' service in the electricity supply industry.

**40 YEARS**—Liverpool District: **Edgar Payne** (craftsman, electrician). Mid-Cheshire District: **Norman Fell** (Production Engineer).

**30 YEARS**—Dee Valley District: **Robert Parry** (craftsman, electrician). Clwyd District: **Leonard Jones** (craftsman, overhead lines).

**20 YEARS**—North Mersey District: **Derrick Allan** (craft attendant), **Derek R. Harper**

and **Neil Morris** (meter attendants). Mid-Mersey District: **Michael Joyce** (craftsman, jointing). Dee Valley District: **Terry M. Shone** (chargehand craftsman, overhead lines). North Wirral District: **Edgar J. Morgan** (meter attendant). Mid-Cheshire District: **Ronald Hayes** (chargehand, general duties assistant). Gwynedd District: **Evan Wyn Jones** (craftsman, overhead lines). Oswestry District: **C. Eddie Newns** (draughtsman).

## Board Report

### ENGINEERING SCHEMES

PLANS to improve and extend MANWEB distribution system at a cost of more than £2,200,000 were approved at the May meeting of the Board.

Major projects approved included the replacement of a faulty section of the Rainhill-St. Helens 132-kV oil-filled cable; an increase in transformer capacity for British Rail at Crewe; the replacement of obsolete 132-kV inter-tripping equipment; the modification of a further 300 oil circuit-breakers, to bring them up to modern standards; provision of supply to part of Liverpool South Docks, being reclaimed for development by the Merseyside Development Corporation; and extensions to the high- and low-voltage networks at Deeside Industrial Park, Shotwick.

### IMPROVEMENT MAINTAINED

ELECTRICITY sales to industry in March were 10.7 per cent up on the figure for March of last year—bringing total industrial sales for the financial year to within a whisker (0.6 per cent) of the 1980/81 total.

During the month, there were good sales increases in the following fields: mining and quarrying; cement, bricks and pottery; chemicals; and metallurgical industries. Still in the doldrums were the glass, textiles and building industries.

### SHOP SUCCESS

DESPITE a disappointing result in March (down by 17.8 per cent compared with March last year), total appliance sales from Board shops during the financial year April to March were up by 7.2 per cent (about 2.3 per cent in real terms) compared with the 1980/81 figure.

All Districts have recorded increases, with especially good results from Mid-Mersey, Dee Valley, Oswestry and Aberystwyth.

Split-level and micro-wave cookers, fridge-freezers, washing-machines and storage radiators all sold in greater numbers during the year, giving rise to the overall improvement. An item seen to be gaining in popularity is the fridge-freezer, at the expense of the freezer on its own.

### Appointed

FORMER linesman at our Mold depot, E. Emlyn James, has been appointed as a member of the Governing Body of Llysfari College of Agriculture at Ruthin.

Emlyn is also a member of the Clwyd Family Practitioner Committee and is Chairman and Vice-Chairman of a number of its sub-committees.

He retired from his work with the Board in 1972.

## Our Industry's History

A SIMPLE technical history of electricity supply from the first crucial scientific discoveries and experimental lighting schemes to the nuclear age has been published by the Electricity Council.

"Electricity Supply in the United Kingdom" is a new, revised edition of a chronology of public electricity supply in Britain and contains many additional facts and dates together with a number of historical illustrations. The A4-size, 140-page publication also chronicles the principal electricity legislation and the numerous official committees of enquiry that have affected the industry's operations, structure and relations with Government. Many of the outstanding developments abroad are also included.

Libraries and bona fide scholars can obtain single copies of the history at no charge by writing to the Intelligence Section, Electricity Council, 30 Millbank, London SW1P 4RD.



David Mellor (Customer Service Manager), left, presents a Medallion Award Certificate to Mr. H. Dekker, Director of Acrepace Builders. On the right Ron Carter (Load Development Engineer).

# MEDALLION AND CIVIC AWARDS AT CLWYD

TWO ceremonies held in our Clwyd District in recent weeks heralded housing schemes by a private builder and a local authority successful in gaining Medallion Home and Civic Shield Awards.

Acrepace Builders were well justified in collecting their Medallion Home Award for their planned development of 24 flats and three bungalows at Plastirion Park, Towyn.

The specifications of these homes are even higher than those demanded for the Medallion Award. In addition to total insulation to walls and ceilings and double-glazing throughout, each home is equipped with three storage radiators, two panel heaters (one in each bedroom), heated towel rail in the bathroom and a 40-gallon water

cylinder fitted with dual immersion heaters.

By opting for the Economy 7 tariff, it is estimated that the annual cost for space and water heating will be about £250.

The whole project at Plastirion Park is thoughtfully designed and the beautiful and well-built homes have many luxury extras included in the price—which starts at under £20,000.

\* \* \*

Rhuddlan Borough Council's new extension to their sheltered

housing scheme for elderly people at Prestatyn has qualified for the Electricity Council's Civic Shield Award.

The six two-storey flats are built to specified design standards for minimum energy homes. Cavity wall and roof space is well insulated and there is double-glazing in the bedrooms and living-room. Space heating is by electric storage radiators and hot water is provided via twin immersion heaters in a 40-gallon cylinder, proving very economical to run on our Economy 7 tariff.

Another presentation — This time David Mellor presents a Civic Shield Award to Councillor Cyril Roberts, Chairman of Rhuddlan Borough Council



## Low-energy homes

COUNCILLOR Norman Ellis, Oswestry Borough Mayor, received the Electricity Council's Civic Shield Award from Ron Williams (Oswestry District Manager) at a ceremony held recently for the official opening of the development of 32 new Council flats at Brookfields, Weston Rhyn.

All storage heating (Creda) and water heating will benefit from Economy 7 cheap-rate electricity. Cavity wall and roof insulation is up to Civic Shield standard.

It is estimated that the cost of storage and water heating for these low-energy homes will work out at approximately £4.60 a week for the ground floor flats and £5.20 a week for the upper floor flats which have extra heating installed.

The acceptance of this first Civic Shield Award by Oswestry Borough was one of the last mayoral duties carried out by Councillor Ellis.



Colin Nuttall's opportunist picture shows a police officer and fireman silhouetted against the burning pole at Frodsham

## Men of Action

WHILE visiting his son's home in Frodsham, Frank Nuttall, an Engineering foreman based at Runcorn, was startled by a loud explosion outside, followed by ominous crackling noises. The lights in the house flickered for a while. Instinct and experience took Frank to the window, where he saw a bright glow lighting up the sky.

Realising that it was local, he immediately set off to investigate, with his son Colin following closely behind, armed with his Olympus Trip camera. Arriving at the source of the light—Ellis Lane, Frodsham—they saw that one of our wooden poles, with a 300-amp low-voltage cable running down its side, was on fire.

Grasping the opportunity, like all good cameramen, Colin quickly snapped the startling picture reproduced here.

Larry Pickering (2nd engineer—Production) from Mid-Mersey District, who lives near Frodsham, also had the warning of flickering lights at his home. He too knew that something was wrong. He telephoned the District Reporting Centre, only to be told that the standby engineer was out on another fault.

Larry set off to discover what was causing the trouble. Arriving at the scene, he immediately went to the local sub-station to make the circuit "safe", ena-

bling the firemen to tackle the blaze.

"The pole was like a huge Roman candle," commented Larry. "Sparks were flying everywhere!"

All evidence of the likely cause of the fire disappeared in the ashes.

### Lawmen

SECRETARY of the recently inaugurated Chester and North Wales Branch of the Institute of Legal Executives is Fred Owen, a principal assistant in our Legal section at Head Office.

Another member of our staff, David Brayshaw (assistant Solicitor), is a branch committee member.

Both have previously served on the local sub-committee of the Institute, under the direction of the Liverpool Branch. Now there are sufficient members and support to justify a separate branch at Chester.

## Demise of two giants

INSTALLED over half a century ago, for the former Birkenhead Corporation Electricity Department at their Craven Street power station, two massive 10-MVA transformers have now come to the end of their useful days and have been removed from their bays.

These two mighty metal giants were installed for the establishment of the 6.6-kV network in the Birkenhead town area and heralded the start of the A.C. development.

Generation from the Craven Street station began before the turn of the century and, in 1899, the plant was capable of 300 kilowatts an hour.

The two transformers, manufactured by the English Electric Company, have now been sold for their scrap value.



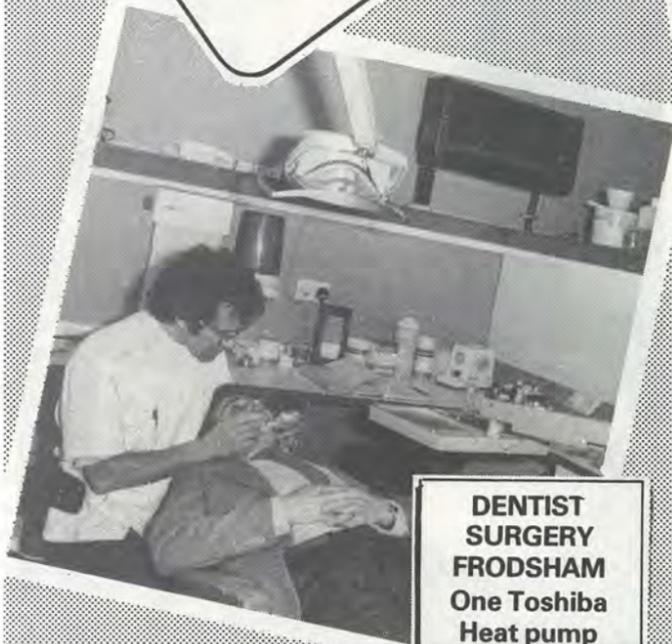
The first of the heavyweight transformers being winched on to the low-loader after having the oil coolers removed



**OUR OWN SHOP IN HIGH STREET, RHYL with five Myson Heat Pumps**



**BODELWYDDEN HOSPITAL Myson Heat Pump—one of many throughout the building—in a Sterilizing Room**



**DENTIST SURGERY FRODSHAM One Toshiba Heat pump**

# FREE HEAT

— with a dual purpose system

**COMMERCIAL and industrial customers throughout the Board's area are accepting the promise of "free heat" with the installation of energy-saving heat pumps in their premises.**

Not so many years ago, the more advanced countries took energy supplies for granted. Fuel seemed to be plentiful. It was cheap and it was wasted. Today, we have a different outlook. Worldwide energy supplies are being used up at an alarming rate. One would think that there was no tomorrow. Strict conservation of what we have has become necessary, and research into possible new energy forms most urgent.

The development of the heat pump has been accelerated by this priority need to protect our dwindling energy resources. It also has the unique advantage of actually producing more energy than it consumes.

The heat pump is a technical and timely breakthrough for a combined cooling and heating system.

It would be over-simplification to say that the heat pump system is a refrigeration circuit which can also operate in reverse. However, if you place your hand above the back section of a domestic refrigerator or deep-freeze unit, you will feel an appreciable amount of warm air being given off. This "waste heat" is fully utilised in the heat pump system.

To provide air-conditioning, the heat pump loosely works on the refrigeration principle of transferring heat from inside to outside. Where conditions are "ice cold" in the case of a refrigerator, it becomes "comfortably cool" when used in business premises as the amount of warm air extracted is controlled.

When warmth is required inside the factory, office or shop, the heat pump system goes into reverse. It takes heat from the outside air and transfers it, through the unit, into the premises. It is interesting to know that even when temperatures fall below freezing, it is still possible to extract some heat from the atmosphere.

*This "free heat" can often offset the running costs of the cooling system in warmer weather.*

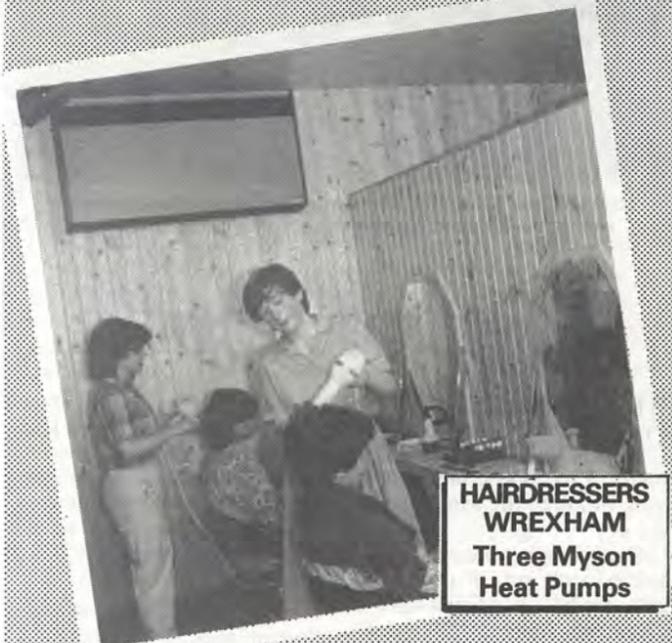
Where necessary, supplementary heating elements are fitted to boost output in abnormal conditions. Energy savings on heating can be up to 40 per cent.

Units can be installed almost anywhere and they take up very little space.

The capital cost of installing a heat pump system is only about ten per cent greater than putting in air conditioning plant plus direct action electric heating.

With the average temperatures, especially during the spring and autumn, a heat pump system will give between two and three kilowatts of heat for every one kilowatt of electricity it uses.

*"Free heat" is certainly a promise we can keep.*



**HAIRDRESSERS WREXHAM Three Myson Heat Pumps**



**THE HOLT LODGE INN WREXHAM Three Myson Heat Pumps**



**NORTH WALES NEWSPAPERS OSWESTRY Three Myson Heat Pumps**



**THE PICTURES AROUND THIS FEATURE ARE EXAMPLES OF PREMISES WHICH ARE BENEFITTING FROM THE INSTALLATION OF ENERGY-SAVING HEAT PUMP AIR CONDITIONERS**

## DEFENCE in depth: that sums up the nuclear safety policy of the Central Electricity Generating Board.

It is a "safeguard" policy that begins long before a nuclear station is even built. And it continues through the design, construction, commissioning and operating stages of the station until the end of its service life.

Four main lines of "defence" are built around the Board's operations.

**First,** They are well within international regulations and stringently controlled by independent safety experts and the Generating Boards own procedures.

**Second,** nuclear stations are designed and constructed to high standards, and operated by highly-trained staff.

**Third,** they are equipped with protective instrumentation and controls which are duplicated where necessary to ensure that each nuclear reactor is brought automatically to a safe condition in the event of a fault.

**Fourth,** an examination is made of a whole range of extreme accidents or unlikely faults and additional safeguards are installed if required. These can be an emergency cooling system, for example. They would be used only in the unlikely event of the other measures giving insufficient protection.

Together, these defences form a "chain" of safety that has been proved by 19 years of safe nuclear operation in the UK by the CEGB.

The Government's Nuclear Installations Inspectorate (NII) acts as "watchdog" over the Board's nuclear activities. Under the 1965 Nuclear Installations Act, the NII is responsible for issuing site licences, with conditions covering anything concerning its safe working. It also carries out independent safety assessments of designs.

The remaining links in the chain are formed by the Board's statutory responsibility for the safe operation of its nuclear plant, its staff and its own safety procedures. The Board's Health and Safety Department operates independently of all other departments, and is responsible for ensuring that there is adequate provision for safety at nuclear stations.

The immediate authority for operating a station safely rests with its manager and his staff. They have to conform to operating and radiological safety rules. These cannot be altered without the sanction of a safety committee and the NII.

About one in ten of all the staff at a nuclear station are employed on safety matters—devoting up to 100,000 man-hours a year to safety at each plant.

A very important part of their work is to undertake a continuous programme of environmental monitoring.

Measurements of radioactivity are taken up to 25 miles from the power stations. In these surveys, samples are taken for analysis of drinking water, milk, grass, soil and—for coastal sites—fish, sea-water and silt. Samples are also taken of atmospheric radioactivity.

**As stressed in an earlier article in the series, these surveys confirm that the CEGB's nuclear operations have a negligible—if any—effect on the local environment: the amount of radiation that the public receives from nuclear power stations is, in fact, insignificant compared with the amount they receive from natural background sources.**

The survey results are reported to the Department of the Environment and the Ministry of Agriculture, Fisheries and Food, which also carry out their own independent surveys.

Each station also has its own liaison committee, which forms a "bridge" between its staff and the local community, whose representatives are encouraged to raise safety issues and other matters of local concern with CEGB staff.

In addition to the Board's policy of defence in depth, all nuclear stations have emergency plans agreed with the Nuclear Installations Inspectorate and with the police.

From the local authority standpoint, these are similar to the existing arrangements for dealing with floods, fires and other emergencies, and these basic emergency plans are available in town halls and libraries. Each year emergency exercises must be held for the NII.

Detailed analysis has shown that any risk to the public from a nuclear power station is exceedingly low—particularly when compared with the everyday risks to which people are exposed.

The Board's chain of safety does not stop at the



Safety measures at nuclear power stations include regular radiation monitoring. Here we see a gamma dose meter being used to check the grounds around the station

# NUCLEAR SAFETY AND THE CEGB

This is the last in a series of six articles by Sam Goddard (CEGB)

nuclear station gate. It is just as rigorously applied to the transport of irradiated nuclear fuel to Windscale, where it is reprocessed to provide a valuable fuel for the future.

After the spent fuel is removed from the reactor, it

**More monitoring, this time with tacky shade collectors positioned up to ¾-mile around the station to pick up airborne particles. The tacky gauze-like material is periodically collected and tested**



is stored in cooling ponds to enable the high intensity radiation to die down before it is moved. Because it is still radioactive, the fuel is transported in massive steel flasks weighing 50 tons—as much as a Centurion tank.

The flasks are designed and tested in accordance with the standards laid down by the International Atomic Energy Agency, and are approved by the Department of Transport. The regulations require drop tests on to a solid unyielding steel and concrete base, which equate to the conditions that would occur in a severe accident. The flasks are also required to survive being engulfed in a petrochemical fire.

No accidents involving the release of radioactivity have occurred in more than 6,000 journeys over 3.5 million rail miles of irradiated nuclear fuel since the first consignment in 1962. Nevertheless, the Board operates a contingency plan, in which a team of experts would attend any accident involving a flask, no matter how minor, to carry out safety checks. And again, there are emergency plans which would be implemented in the event of an accident.

After reprocessing of the irradiated fuel at British Nuclear Fuels' Windscale plant, the highly-active fission products are stored as liquids in stainless steel tanks, with secondary containment, and installed in concrete cells. Although this has proved satisfactory in the UK for over 20 years, an improved process now being developed will concentrate and convert the waste into "glass blocks" sealed inside steel cylinders.

Work is continuing, both nationally and internationally, on the best method of disposing of solidified waste ultimately. Possibilities being studied include the disposal of waste in geologically-stable formations, such as salt downs or granite structures, or burial in deep ocean trenches. But as it is most sensible to continue to store it on the surface for many years, there is no immediate need for a decision to be made at present on the best disposal solution.

**It is probably true to say that no other industry commits such a wealth of time, expertise and resources to the supervision of safety than that devoted by the nuclear industry. The CEGB will continue to give top priority to maintaining the highest possible safety standards—standards which have ensured a safe and economic means of producing electricity from nuclear plant for almost two decades.**

As Sir Alan Cottrell, former Chief Scientific Adviser to the Government, commented in his recent book on nuclear energy: "The safety record of the nuclear industry has been almost immaculate".



PLASTIC EXTRUSION COMPANY JOHNSTOWN Two Toshiba Heat Pumps



LADIES FASHION SHOP CHESTER One Myson Heat Pump



Above, Ray Morgan and Debbie Jones unload the 'Telelift' cars at the Mailing room terminal. On the twin track looping away in the background more cars wait their turn to come in to be emptied. Inset left, Karen Hunt loads a car to send on the 1/4 mile track to one of the five other terminals. Cars arrive at the fourth floor registry, above centre, and are unloaded by Caroline Buckley and Helen Gocher. Whilst on the second floor, top right, Jean Cannon and Carol Parry load a car for the mailing room.

## Chester mail goes by 'Monorail' —new conveying system

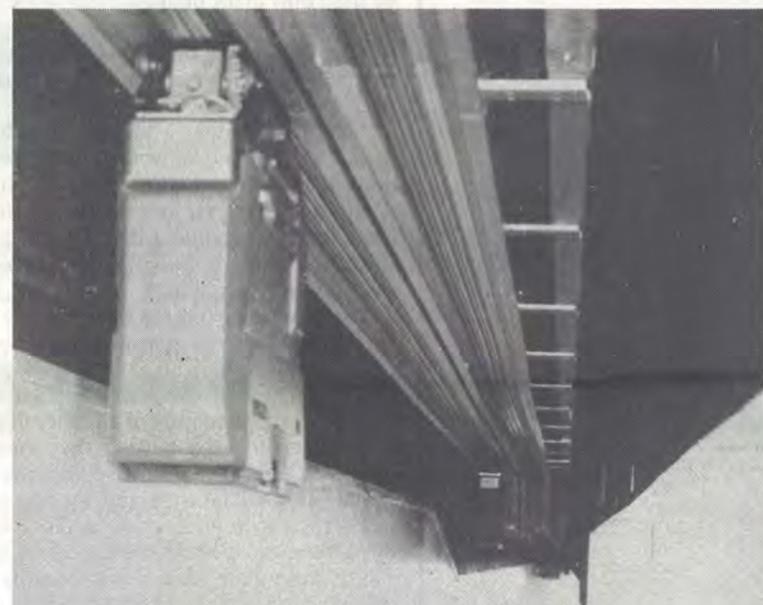
A NEW mail-conveying system has been installed at Head office. It currently services six terminals around the building and is shortly to be extended into the cash office and the computer section.

The complete system has been installed by Telelift (U.K.) Limited.

Telelift is a fully automatic conveyor system. Self-propelled containers travel along a track which can be installed either horizontally or vertically. The track, consisting of straight or curved sections, is assembled in building-block style. The container transports its contents in any direction and travels to any desired station within the network.

Two contact rails within the track supply the container with power at 24 volts D.C. For horizontal travel, propulsion is achieved by means of a friction wheel, while, for vertical travel, a gear wheel engages in a rack.

After programming the container by setting a combination of slides, it reaches its destination fully automatically. Any number of containers can be in operation at the same time, travelling to a variety of stations. Switches route the container fully automatically. Horizontal speed is approximately 0.6 metres per second, vertical speed approximately 0.5 metres per second.



Right, a 'Telelift' car travels steadily overhead along the basement corridor while below it registry clerks Debbie Jones and Lesley Clayton use 'Shanks pony' to deliver mail to a location not yet on the system. Below, a 'Telelift' car.



## Electricity helps the Grower

"ELECTRICITY in Horticulture," published by The Electricity Council in its series of Grow-Electric handbooks, provides commercial growers with the information necessary to increase their efficiency and enable them to withstand the competition they are currently facing from imports both in price and quality.

Detailed information is provided on electric controls which can now provide a precise climate for growing, and ensure that heating, ventilation, carbon dioxide enrichment and irrigation are always used at the most advantageous levels. Automatic control of these systems saves labour and makes five-day-a-week working possible, without any loss in operating efficiency. The cost of such precision control is normally offset by savings, particularly in fuel for space heating.

After harvesting, vacuum coolers can remove field heat from produce before it is moved to the cool store, which can now have ice-bank chillers, using reduced price off-peak electricity. Preparation for market, which includes grading and packing, stapling and heat-sealing, are electric techniques explained clearly. The book usefully illustrates briefly the many ways in which electricity helps growers. Applications and appropriate references are given for further reading.

"Electricity in Horticulture" A4, 74pp, illustrated, is published by The Electricity Council, and is available, free of charge, to commercial horticulturalists and students, from the Farm-Electric Centre, National Agricultural Centre, Stoneleigh, Warwickshire.

## WASHING MACHINES SAVE CASH

EIGHT out of ten homes in the United Kingdom now have a washing machine, compared with four out of ten in 1960. This high ownership level has been achieved despite the growth of launderettes and the development of easy-to-wash fabrics and modern wash powders.

Speaking in London recently, Jenny Webb, the Electricity Council's Home Economist, said the current price of using a launderette to wash and dry a 9 lb. load of clothes is about £1. The average family could easily spend £3 a week at a launderette and, taking into account the running costs and even a maintenance contract, a popular British-made, BEAB-approved,

single-tub automatic washing machine could pay for itself within three years.

Monday was no longer wash-day, the convenience of the plumbed in automatic machines enabling the washing to be done on any day of the week. Indeed, many housewives on the Economy 7 tariff now did their washing at night—while they were in bed asleep.

## OBITUARY

WE regret to record the death of the following colleagues:—

**Mr. William Bevan**, aged 77, a former labourer with the excavation gang in North Wirral District prior to his early retirement 14 years ago.

**Mr. Jimmy Mills**, aged 78, a foreman meter reader collector in North Wirral District prior to his early retirement in 1967.

**Mr. Thomas Myatt**, aged 78, a former timber-feller with the Welshpool Construction section prior to his retirement.

We extend our sincere sympathy to their families.

## Shut-down Program

OUR main computer at Head Office is now programmed to inform our customers in rural areas of proposed temporary shutdowns of their electricity supplies.

This practice will result in savings in time and travel, when compared with the old method of checking who would be affected by a shutdown and then preparing the notices for hand-delivery.

The addresses of customers supplied from most of our rural sub-stations can be extracted from the computer whenever the need arises for an interruption in supply.

Districts can now feed infor-

mation into their own VDU, detailing the sub-station affected and the day and duration of the proposed shutdown. Depending on the urgency of the work to be carried out, a request may also be made for first- or second-class mail.

The instructions are accepted by the computer at Head Office. Overnight, the notices are printed with the necessary detail and addressed to the customer being affected by the shutdown.

## Meet the ladies at Prenton Transmission section

Pat Doyle



Brian Sheppard



### Manweb MARATHON MEN

SUCCESSFULLY completing the gruelling London Marathon run last month were men from MANWEB Pat Doyle (*Stationery Stores supervisor*) and Brian Sheppard (*senior project leader, Management Services*).

Pat's run, in three hours 50 minutes, helped to raise over £100 for the St. John Ambulance Centre Cadets in their Diamond Jubilee Year. Brian, finishing in three hours 20 minutes, raised £296 in sponsorship cash for the Clatterbridge Hospital Cyclotron Appeal.

We applaud both men for their fine efforts and, in turn, Pat and Brian thank everyone who contributed to their fund-raising.

The commemorative medal presented to the runners who completed the course



An attractive duo in the Administration section looking after personnel records, wages and invoices etc, are Beryl Meachin and Carol Emmett



The charming Edna Jones works as a clerk on the Production section



The friendly smile radiates from Elizabeth Stone who is the receptionist and typist

### Mitch on sport



"Which one is Geoff Boycott?"

### Challenge Golf

THE third annual golf match for the Glyn Norbury Challenge Shield was played between teams from our Mid-Cheshire and Mid-Mersey Districts a short time ago, at Crewe Golf Club.

A nine-hole better ball Stableford took place during the morning session, with the Cheshire side taking the honours by four points to two.

During the afternoon, the 18-hole better ball match-play com-

petition was again won by the Mid-Cheshire side by the same margin—four points to two.

The winning team from Mid-Cheshire was: Malcolm Cooper (*captain*), Eric Dean, Eddie Hollinshead, Denis Nicholls, Mike Potts and Howard Snape.

The visiting team from Mid-Mersey District was: Les Butterworth (*captain*), Reg Bramhall, Alan Brown, Austin Heathwood, John Hill and Glyn Norbury.

The Mid-Cheshire side retain the trophy and now lead by two matches to one in the series.

### JUSTIN'S 'EGGSTRA' SPECIAL MACHINE

AGAINST strong opposition, which included an entry from an architectural design partnership, ten-year-old Justin Smith was the outright winner of the "Great Egg Race", organised by the Hartford County Primary School.

The competition was open to any child or parent in the Cheshire area. The propelling power for the egg had to be a simple elastic band.

Justin's entry covered a distance of 89.4 metres, to win by a clear 15-centimetre margin.

His proud father, Vernon Smith, is a 1st engineer in the Production section at Mid-Cheshire District. Justin's mother is Yvonne—maiden name Fiddaman—who was a former secretary working at Head Office in the days when it was based in Liverpool.

With headgear displaying the message "MANWEB has the power to help you", Justin, aided by Vernon, used the model as a promo-



tional vehicle with the "Think Electric" slogan emblazoned across a familiar bear's chest.

The winner's prize—a polished solid wooden egg, suitably mounted—will no doubt be truly treasured by Justin for many years to come.

## Focus on Clwyd . . . .



COMMERCIAL staff from our Dee Valley District manned an attractive stand at the Welsh Development Agency's prestige exhibition held recently at the Deeside Industrial Park.

More than 30 local companies took part in this special four day show designed to help promote new business in North East Wales. The event was timed to coincide with Chester Race Week when it was expected that many top people from commerce and industry would be in the area to mix business with pleasure.

The Board's stand featured some of the many ways in which our specialists could offer service to industry in general.

In addition to meeting and chatting to prospective customers coming to the area, a number of good sales were made to existing companies on the estate.

### Snooker winners

SIXTEEN aspiring Alex Higgins' took their cues in the Clwyd District Sports and Social Club's recent knockout snooker competition held at the Morley Club in Rhyl. The preliminary rounds were played one week before the semi-final matches.

The eventual winner was Denis Jones, our Rhyl shop supervisor, who is seen, right in our picture receiving the trophy from Maria Howes (*Committee member*). Losing finalist Dave Baxendall, was presented with his prize by Gillian Reeve (*Secretary, S & S Club*).



# RETIREMENTS

Farewells to friends and colleagues

## Mr. W. F. HOLMES

STARTING his working life as an apprentice with Brookhirst Switchgear in Chester, William Frederick Holmes joined MANWEB in 1948 as a sub-station fitter with the former Construction department at Ruabon.

A few years later, he transferred to work in the Drawing Office at Rhostyllen and, apart from a period of 18 months at Head Office, he has been there ever since. It was as a records draughtsman that Fred recently retired.

Away from his work, his main interest is music. For 21 years he played the organ at Pentre Broughton Parish Church. Then, for ten years, he was the highly accomplished accompanist for the Wrexham Musical Society,

playing for hundreds of auditions, rehearsals and productions.

He is married to Annis (whose excellent baking was enjoyed by the many people at the farewell gathering), and they have a married daughter who lives in London.

Fred's popularity among his colleagues was proved by the subscriptions to his farewell gift—an electric Flymo—which will help him to keep his extensive gardens in order.

In making the presentation, John Parry (District Engineer) thanked Fred for the work he had done for the Board and wished him and Annis many years of happy and healthy retirement.

At his drawing board for the last time, Fred Holmes, seen here with his wife Annis, enjoys a farewell party with his friends at Rhostyllen.



Alan Wadcock (District Administrative Officer), centre right, wishes a happy retirement for Ernie Hare and his wife Barbara.

## Mr. E. HARE

"METER reader youth" was the title of the first job held by Ernest Hare when he joined the former Liverpool Corporation Electric Supply Department in 1935. After two years, the "youth" part was dropped and he continued as a meter reader until 1940.

He then went "off to war" and joined the Liverpool Scottish Regiment, and took part in battles throughout Europe.

Back home, he resumed his meter reading and collecting until 1973, when he was appoint-

ed as a tariff inspector, the job he held until his retirement.

Ernie enjoys a game of golf and has a handicap of 18. We hear that he is also a "dab hand" in the kitchen, experimenting with foreign dishes.

With his wife, Barbara, they enjoy life on the ocean waves, and have been on a number of cruises, where, no doubt, they have gained their taste for exotic foods.

We join their many friends in wishing them a long and happy retirement to enjoy many more trips.

## Mr. G. BURCH

TAKING advantage of early retirement on his 62nd birthday, George Burch, a chargehand driver in our Liverpool District, said his farewells to friends and colleagues after 41 years' service in our industry.

George began his working life as a labourer with the Engineering section of the former Liverpool Corporation Electric Supply Department.

On joining the Army, he spent the years between D-Day and the end of the war as a driver with the Royal Corps of Signals.

In 1946 he returned to his civilian job and was soon working as a mechanical fitter's mate at the Pumpfields garage. Four years later, he was back in the driving seat and, in 1966, he was promoted as chargehand.

On his first day in retirement, George received a £10 cheque in the post for an idea which he had submitted in the industry's Suggestion Scheme.

He now hopes to be able to "take off" more often on touring holidays with his wife, Freda. His other hobbies and interests include gardening, hi-fi and recording classical music.



Above; Friends at Lister Drive give a good 'send off' to George Burch, centre left, as he receives a farewell handshake from John Jones (Production Engineer). Below; Staff from the Finance section at Head Office gather round as Peter Falcon says farewell to Margaret Noble.



## MISS M. NOBLE

AN administrative assistant in the Finance and Stores section at Head Office, Margaret Noble had her farewell ceremony staged at the unusual time if 9.30 in the morning!

In making the official presen-

tation, Peter Falcon (Assistant Chief Accountant) said that Margaret was a very conscientious worker and loyal member of the Board's staff. He traced her career from the days when she worked for a firm in Garston and into the war years, when she served from 1943 to 1946, first with the Royal Artillery and later with the RASC. Much of her service time was spent in plotting the movements of enemy aircraft over the South of England.

She joined MANWEB in 1953, to work at Derby House in Liver-

pool. "It was here that I first met her," commented Mr. Falcon. "She must have put in some good work there, for she was promoted on two occasions."

She was invited to Chester in 1970 and, again, the quality of her work gained her yet another move up the ladder.

Presenting Margaret with a carriage-clock, just one of the many gifts from her friends, Mr. Falcon wished her many years of happy retirement touring North Wales and the Lake District and looking around ancestral homes.

## London Trip

LUCKY members of the Mid-Mersey Pensioners' Association enjoyed their annual visit to London recently.

On their first night in Town, they went to see Michael Crawford in the hit show "Barnum" at the Palladium.

A visit to Buckingham Palace was on their itinerary for the next day. Here they had a privileged place within the Palace forecourt to view the ceremony of the Changing of the Guard. They also witnessed the arrival of the Sudanese Ambassador, who called to present his credentials to the Queen.

The pensioners' party enjoyed an amusing, light-hearted and most interesting talk on the history of "Buck House" by a constable from the Palace police. "It really made the day for us," commented Association secretary Nan Kirkham.

## Leaving North Wirral

Mr. William Bell, an electrician in the Contracting section, has taken early retirement after 33 years' service with the Board. Bill was a member of the District's Local Advisory Committee for many years.

Mr. Eric Coley, a foreman in the Engineering section, has retired due to ill health after serving the electricity industry for 41 years. Part of this time was spent as an instructor at our Hoylake Training Centre. A versatile man whose interests range from making and

flying model aeroplanes to rock climbing and caravanning as well as being an accomplished artist, Eric will be missed by his colleagues if only for his corny jokes!

Mr. Denis Lionel Virgin has retired after 23 years with the Board. He joined us as a jointer's mate in the Engineering section but for the past 14 years he has worked as a driver for the Installation section.

We join with their colleagues in North Wirral District in wishing these men many years of happy and healthy retirement.

## Life begins at ...

by MITCH

