SCRAM

# ENERGY BULLETIN


No 30

# Nuclear Weapons

40p

Make Scotland Nuclear Free

French Promises

Sizewell B -Which Way?

Tidal Power

FREE Four-Page Broadsheet

# & Nuclear Power

# ARSON ATTACK

On the evening of Friday 16th April the SCRAM offices were broken into, and our extensive library and filing systems were seriously damaged by fire. The offices are on the fourth floor and access was gained via builders' scaffolding at the rear of the building. All four offices had obviously been ransacked before the fire was deliberately started in the library. Police are treating the attack as arson.

## What we lost

As a result of the fire we have lost much of our printed material. This includes: all of our journal collection (250 titles, 2500 items), most of our books and some of the recently-collated newspaper cuttings collection. We also lost office equipment including an electric typewriter, a duplicator, three filing cabinets, and desks, chairs and bookshelves.

Since the arson attack on us we have heard of similar dreadful things occurring elsewhere. Derry Anti-Nuclear Group in Ulster and Catford CND offices in Kent have both been fire-bombed and the Edinburgh University Publications Board office windows were smashed and British Movement graffiti daubed around. **The Observer** (25.4.82) presumed our fire and the attack on the Peace Camp at Caerwent were both examples of a growing right wing movement against peace groups in this country.

## What we need

Our most urgent requirements are **money** to replace material; a **typewriter** and **filing cabinets** — we may be able to collect; and copies of **rare or special documents.** We are extremely grateful to those who have responded to the Appeal so far (see page 15). You can all be assured that the money will be wisely spent and that the re-formed Library always open for everyone to use freely.

The fire was rather ironic because, as we mentioned in the last SCRAM Members Newsletter, our lease has expired on 30 Frederick Street. After hectic searching we have now found new premises at street level. There are seven rooms, on two floors, some of which we shall share with other organisations. Within a month we hope to move in the Smiling Sun shop and Mail Order Service as well. Although all mail and phone calls will be redirected please note our change of address to:

**SCRAM, 11 Forth Street, Edinburgh EH1 3LE.**
Please also send any Fire Damage Appeal donations to this address. Thanks.

# Dear Reader,

**The SCRAM Energy Bulletin** is five years old with this issue. We started it, and in a way continue it, as the newsletter project of a small local group away in the far north. Yet we fulfill an increasingly valued role for people all over the country campaigning on **Energy and Disarmament** issues. What we need now is more subscribers and more Supporting Members - hence the Urgent Request on the back cover.

We are determined to dissolve the false barriers between the energy campaigns and the Peace Movement. The result is the **special 4-page broadsheet** which comes free with this issue. We hope you find it useful - bulk rates are available.

This month also marks the first anniversary of the **Socialist Government in France.** While good in parts - like the creation of a new Renewable Energy Agency with £30m Research budget - our European correspondent paints a sorry picture of broken promises on nuclear matters.

Nearest home, we as a campaign have been participating in the broad coalition opposing the PWR - **Sizewell Co-ordination.** We feel it's very important how the movement approaches the forthcoming Inquiry. We are publishing two views on tactics in the hope they will set you thinking.

All these and the other topics covered in this issue make us ever more committed to continuing and improving the magazine. We invite your participation, both with news items, graphics, photos and by your financial support.

# SCRAM ENERGY BULLETIN

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**This magazine is produced for the Anti-Nuclear, Safe Energy and Disarmament movements in Britain by the Scottish Campaign to Resist the Atomic Menace.**

**SCRAM, 11 Forth St, Edinburgh 1.**

This issue is the work of Adam, Berni, Claire, David, Deirdre, Duncan and Olwen. We welcome contributions for the next issue to be published end of July.

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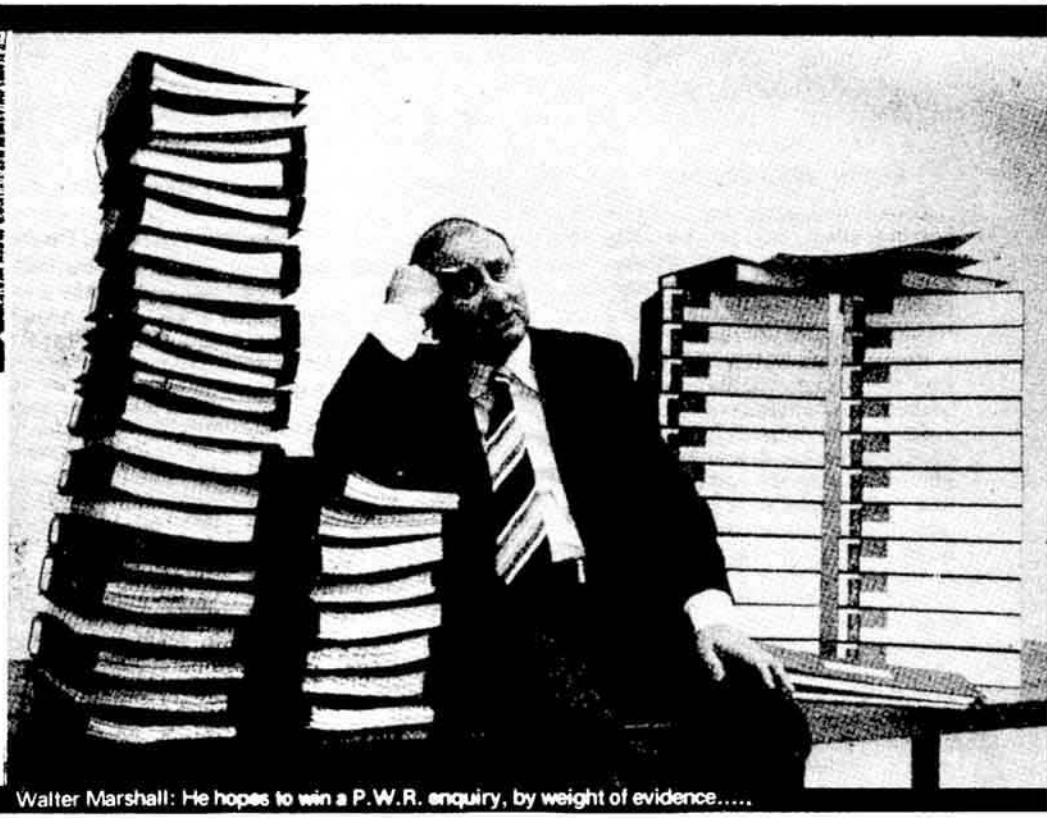
The bi-line **'WISE'** on many of our news stories stands for **'World Information Service on Energy'**. This is an international news network serving movement publications and activists.

WISE publishes a monthly magazine, a Stop Uranium Newsletter and a fortnightly News Communique — which we use for these stories.

WISE is partly funded by a one penny royalty on all Smiling Sun badges and stickers sold, but they also invite your support. Send £1 for sample copies to:-

**WISE Oxford, 34 Cowley Rd., Oxford.** [0865 725354].

# Sizewell Inquiry



Walter Marshall: He hopes to win a P.W.R. enquiry, by weight of evidence.....

**An extraordinary Public Inquiry, held under the 1909 Electric Lighting Act, is due to open at Snape Hall, Suffolk next January. It will consider an application by the Central Electricity Generating Board [CEGB] for consent to construct Sizewell 'B' - Britain's first Pressurised Water Reactor [PWR]. Though if promises to be the biggest jamboree on the energy scene since the '77 Windscale Inquiry many doubt the wisdom of taking part. We print here two of the opposing strands of opinion.**

"To participate or not?" That is the question that everyone is asking in the anti-nuclear movement at the moment. Here are a few reasons why I feel that as many groups as possible should be taking part in the farce at the Sizewell Inquiry.

Firstly, I believe that public inquiries are rigged by governments with the result that what governments want they get. Why then take part? I believe that this government is as capable of losing a public inquiry, with the help of the Atomic Energy Authority, as it is of winning one. Consider Mrs Thatcher's commitment to the expansion of nuclear power, and the various "vested interests" nudging at her elbow. To achieve their aims it is not necessary to build a PWR; an AGR fits the bill equally well, better if you want more weapons grade plutonium. I feel that the government might **want** to loose the Sizewell PWR Inquiry. Before committing me to a pyschiatric ward consider the following points:

(a) To lose a PWR Inquiry at Sizewell would restore faith in the inquiry system at least in the eyes of the general public.

(b) To lose on safety grounds would bolster public confidence as the system would be seen to safeguard health. Refusing to build an unsafe PWR proves that the existing AGR's are safe.

(c) To lose a public inquiry in which the opposition has refused to take part, destroys the credibility of that opposition. It adds credence to Government bodies as guardians of the public interest and public inquiries in particular.

A senior member of the CEGB has told me that the decision on Sizewell will probably be made by the House of Commons and not by the Secretary of State. Reviewing the present positions of the political parties — (ie. Labour anti-PWR pro AGR; SDP anti-PWR ? AGR; Liberal anti-nuclear; Conservative pro-nuclear but quite a number of Tory MPs are anti PWR) — it is not an improbable assessment to suggest that given a free vote in Parliament PWRs will not be built in Britian. The CEGB already has planning permission for an AGR at Sizewell and could go ahead with their plans for a second station without a further public inquiry.

The anti-nuclear movement should take part so that, if my analysis is correct, we can claim the victory. The question we should be asking is "Can we afford not to take part?"

**George Pritchard from Cornwall.**

Public Inquiries are sops to democracy. They are a charade — like asking someone if they would prefer amputation of either a leg or an arm. Even so, we all find it difficult to accept that the system does not respond to logical argument and public opinion. I hope I'm proved to be wrong, but already our opponents see that the carrot they've dangled in front of the anti-nuclear donkey is getting the expected results. It seems to Greenpeace that the PWR Inquiry has appeared as an empty stage, upon which the flood-lights have just fallen, leaving some of the ranks already jockeying for position. And the danger is that all our energies and money will be spent pursuing the PWR Inquiry carrot and we'll emerge exhausted, skint and doubtless still hungry.

Certain public inquiries have no doubt been useful staging posts along the road to change. But we feel that it is the way we use the public inquiry system which is a measure of our integrity. We believe that for this inquiry the national groups should be providing the local people of Leiston and Suffolk, who would live in the shadow of the wretched reactor, the legal, financial and technical back-up they need to make their appeal to the nation. They should co-ordinate opposition from outside, using their considerable powers of organisation to address, not from a purely technical stand-point, questions of quality of life, post-industrialism and social direction.

In order to effect change, the powers that be must feel threatened. We will not threaten them within the forum of a public inquiry. They are the experts; they set the rules, appoint the referee and linesmen and field most of the players. Greenpeace believes that a boycott of the Sizewell Inquiry by all the well known, influential groups would have a far more telling effect on public opinion than our attendance, which would merely legitimise the charade. We should collectively state that the broad anti-nuclear movement will not participate in haggling over whether a PWR or an AGR is built at Sizewell. We should first demand Government action on stringent energy conservation standards, promotion of CHP schemes nationally and greatly increased funding for renewable energy sources. We believe that if these demands were ever met there would be no PWR Inquiry. Don't rush to defend the front door when the back door as ajar. Boycott the Inquiry!

**Pete Wilkinson for Greenpeace Ltd.**

We welcome your letters on tactics the movement should take on Sizewell. Keep them short!

# News

## Dirty Windscale

Britain's Windscale reprocessing plant is the world's most polluting nuclear establishment according to the new report from the Political Ecology Research Group (PERG).

There is absolutely no doubt that Windscale would not be allowed to operate anywhere else in the world. The UK accounts for at least 95% of all sea-dumped radioactivity and Windscale is easily responsible for at least half of this. Over the past 25 years the plant has released more than one-quarter ton of plutonium into the Irish sea. The report summarises scientific data showing that levels of plutonium in Cumbria around Windscale are 10-15 times greater than the present normal and 100-1000 times greater in sheep and cattle.

Available from PERG, 34 Cowley Road, Oxford. £5.50 (50p p&p) or from SCRAM Mail Order Service.

"A nuclear worker was treated for radioactive contamination at Hunterston nuclear power station in Ayrshire, SW Scotland after falling 30 feet into a spent fuel cooling pond. The pond was empty of fuel and contained only 2 feet of water. The man suffered a small amount of contamination in one finger." — from the quarterly report on nuclear incidents by the Health and Safety Executive.

Eds note: US activists nickname these ponds radioactive 'swimming pools'.

# SIZEWELL COORDINATION

**The Sizewell Inquiry is coming soon. Start preparing now, is the feeling of the twenty-five plus organisations already meeting in a loose coalition entitled Sizewell Co-ordination.**

**All the major groups have had formal applications for funding rejected by Government. But they say that unless public funds are forthcoming — (several £100,000's would be needed) then the Central Electricity Generating Board (CEGB) case for the new Pressurised Water Reactor (PWR) could not be adequately scrutinised as the Government wishes.**

All the major groups have had formal applications for funding rejected by Government. But they say that unless public funds are forthcoming - (several £100,000s would be needed) then the Central Electricity Generating Board (CEGB) case for the new Pressurised Water Reactor (PWR) could not be adequately scrutinised as the Government wishes.

So both the CEGB, through the local Tory MP John Gummer, and the UKAEA, in the form of their boss Walter Marshall, are trying to cobble together 'independent' trusts. These would only pay for research into the objectors' case. Marshall, also head of the heroic 'PWR Task Force' wants to divert some of the AEA's 'education' budget for his fund which would be run by third parties.

So even if the Government won't budge the nuclear establishment are clearly worried that the Inquiry would be discredited if there were no 'genuine' opposition presenting evidence.

Further, at a recent conference the otherwise super-confident Marshal acknowledged that weapons proliferation is the issue he feels the industry cannot answer. So doubtless CND will have a role.

The Anti-Nuclear Campaign ANC is making good progress with the Unions, though I was shocked to hear that at their recent T.U. meeting in Ipswich the E. Anglian Alliance was barred from speaking.

**Sizewell Co-ordination** is unique in bringing together those considering participating and those who will not. If your group wishes to participate in this forum contact Jennifer Armstrong, **East Anglian Alliance Against Nuclear Power, 2 St Helens Street, Ipswich. [0473 - 214308 Day].**

The first 'Pre-Inquiry' meeting held by the Inspector, Sir Frank Layfield, at Snape Maltings, Suffolk is on 1-3 June. Contact D.P. Hauser, Inquiry Secretary, Rm 1459, Thames House South, London SW1, asking to be put on their mailing list for information.

For ourselves we shall be preparing a special 4-page broadsheet on the **Background to Sizewell** for all groups to buy in bulk and use in local agitational work. It will come free as an insert with next SCRAM Energy Bulletin at the end of July.

**David Somervell**

## Smelter Deal?

It appears that a special 'cheap power' deal for the Invergordon Aluminium Smelter has been approved by the government. The announcement has come near the end of the time that British Aluminium, the operators, agreed to maintain the factory. The estimated cost of maintenance has been around £500,000 per month. Some reports suggest that the plant has not been maintained as well as the company promised.

The last month has seen angry outbursts from North Scotland because of the subsidies paid to smelters in the rest of the UK being greater than for Invergordon. Alcan's Lynemouth smelter has a special supply deal with the National Coal Board and R.T.Z. Kaiser Aluminium, the operators of the Anglesey smelter in Wales, have a special arrangement with the CEGB; this is a subsidy by which the smelter has a power price below that of Invergordon's. Some reports suggest it will continue until the long-delayed Dungeness B nuclear power station reaches its designed output capacity. Reports also suggest that this is unlikely ever to be achieved. The subsidy is paid, in effect, by the CEGB consumers since no government grants cover it.

The proposed new deal for Invergordon is apparently a £20 million subsidy to supply power generated by coal stations(!) in the South of Scotland. This may involve the purchase of part of Kincardine power station by a new smelter operator, with guaranteed back-up hydro power generation. All that's needed now is the increasingly unlikely approach from a new operator. With world stocks of aluminium ingot at record levels it seems a forlorn hope.

Financial Times, Sunday Standard, Scotsman 20.4. to 6.5.82

## Promises, Promises

Latest employment figures show that the SSEB's promise of 'substantial local employment opportunities', resulting from the construction and operation of the AGR at Torness, were completely unfounded. The proportion of the workforce drawn from the immediate area, ie. East Lothian, has reached a plateau at 22%. Likewise only 33% of the workforce comes from within a radius of 35 miles including the City of Edinburgh and the Borders region.

The Manpower Services Commission report that there are plenty of unemployed local people suitable for work at Torness. So the SSEB's original promise that at least 40% of the total workforce employed on the Torness project would be 'local', has never come true.

Another cruel example of how massive civil construction schemes like this, pursued in a rural area to which it bears nought but a harmful relationship, **do not relieve unemployment.**

## A Warm Seat?

The public toilets to be built at the King George V playing field in Portree may have a solar panel on the roof to help provide hot water. Chief executive Mr. David Noble told members of the Skye and Lochalsh District Council environment committee this week that the solar panel was something which could be dropped from the plans if costs proved prohibitive.

W. Highland Free Press 14.4.82

## Derailed

The goods train returning a spent nuclear fuel flask or 'coffin' from Windscale to Bradwell in Essex was derailed at Holbeck, close to Leeds city centre, at 7.30 a.m. on Wednesday 10th March. Fifteen of the forty wagons were derailed but the wagon with the empty 'coffin' remained on the line. Police promptly sealed off the area.

Tony Hudson of the National Radiological Protection Board announced that the flask 'was absolutely empty and sparkling clean'. Though flasks are washed out at Windscale, there is no guarantee that they are "safe". There was a spillage from a similar flask at Barrow Docks, in May '79 - following which the affected concrete had to be removed.

Another derailment took place on March 31st near Wakefield. It is reported that the wagon was again carrying an empty flask from Windscale to a power station in the South.

Routing Out - Waste Transport Bulletin Jan/Mar. '82

## 30 Deferred

The United States Nuclear Regulatory Commission predicts that as many as nineteen power plants currently under construction in the USA will be cancelled or deferred indefinitely by their owners.

Since 1979 thirty nuclear power stations have been either cancelled or deferred. The main reason is said to be the rising construction costs, high interests rates, demand falling below prediction and public disenchantment with the nuclear industry.

## Whyl Go-ahead

On March 30th a W. German Federal Court ruled to allow the construction of a nuclear power plant at Whyl — a small village in south-west Germany across the Rhine from French Alsace. This reverses two previous decisions made in 1975 and 1977 to halt construction of the plant.

Local resistance groups have been organised in the area since 1971 and there have been many big protests and site occupations there over the years.

Farmers and local people mobilised again immediately after this decision. The case has also been taken to the Berlin Court of Appeals but the government want to go ahead with the construction without awaiting this Berlin Appeal Case. No explanation nas been given on why permission has now been granted. WISE 8.4.82

## No Choice!

On March 27th one thousand people demonstrated at Chooz, in France against the government's decision to build a second reactor there. Chooz is on the French/Belgian border and the decision has drawn massive protest from both French and Belgian people.

The protest on the French side of the border was overwhelmed by 2000 policemen who sealed off the area to block access to the site. Workers from the nearby ironfoundry joined the protestors because nine hundred of them will shortly be made redundant. Electrcité de France only promise 100 jobs at the new power plant.

WISE 1.4.82

## Torness Costs Up

Discreetly, the nuclear industry has again increased its estimate of the capital cost of building the new nuclear power station at Torness in East Lothian.

In 1978 the South of Scotland Electricity Board announced that £742 million was the total cost. In 1980 they upped it to £1,097 million. Now, in an extensive article in the April issue of the UKAEA magazine **ATOM**, Simon Rippon, European Editor of Nuclear News, quotes a cost of **£1,430 million.** In other words, the official price tag for Torness has practically doubled in just four years.

Rob Edwards 23.4.82


Photo: Chris Hill

SCAT's Easter Demo against Trident in Glasgow.

## Poisoned

Two Canadian nuclear workers have been awarded compensation for damage to their health incurred through radiation poisoning.

While officials deny that either man was exposed to radiation in excess of limits considered safe by the nuclear regulatory authorities — the lifetime doses both men received were 150 and 100 rems respectively, it has been admitted that within these 'limits', one can still receive harmful and maybe eventually fatal doses of radiation.

WISE 1.4.82

## French Trading

Israel is hoping to buy a PWR from the French company Framatome. They have already been in touch with G.E.C. in Britain with a view to buying nuclear technology, but the talks came to nothing because of Israel's refusal to sign the Non-Proliferation Treaty. Israeli opposition to the treaty is likely to be less of a problem in France. However France does want to avoid the wrath of the Arab countries and wouldn't like to find itself on their trade boycott list if a nuclear sale went ahead.

The Israelis hope to bring pressure to bear on the French by pointing out that delivery of a nuclear reactor would be a fair counterpart to France's offer to rebuild Iraq's test reactor at Tammuz which was destroyed by the Israeli air force. Meanwhile the Iraqis are asking the French to bury their new reactor 100 meters underground. The French say they will only help if Iraq accepts low grade uranium fuel, which cannot be used for bombs. Iraq has so far stressed that they will only accept highly enriched fuel.

Electrical Review 19.3.82

## Campaigns Succeed

Robert Blackith reports from Dublin that "in Ireland the whole nuclear farce has been put on the long finger for '10 to 20 years', which in practice means that we have secured a definitive victory for the forseeable future. ... News of the decision has been slipped into odd speeches by the Electricity Supply Board and the National Board for Science and Technology in as low-key a way as possible, no doubt to avoid EEC complaints."

We hope to have a fuller piece on the Irish decision next issue along with a full report on the fantastic news that the Danish Government has formally demanded closure of the Swedish Barsebäck reactor. This will make it virtually impossible for one to be installed in Denmark; so that's two EEC countries free from reactors for the forseeable future.

Politiken (Dk) 25.3.82

## Alta for NATO?

The massive hydro-electric dam at Alta in Northern Norway has been given the go-ahead. But Swedish sources suggest that the project is an elaborate cover-up for a large new NATO military base.

Several developments nearby may give a clue to the answer. The airport has been considerably enlarged, large underground caverns built (for weapons storage?) and several extensive radar installations constructed. These, the Swedish report suggests, are part of a NATO base designed to control the Barents and Norwegian seas and counter the Soviet base at Murmansk. No wonder they had the military police and riot squads out last year against the non-violent protesters. Militarisation of the state marches on. WISE 1.4.82

## Shuffles

**Donald Miller** replaced Roy Berridge as Chairman of the South of Scotland Electricity Board on All Fool's Day. Donald Miller has previously been responsible for construction of: **Hunterston 'B' AGR** — closed for years at a cost of £50m plus, due to seawater eak; new **Inverkip** oil-fired station also on the Clyde coast — now practically mothballed due to lack of demand and fuel cost; and **Boddam** gas/oil power station at Peterhead near Aberdeen — this too is run well under capacity.

Donald Miller's first public statement confirmed his unflinching devotion to the **Torness AGR** project. The kiss of death? We only wish they wouldn't waste public money on these capers.

Energy Secretary Nigel Lawson has sacked **Glyn England**, the aptly named chairman of the Central Electricity Generating Board which serves England and Wales. Only problem is he cannot find a successor.

**Derek Ezra**, the genial and forceful head of the National Coal Board, is also retiring after 10 years. He's certainly seen changes — from the massive run-down of the industry in the 60's to the go-ahead new image 'Fuel of the Future'. Pity he was unable to undo the underlying anti-NUM and anti-coal bias in the energy establishment which is propelling us into a nuclear future.

●The **Dounreay Exhibition** re-opened for the summer tourist season on the 2nd of May. Afternoon tours of the Prototype Fast Reactor are now available seven days a week, 'operational conditions' permitting. In 1981 20,000 visited Dounreay, though only 3,500 toured the reactor itself.

Caithness Courier 5.5.82

●**Ayrshire Nuclear Power Station:** A group of industrialists and others have asked Scottish M.P.s to put pressure on the SSEB and the government to abandon "vague" plans for a nuclear power station at Chapeldonan, near Girvan, south of Glasgow.

The land was bought in 1974 by the SSEB and an official for the board said that there were no plans to build a station there within the next ten years. Sites for nuclear stations in the West of Scotland were so few that it would have to be retained for future use, he said.

●**Wylfa Expansion:** The CEGB are in the process of purchasing another 40 acres of land adjoining Wylfa nuclear station, Anglesey. Acquisitions around the station now total more than 200 acres, which is enough for construction of a replacement station. The present station is expected to be capable of generating electricity for the next 15 years. A potential PWR site?

●**Cuba:** TASS reports that the Soviet Union will supply Cuba with its first nuclear power station, and that work will begin soon.

Guardian 7.5.82

●**Romania and China** recently signed a joint agreement to co-operate in the 'peaceful' use of nuclear energy. Peking Radio report the agreement to be one of a number of accords signed when President Ceaucescu visited China recently.

Scotsman 17.4.82

●**Three Mile Island:** On the 22nd March a low level emergency was declared at the crippled power station because of a suspected leak in the reactor cooling system.

Guardian 23.3.82

●**T.M.I. clean up:** A Bill requiring the utility companies with operating nuclear reactors to pay the US $1.5 billion (£833 million) clean up costs has been approved by the U.S. Senate Committee. The Bill will also create a US$750 million insurance pool in case of future nuclear accidents.

Financial Times 2.4.82


●At the Executive Meeting of the **Australian Conference of Trade Unions** [ACTU] on March 12 a vote was passed to maintain their policy against the mining of Australian uranium. This policy was initially created in September 1979 but was temporarily suspended in December 1981 due to government pressure.

The question now facing the ACTU is how to implement the bans. A sub-committee has been set up which is particularly interested to know if there are trade unions outside Australia willing to support actions taken by the Australian unions, especially if strikes would be broken by military intervention.

The main unions involved are ATEA (Telecommunications Employees Assoc.), BWIU (Building Workers) and the Trade and Labour Council of Queensland.

At the meeting the ATEA also called for support to widen the bans against Minatome and the uranium mine at Ben Lomond.

It is also understood that the Japanese freighter "Pacific Sky" had to anchor off Darwin for a month and a half awaiting the lifting of the uranium blockade prior to the December vote. It seems that since negotiations with the local unions were failing, the Northern Territory Government began to build an improvised habour close by, so the ship could be loaded without union assistance. As previously reported the ship did eventually load in Darwin harbour.

●**International Nuclear Free Pacific Week,** March 1st to 7th, was marked by events all over the world. In Germany and the Netherlands demonstrators gathered in front of the French and Japanese consulates. In Sydney, Australia and Hawaii leafletting and petitioning were carried out and in San Francisco a rally and public forum was held in particular to support the Belauan islanders currently touring the U.S.

Belau is a U.S. administered U.N. Trust Territory which recently declared itself the world's first nation to ban storage, testing, disposal and transport of nuclear waste in its territory.

●Admiral Long, the Commander-in-Chief of the US forces in the Pacific has said that his forces should be equiped with chemical weapons and Cruise missiles. Earlier this year Reagan gave the go-ahead for massive production of binary nervegas weapons.

The Admiral says that they are 'essential as a deterrent' against the Soviet forces. He also called on staunch allies eg. Australia to take more share in the collective security burden in the Pacific. He will oversee the exercise 'RIMPAC 82', which uses the Hawaiin island Kaho 'olawe as a bombing target, despite it being on the US register of historic places.

The Hawaiin Legislature has repeatedly called for a halt to the weapons testing and for the return of the island to the Hawaiin people. Hawaiin anti-nuclear and environmental groups are organising worldwide protests against the storage in Hawaii of the largest stockpile of nuclear weapons in the Pacific and against further weapons testing.

●The Australian government approved the exploitation of the **Lake Way uranium deposit,** near Yeelirrie in Western Australia on the 19th January. The federal government approved foreign investment arrangements to let Delhi International Oil, whose subsidary company has a 53.5% investment in Lake Way, and Vam Ltd. to begin the site's development.

In March the Australian government also gave permission for Pancontinental Mining Company to begin negotiating export contracts for the **Jabiluka** uranium mine.

●An agreement was initialled in Canberra on January 19th between Japan and Australia to **Japan to reprocess Australian uranium.** The agreement only became possible after the Australian government dropped demands for prior approval in the reprocessing of the Australian uranium. Australia still wishes for Japan to ask for approval to transfer uranium to a third country and to enrich low enriched uranium to more than 20%. The Japanese parliament have still to finalise the agreement.

●In a meeting to be held on the French Pacific island **New Caledonia** later this spring the Pacific Trade Union Forum are expected to press for a ban on nuclear weapons testing in the Pacific and to call for independence for New Caledonia. The Forum's policy says "the Nuclear Free Pacific will not be achieved without freedom from colonial superpowers", and it is considering a proposal for boycotts on trade with Australia, for its sales of uranium and on France for weapons testing.

In a related move Papua New Guinea trade unions sent a letter of protest to President Mitterand of France stating that they will implement the Forum's resolutions if France does not stop its nuclear testing.

**KIITG and WISE**
**10.12.81 to 8.4.82**

# CANUC...

**In 1973 the British Government signed a deal with the giant multinational Rio Tinto Zinc (RTZ) for a supply of uranium from the Rossing mine in Namibia. Half the national requirement comes from this mine. It is effectively stolen goods — the apartheid state of South Africa illegally occupies Namibia and the extraction of minerals is in violation of international law. Clare Simpson reports on the 17th April Conference of the growing Campaign Against the Namibian Uranium Contract (CANUC):**

The day started with a showing of the World in Action TV documentary **Follow the Yellowcake Road** as an excellent introduction to the Namibian contract. Then Arthur Pickering, a former RTZ employee at the Rossing complex, gave a first-hand account of the terrible working conditions, the degrading labour relations and the insidious apartheid regime at the mine. A full account is printed in CANUC News Number 1. Further speeches included SWAPO, Anti-Apartheid Movement, Namibia Support Committee, CND and the NW Anti-Apartheid Trade Union Liaison Committee.

## A Trade Union Blockade?

A report was given from the Trade Unionist Conference on the Namibian Uranium Contract held in Bristol on 2 April. There there were delegates from transport unions including the N.U. Seamen, N.U. Railwaymen and dockers unions, stewards from the BNFL factory at Springfields which processes the uranium and from RTZ factories attending. That conference had passed a resolution "that a selective blockade of Namibian Uranium was both feasible and necessary." The Conference had decided to combine campaigns against the illegal importation of Namibian uranium with opposition to the proposed 'Tebbit's Law'.

SWAPO, the S.W. Africa Peoples Organisation, and the Namibia Support Committee, sponsors of CANUC, plan to publish a Trade Union Handbook detailing British firms in Namibia and reporting union campaigns here and abroad.

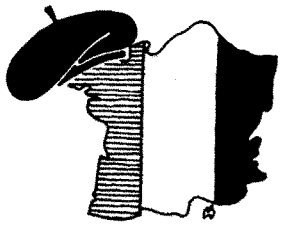
## Disinvesting

Later on there were workshop discussions on disinvestment campaigns, using the media and working with the Labour Movement. PARTIZANS — People Against RTZ & Subsidiaries, described their campaign to get institutions to sell their shares in RTZ — to 'disinvest'. So far the NSPCC, Edinburgh District Co., Tyne & Wear CC, Salvation Army, Bahai Faith and others have disinvested.

The support for CANUC is growing and they invite your active support.

**CANUC,** c/o NSC 53 Leverton St., London NW5.
**PARTIZANS,** 218 Liverpool Road, London N1. (01-609-1852). **Films** available from Concorde Films, 201 Felixtowe Road, Ipswich. (0473-76012). **Uranium Facts Sheet** available for 20p inc. from SCRAM.

# Socialist Promises....



**M. Mitterand was elected President of France in May '81. Here a correspondent from Europe writes of the steady reversal of promised energy policies. No doubt there are lessons for those tempted to put much faith in our own Labour Party policies on Energy and Disarmament.**

Within President Valéry Giscard d'Estaing's seven year term of office (1974-81), forty-one reactors were built as his "all-nuclear" solution to France's dependance on imported crude oil. As part of this plan — the most massive nuclear programme in the world — construction was also started on the Fast Breeder at Creys-Malville, designed to produce the plutonium necessary for France's independent nuclear deterrent. Despite Giscard's election promise not to impose nuclear power stations on unwilling communities, the programme was enforced by an undemocratic system of local consultation: should a majority of local councils refuse the project, the decision was passed on to the indirectly elected Regional Council. Should they too refuse the project, the government had the power to authorise construction.

In this way, where local opposition was attacked by riot police and army units. It was against this background of nuclear dictatorship that half a million people put their signatures to a National Energy Petition, published in March 1980. Among the signatories were Francois Mitterand and most of the Socialist Party Central Committee, together with those of the Friend's of the Earth, the MRG (Social Democrats), the PSU (Radical Socialists) and the CFDT, France's second largest trade union. The Petition called for a moratorium on all new nuclear construction, during which a national debate and democratic consultations on nuclear power would be held.

## "All-nuclear" Option

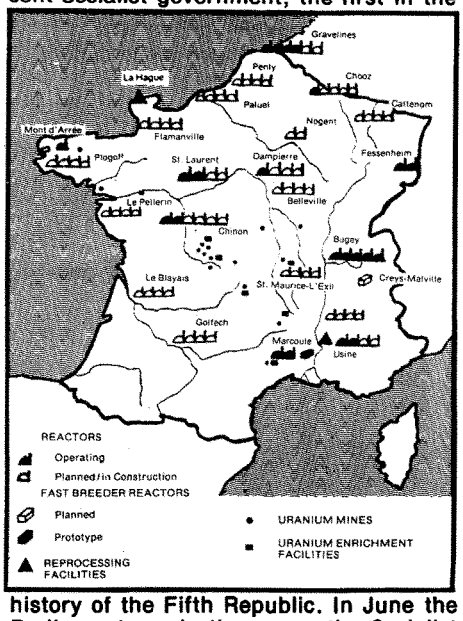
This policy commitment by the Socialist Party was reinforced in 1978 in Parliamentary Bill 592, which denounced the "all-nuclear" option as anti-democratic and proposed a moratorium of eighteen months to two years. The policies were elaborated in two documents for the 1981 Presidential election campaign — the "110 Proposals for France" — their election Manifesto — and "Energy — the Alternative Policy". In these, the Socialist Party promised to establish a moratorium on fourteen sites reserved by President d'Estaing for future nuclear construction, naming specially Cattenom 3, Chooz B1, Civaux 1, Golfech 1, Le Pellerin1, Nogent 2, Penly 1 and Plogoff 1.

During this moratorium an "open and public debate" with media participation would be held to allow "the French people, properly informed, to determine by referendum the place they desire nuclear power to hold in the future energy supply of our country". Only if the referendum was in favour of nuclear power would further power stations be ordered. After the referendum, the Socialist Party would enact a law guaranteeing "the control of the citizens and their representatives over the whole of the nuclear cycle". The Socialist Party also promised to shut down the Fast Breeder at Creys-Malville, still under construction.

In this way, the project for a nuclear power station was imposed on the village of Plogoff in Brittany, where local opposition was attacked by riot police and army units. It was against this background of nuclear dictatorship that half a million people put their signatures to a National Energy Petition, published in March 1980. Among the signatories were Francois Mitterand and most of the Socialist Party Central Committee, together with those of the Friend's of the Earth, the MRG (Social Democrats), the PSU (Radical Socialists) and the CFDT, France's second largest trade union. The Petition called for a moratorium on all new nuclear construction, during which a national debate and democratic consultations on nuclear power would be held.

## Changes Promised

The results of the first round of the elections in April 1981 confirmed support for the Socialist proposals; excluding the numerous anti-nuclear militants within the Socialist Party, 2,750,000 votes (9.5% of total) were cast for the four small parties offering anti-nuclear policies (FoE, PSU, LO, MRG). Of these some 2 million voted for Francois Mitterand in the second round which is limited to the two leading candidates from the first round. This was mainly on the strength of his anti-nuclear policies and guaranteed him victory over Giscard d'Estaing, with a majority of just over one million votes. Had the radical anti-nuclear votes abstained as in the 1974 elections, France would not have the present Socialist government, the first in the history of the Fifth Republic. In June the Parliamentary elections gave the Socialist Party an absolute majority in the National Assembly: the road was clear for a safer and sane energy programme.




## What Moratorium?

At the end of July, the first of several "policy changes" was announced; the moratorium would only cover Cattenom, Chooz, Civaux, Golfech and Le Pellerin. Plogoff was officially abandoned and the controversial sites of Chooz, on the Belgian border, and Golfech seemed safe. Despite signs of disquiet at this half-kept promise, the Socialist government pressed ahead in September with further retreats from their pre-election policy. Prime Minister Pierre Mauroy announced that the "open and public debate" where the anti-nuclear lobby could present its case was to be replaced by a two-day parliamentary session, with a party whip in force. With an absolute majority and rigorous voting discipline, the government threw out all their election promises. They agreed a programme of six new power stations for 1982-83, only three less than the Giscard plan, and the development of the new UP3 facility at the Le Hague reprocessing factory. The moratorium, now only partial, would be lifted using the Giscard system of consultation previously denounced by the Socialist Party as a "masquerade of democracy".

The law guaranteeing popular control of the nuclear cycle was dropped, as was the referendum, and the construction of Creys-Malville was to continue. After a session which was neither open, public, nor a debate, in the true sense of the word, the government's programme was approved by Parliament. Ironically, only Giscard's party, the creators of the "all-nuclear" option, voted against the motion. As in 1974 politicians went back on their promises and imposed nuclear power without democratic consultation.

## Promises Changed

The programme went into action in November with the announcement that the six power stations for 1982-83 would be Cattenom 3, Chinon B4, Chooz B1, Golfech 1, Nogent 2, and Penly 1. Project studies for Civaux 1 and Le Pellerin 1 would continue. All of these sites, with the exception of Chinon, were part of the promised moratorium which would allow the people to voice their opinion. Following decisions obtained by the Giscard "consultation" system construction started. But, embittered by the politicians betrayal, the anti-nuclear groups began to fight back. Golfech has become the symbol of the anti-nuclear struggle against Mitterand just as Plogoff, the only site abandoned, was against Giscard. Violent clashes between riot police and demonstrators, in December, led to the anti-nuclear groups' headquarters being burnt down, while the riot police were occupying it! Tear gas was fired at French television cameramen.

The demonstrators replied in kind— Electricité de France offices in nearby Agen were blown up and bomb attacks against the homes of two Socialist MPs' in the regional capital, Toulouse, caused considerable damage. The regular exchanges of molotov cocktails and tear gas grenades every Sunday at Golfech show no signs of abating; if anything, direct opposition is spreading. At Chooz, too, French and Belgian demonstrators clashed with the riot police, with serious injuries being reported. In January of this year, Superphoenix, the Creys-Malville Fast Breeder was damaged by five bazooka rockets in an attack later claimed by an "ecolo-pacifist".

This hardened opposition is the inevitable reaction of embittered people who see, yet again, that the anti-nuclear cause has been sold out. As long as nuclear dictatorship in France continues, the sane future promised and then betrayed by President Mitterand will only become more turbulent.

# Women Oppose the Nuclear Threat

Women from anti-nuclear groups all round Britain met in Bristol for a Conference of **Women Oppose the Nuclear Threat [WONT]** on 24/25 April.

We held discussions in small groups to share ideas on feminist views of nuclear technology, Peace Camps, relationships to other women in the anti-nuclear and peace movements and the alternatives to nuclear power. These were followed by discussions on the future activities over the coming months. 24th May is an international women's day of action with local actions up and down the country.

On Sunday 6th June women will head one of the three marches to the huge CND Rally at Hyde Park protesting nuclear weapons and especially Reagan's visit. We decided that women would make more impact if they wear purple and green. The women's section of the march will begin at Waterloo. Some women felt they would like an area of Hyde Park set aside for women and kids at the end of the march. WONT groups will be organising local actions on the 6/7th June to show how Reagan's visit threatens peace.

**Deirdre Armstrong**

The **WONT** network can now be contacted through **Bristol WONT, 31 Westbury Road, Bristol.**

**Women in SCRAM** continue to be the contact in Edinburgh. Following a suggestion at the conference, where we were given £35 in donations to our Fire Damage Appeal (thanks!), we shall make a separate women and nuclear technology section in the re-formed library. Contact us via the SCRAM Office in Edinburgh.

# Make Scotland Nuclear Free



Wales was declared a Nuclear Free country at the end of February. There are now plans for taking Scotland the same way. The groundwork was laid at a conference organised by Glasgow END (European Nuclear Disarmament) on 24th April.

Several hundred activists participated in morning workshops on Eastern European initiatives, Nuclear Free Zones, Weapons/Power links and Peace Education. In the afternoon we heard Angus McCormack from Stornoway in the Outer Hebrides outline the campaign to Keep Nato Out.

Icelandic MP, Olafur Grimson described the devious manner by which the U.S. has drawn Iceland, a country which has never born arms, into a web of increasing nuclear militarisation. Iceland, Greenland, Norway, the Faroes, Scotland and Ireland will all be threatened by US plans to site Cruise missiles on warships in the N. Atlantic. He asked Scotland to host an international conference next year to launch a campaign for a Nuclear Free Zone across N. Europe and the N. Atlantic.

**European Events**

Edward Thompson told of the growing links being made with E. Europeans at several levels, and stressed the need to nurture and support them. In Vienna from 6-9th August END are helping organise a massive Youth Peace Festival drawing young people from both Eastern and W. Europe. This will follow a Convention of Peace Groups in Brussels 2-4th July.

Peter Segger from the Welsh Anti-Nuclear Alliance (WANA) outlined their successful campaign to declare Wales 'Nuclear Free'. He urged us forcefully to take up a similar campaign and there and then the first links were forged by the many organisations present. In June Glasgow END, together with SCRAM, SCND and FoE Scotland will publish a campaigners manual on making Scotland Nuclear Free.

On 22nd August, at the end of the Peace March Scotland, SCRAM are organising a NFZ Campaigners Conference in Edinburgh. For a full report of the Glasgow conference send £1 to **Glasgow END, 146 Holland Street, Glasgow 2, 041-332-5960.**

European events contact **END, 227 Seven Sisters Road, London N4. 01-272-1236.**

Latest END Bulletin now out. Send 75p for sample copy to END in London.

# Consumers Hit Back


British Consumers may be paying too much for their electricity, because the Central Electricity Generating Board has a 'planning margin' which is too high, says an independent research study. The new report by Earth Resources Research Ltd is entitled **'Planning Margins and Security of Supply Standards - An International Survey of Electric Utilities'**. It was published in March. The authors conclude that the CEGB could reduce its 'planning margin' — the surplus generating capacity designed to safeguard consumers from blackouts — from the present 28% plus to 22 or 24%. This would give significant savings, they say.

The study surveyed planning margins and security of supply standards in nine utilities in the U.K., France, U.S.A. and South Africa.

The Electricity Consumers' Council commissioned the study after the Monopolies Commission report on the CEGB concluded that "... a reduction in the generation security standard... might perhaps be made without perceptibly affecting the standard of service provided."

The authors complain that, compared to the foreign utilities studied, the CEGB and SSEB provided little and inadequate information. Evidence suggests that supply interruptions are rarely due to generation failures — most arise from failures in the distribution system. But they say there is little scope for a lowering of the planning margin in the near future, due to the electricity boards policies — of large stations and all nuclear.

They note that an overcapacity of only 1% represents the equivalent of one AGR nuclear reactor for the present CEGB system.

**Available from EEC, 119 Marylebone Road, London NW1.**

# Wasters..

The Government's controversial plans for disposing of the long-lived high-level radioactive waste created in civil and military nuclear reactors are likely to face severe criticism from the government's own **Radioactive Waste Management Advisory Committee [RWMAC]** when it publishes its third annual report in June. This damaging blow to the credibility of the official nuclear waste strategy follows the resignation earlier this year of a senior member of the Committee in protest at the Government's decision to abandon its test-drilling programme.

Last December Local Government Minister Tom King unexpectedly reversed previous policy and dropped the test-drilling programme on the grounds that sufficient research had been done in other countries to demonstrate the feasibility of deep underground disposal of nuclear waste. In support of his decision he cited RWMAC's recommendation that serious consideration be given to the desirability of storing the waste in a solid form at the surface for 50 or more years to allow it to cool and decay. What he did not say was that RWMAC had also wanted the continuation of the test-drilling programme to discover necessary geological information.

## "Vulnerable and dangerous"

At its first meeting after Mr. King's announcement, RWMAC was unanimous in condemning the government's decision on scientific grounds. Subsequently the leading nuclear geologist, Dr. Stanley Bowie, revealed that he was resigning from the Committee because he believed that the government had made the wrong decision for the wrong reasons. He accused them of warping the Committee's recommendations and of bowing to political pressure at the expense of scientific investigation.

"They seem to be completely oblivious to the fact that increasing amounts of high-level radioactive waste will continue to build up and be stored at surface" he said. "No position could be more vulnerable and dangerous."

Virtually everywhere test-drilling has been proposed it has met with fierce local opposition on the grounds that it was likely eventually to lead to the dumping of actual nuclear waste. Anti-nuclear campaigners have consistently pointed out that it is politically impossible to work out a way of storing the long-lived wasted while more is being created every day in Britain's nuclear power stations. One Scottish anti-nuclear group has pointed out that the government's change of heart may not be entirely unconnected to the fact that each one of the next nine test-drilling applications would have been for sites in Conservative-held constituencies, including that of Mr. King himself.

## New dumping facilities?

The Government now also faces severe problems with the disposal of the much larger volumes of low and medium level radioactive wastes created by the nuclear industry (see table). The government is preparing a White Paper for publication this year. It appears that they will propose construction of four or five new facilities for low and medium level waste dumping by the end of the century. No doubt these plans will generate further controversy for an industry already criticised for continuing production of a highly toxic material with no safe method of disposal.

**Rob Edwards**

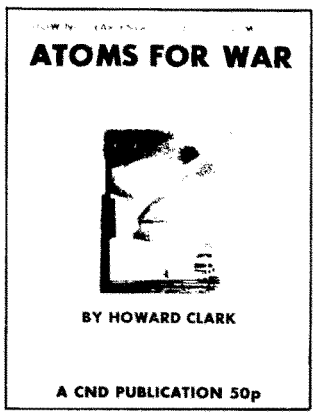
**Britain's Nuclear Wastes**

| TYPE | DESCRIPTION | CUBIC METRES PER YEAR TO END-CENTURY (AVERAGE) |
|---|---|---|
| Low-level | Trash that may be contaminated with traces of radio-activity | 20,000 |
| Medium-level | Radio-active solids and sludges | 2,000 |
| High-level | Radio-active liquors from reprocessing | 50 |

Source: Department of the Environment

CND

DEMONSTRATE
6th JUNE




# ATOMS FOR WAR
# By Howard Clark

"This pamphlet brings nuclear energy right into the disarmament debate"

Price - 50p + 15p postage per copy
From - CND ORDERS
227 Seven Sisters Road
London N4.

# CHP-Slow

National progress towards less energy wastage and warmer homes, using Combined Heat & Power (CHP) stations with district heating, is going extremely slowly. The engineers' reports mentioned in last issue will now be dribbled out privately to each of the nine cities being considered for a pilot study. Then, ages later a comprehensive report will be published.

There is clearly little real political pressure from the top for this promising and proven energy-saving technology. So we shall have to stir around at local level to inform the tenants and householders, the engineering and related workforces and the councillors and officials of the potential local social and economic benefits of CHP if it is locally owned and controlled.

This was the theme of a submission by the Information Service on Energy to the Commons Select Committee on Energy earlier in the year. Copies available from ISE, 11 Forth Street, Edinburgh 1. (30p inc.). You could also send for Friends of the Earth's submission — from Czech Conroy at FoE's new office, 377 City Road, London EC1. (50p inc.) and to SERA for theirs at 9 Poland St., London W1. (50p inc.).

Two new slide-tape shows — one explaining the CHP idea to tenants, the other for the Labour Movement, have been produced for the National **Jobs from Warmth** campaign. Contact Ken Ternent, TUSIU 'Southend', Fernwood Rd., Newcastle 2 for details.

appropriate energy

# Planning Ahead

SCRAM is currently working on a book on medium-term energy strategy for Scotland. We plan to survey present sources and allocations of energy; present the case for change; discuss the political, economic and institutional obstacles standing in the way; chart current progress on conservation and alternatives in Scotland; and look at a few selected towns and districts to find out what alternatives could be implemented there and what effects they could have.

We intend especially to stress the "regional" approach to energy planning, partly to make our argument more accessible, and partly because it needs to be demonstrated that what is appropriate to one area may not necessarily be suitable for another.

We are seeking advice from as many quarters as are willing and able to provide it, so if any readers have information and ideas which they would like to see included, please send them to the Alternatives Group, c/o SCRAM.

# THE COMPLETE ENERGY CONSERVATION SPECIALISTS

**TABLE 1**–House WITHOUT Warmfill System

| YEAR | ENERGY COST (£) |
|---|---|
| 1 | 750 |
| 2 | 862 |
| 3 | 991 |
| 4 | 1139 |
| 5 | 1309 |
| Total | 5051 |

*In this example all of this sum, i.e. £5051 has been burnt in the 5 year period. There is no continuing return on your outlay.*

**TABLE 2**–House WITH Warmfill System

| YEAR | ENERGY COST £ | GUARANTEED 50% SAVING |
|---|---|---|
| 1 | 750 | 375 |
| 2 | 862 | 431 |
| 3 | 991 | 495 |
| 4 | 1139 | 569 |
| 5 | 1309 | 654 |
| Total | 5051 | 2524 |

*In this example the WARMFILL system has not only HALVED the energy bill but has proved a continuing investment.*

and south to the English Midlands.

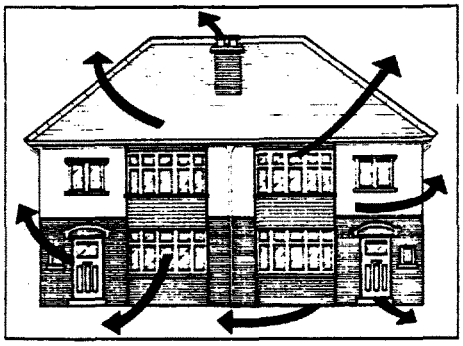
"We are most probably the only firm in the UK to offer such an extensive energy conservation service", says their sales marketing manager. "We also probably have more expertise, across the board, than any other company."

Not only are Warmfill products keenly priced as individual installations, he says, but they also offer a package in which the overall price is greatly reduced compared with single installations at market prices.

They claim that their individually tailored packages, which include the installation of solar panels, cavity wall, loft, pipe and tank insulation, cost only marginally more than what the average company charge for a solar system alone — and that such a package will reduce fuel costs by 50 per cent.

The tables above are based on a current energy bill of £750 per annum and demonstrate the effects on that bill of a 15% per annum increase over the next five years. The dramatic contrast between the two homes speaks for itself.

"It is important to remember that the cost of installing a heating system is normally only the thin edge of the wedge," says the sales manager. "Without giving considerable thought to energy conservation one would find that in a given period, say ten years, a lot of money had been burned.



*Above: where heat escapes from the house. The answer, insulate.*

"But if the correct efforts are made from the point of view of conservation, whether in homes, offices or factories, the savings made will more than pay for the initial installation costs."

What is more, he points out, the dearer fuel becomes, the bigger the savings.

He is a firm believer in solar energy — "You don't get bills from the sun" — and in the panels his firm market. These are produced by Don Engineering of Wellington, Somerset, who have recently installed one of the largest solar water heating projects in Europe, at Torbay District General Hospital, Devon.

This is the first substantial solar heating project in the National Health Service that has been an integral part of a new building and, according to the Torbay Health Authority, the giant £130,000 scheme should pay for itself within 11 years, saving an estimated 132 megawatt hours of conventional energy consumption a year.

Warmfill give substantial guarantees on all their products, both from the points of view of quality and efficiency. They stress, too, that since they are specialists in all aspects of conservation, a customer does not have to try to plan a scheme then struggle with an assortment of installation companies to have it completed. Not only will Warmfill do the lot, but, since they do, the overall profit margins are reduced considerably.

**YOU CAN USE LESS ENERGY!**

*If you want to know more about the WARMFILL Complete Energy Conservation Package, post this coupon now, and it will be our pleasure to discuss your individual requirements.*

WARMFILL

**44 St Ninian's Dr., Edinburgh EH12 0PQ.**

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Address _____

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FREEPOST GL6

# A Way Forward ?

**The renewable energy sources are now ready to be developed. The task that lies ahead is one of convincing the public and political institutions that they can be made to work in the foreseeable future, and on a scale large enough to represent a realistic alternative to nuclear power. This article, sent to us by Richard Baker, is concerned with how renewables might contribute to electricity supply. He argues that new institutions are needed. These should be regionally based, each with responsibility for one of the new energy sources.**

The renewable energy technologies in Britain are either still on the drawing board, or at the prototype model stage in universities and research institutions, or exist as small scale experiments. It is frequently assumed that after long drawn-out periods of research and development they will be handed over to the Central Electricity Generating Board (CEGB) and the South of Scotland Electricity Board (SSEB) — organisations heavily biased in favour of nuclear power. These Boards are not sufficiently geared to the promotion of the new and renewable technologies to get them off the ground.

To offer a credible alternative the renewables need to have their own separately managed and financed organisations. This proposal is not pie in the sky. It need not mean a remote centralised bureaucracy in London. In fact it has all been done before, and very successfully — in Scotland. I refer here to the achievements of the North of Scotland Hydro-Electric Board (NSHEB).

## Success Story

The large scale generation of electricity by water power was not new when the NSHEB was formed. Hydro-electricity first started in the 1890s, with two large schemes developed in 1930 and 1932. However, by the early 1940s progress was bogged down in wrangles over vested interests of landowners, coal owners etc. In 1941 a small committee was set up by the then Secretary of State, Thomas Johnston. It reported a year later and this led to the Hydro-Electric Development Act of 1943, and the new NSHEB was set up with Thomas Johnston as Chairperson. Their first major scheme was started at Loch Sloy in 1945.

The NSHEB is an independent public corporation, separately financed. Their prime activity is water-powered generation but the Act gave them the formal legal obligation "so far as their powers and duties permit (to) collaborate in carrying out any measures for the economic and social improvement of the North of Scotland district". Their achievements in the earlier years were considerable and they have developed enough hydro-power to supply all their own district and to export to the South of Scotland.

The success of the NSHEB illustrates what can be achieved by an organisation devoted to the development of one particular energy source especially suited to the region it serves. To get a substantial amount of electricity from renewable sources by the end of the century we need new organisations, each under some dynamic leaders, with not only appreciation of the technical needs, but also drive, political sense and skill. Each organisation should have the job of developing one kind of technology only — though with an obligation to collaborate with other energy institutions. They should be regional, not national, in scope and encouraged to engage in friendly, not destructive, competition.

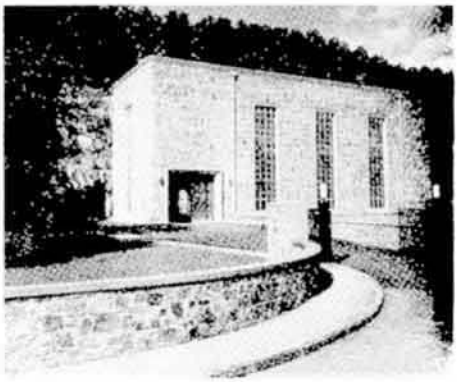


Photo: NSHEB

A 17MW Hydro station near Pitlochry - local power clad in local stone...

What a sensible Government would do, if we had another Thomas Johnston, would be to set up a Hebridean Wave Power Organisation to exploit say Stephen Salter's 'nodding ducks', a North East Scotland body for another system, one for Devon and Cornwall, another for Northern Ireland, and so on. They could distribute both locally and feed into the grid, just as the NSHER does.

The moral of the Hydro-Board story is that, however much research is done, practical achievement depends on political will and efficient small, stream-lined organisation dedicated to one particular type of job without distractions. It also demonstrates the difference between research and practical achievements. The original research and designs will probably come mainly from academics. But their development in practice depends on people who understand industrial organisation and how to get collaboration from trade unions, local authorities, farmers, engineering firms and all the other people without whom the best ideas will still remain in the laboratory.


●**Italy:** Ten 50KW aero-generators are under construction by Fiat as the first stage in a national wind generation programme. These initial ten units will be installed in Sardinia.

●**Geothermal Energy:** Southern Californian Edison along with an oil company are investing US $120 million in a pilot geothermal project in Imperial Valley, California. It is hoped that the plant will be operational by early 1990, providing 30MW for 45,000 houses in the area. It is reported that Southern California Edison now devotes their total R&D funding to 'alternative' energy forms.

●**Navigation Buoys:** A self sufficient air turbine powered navigation buoy is being sold by a Japanese company.

PARLIGAES March '82

●The world's first hydraulically compensated **compressed air energy storage system,** for use in supplying peak power generation is to start immediately and is planned to be completed by mid-1986. An American subsidiary of Cementation Ltd, a member of the Trafalgar House Group has been awarded a £26 million contract to design and construct the underground cavern system and shafts. Financial Times 29.3.82

●A coveted European diploma for nature conservation for the Peak District National Park, is likely to be lost if a proposed **pump storage scheme** in the **Longdendale Valley** goes ahead according to Dr. Peter Baum of the Council of Europe's Environmental and Natural Resource Division. There is a fear that the scheme "would have an adverse impact on the park's landscape and ecology."

The CEGB said that no proposals for construction of a reservoir in the Peak Park exist but that the Board were awaiting the results of a £1 million preliminary environmental study into the effects of a scheme.

Guardian 16.4.82

●A design study for the world's first commercial scale solar electrical generating station is near completion.

The study is a joint project by the U.S. giants McDonnell Douglas and S. Californian Edison Co. and Bechter Power Corporation.

The scheme envisages the use of fifteen sun-tracing mirrors, heliostats in two arrays to concentrate the sun's reflected rays on tower mounted heat exchangers. The heat generated would be used to create steam for a turbine to generate 100 MW of electricity. Construction of 'Solar 100' should start in 1984.

The first stage of a 5MW Soviet solar power station is to be commissioned in 1983. This station will have a high capacity hot water and steam storage to keep the station operating in bad weather and at night.

The Soviets are also doing a feasibility study for a 300MW solar station using four 250 metre high towers.

NATTA Newsletter April 82

# TIDAL POWER

**The first stage of the latest feasibility study into a Severn Barrage scheme for producing electricity from the tides is now complete. The Report issued last year says a scheme costing £5,660 million could produce about 6% of the nation's electricity. The cost per unit of electricity should be comparable with that expected for conventional plant. It recommends that further detailed studies be carried out — the next feasibility study would cost around £20 million, and take about 4 years to complete. The environment movement is divided, though, on whether or not to support this renewable energy project.**

The Severn Estuary is a natural choice for a tidal power scheme. It has one of the largest tidal ranges in the world, from 4 metres at the mouth of the Bristol Channel to over 11 metres at the Severn Bridge. The first proposal to construct a barrage to generate electricity was made in 1925, since when numerous schemes have been put forward.

The most recent proposal has come from the Severn Barrage Committee, chaired by Sir Herman Bondi, former Government Chief Scientist. The Report concludes that a barrage is technically feasible and proposes further study of the 'preferred scheme' — an inner barrage with the possibility of a second barrage being added at a later date (see diagram). Power would be generated on the ebb (outward flowing) tide, thus producing electricity during two separate periods per day. One hundred and sixty turbo-generators, each costing £5m, would be used to generate the electricity. Massive concrete boxes, called caissons, would be floated into position, each then housing three generators.

Sluice gates would be opened as the tide comes in, to allow water into the basin. At high tides the gates would be shut. Then once the tide has dropped on the seaward side to a suitable level below that of the basin, water would be allowed to flow out through the turbines. The amount of power generated would vary with the tides — Spring tides would produce almost four times as much as the Neap tides. It is estimated that 13 billion kilo watt hours could be produced annually — about 6% of the nation's needs — with a peak power output for an 8m tidal range of nearly 6,000 Mega Watts (roughly the output of five modern power stations).

The Report considered other schemes such as generation on the flood tide; generation on both the flood and ebb; and various double basin schemes making use of off-peak electricity to pump into or out of a second basin, but these were all discounted on, mainly, economic grounds. However, if the second barrage is added this would operate on the flood tide, thus giving electrical output four periods a day, rather than the two periods from the ebb tides alone. This additional barrage would take the cost of the scheme to £10,420m.

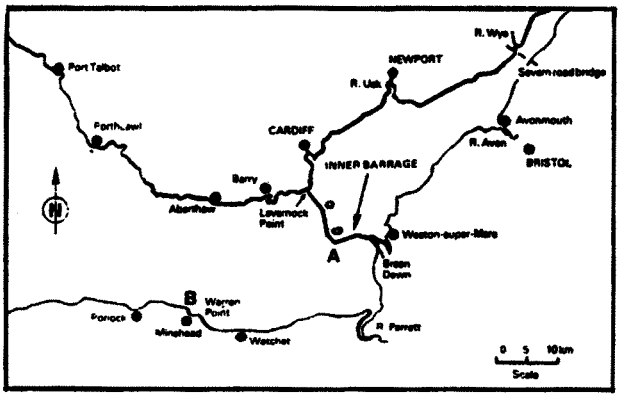
Locks would be necessary to allow ships to pass through the barrage. A controversial suggestion, though, by a leading consulting engineer involves the construction of new docking facilities for larger ships on the outside of the barrage to reduce costs on lock construction and dredging. This is sure to be opposed by the major ports of Cardiff, Newport, Bristol and Sharpness/Gloucester.

The full feasibility study that is recommended would concentrate mainly on clarifying the environmental issues. If we support this study it would keep the option open, without a commitment either way. But we also need to ask whether the £20m for the study might not be better spent on other renewable energy sources or on conservation.

**Here Rick Currie of Monmouth** FoE sets out the arguments for and against:-

## FOR

- The barrage could offer some environmental advantages. It seems likely that the flow of silt around the estuary would be reduced. There would be increased opportunities for leisure activities.
- Although energy conservation is today's priority, we will eventually need new sources of energy. The barrage would be a major renewable source, putting them firmly on the map.
- On centralisation — we accept hydro-electric plants, so why not tidal? It does not have to be controlled by a centralised body.
- The environmental impact would at least be confined to one place rather than spread around, as it would be with a greater number of smaller schemes.
- It would create desperately needed employment. Construction would take some 18-20 years and employ a maximum of 10,000, plus 6,000 employed indirectly. 500 permanent jobs would be created.




**Location of the proposed Severn Barrage. The first stage would be the inner barrage. A second barrage could be added later, running from the inner barrage to Warren Point, marked B.**

## AGAINST

- It is a large centralised power source with all the problems that entails ie. environmental impact during construction, power distribution network, and general inflexibility.
- We do not need more electricity — conservation is a much more important and cheaper option. £5.7 billion invested in a conservation/insulation programme would save as much, if not more, energy and create more jobs.
- The scheme would not replace base load (nuclear!) stations. A better option might be a series of small schemes on the Dee, Humber, Morecambe Bay, Merseyside, the Wash, Solway Firth, which together could generate as much power as the Severn scheme. Because of the geographical distribution around the coast these barrages would together provide a more even power supply, since the high tides occur at different times.
- Investing in the giant Severn scheme would pre-empt other renewable energy options.
- There would be considerable ecological impact.

# Reviews

## Whose Control?

**NUCLEAR ILLUSION AND REALITY by Lord Zuckerman, Collins £4.95.**

**"THE BAROQUE ARSENAL" by Mary Kaldor, Andre Deutsch. £7.95 [95p].**

Lord Zuckerman is a multilateralist. He believes in retaining nuclear weapons at a reduced level which he calls a "minimal deterrent". He has a very odd view of history. History, for him, appears to revolve around a small group of **men** (the only women mentioned in his book are those who checked out some background for him) who make major decisions of policy. The possibility of achieving any change outside this group never appears to enter his head. His hopes for disarmament are tied to the existing structures of power. The question of proper democratic control of defence policy is never suggested, in fact he dismisses E.P. Thompson and by implication END, CND and all other unilateralist groups as arguing exclusively on idealistic moral grounds; then he goes on to argue for his "minimal deterrent" as a realisable option.

His argument for multilateralism is weak: nuclear weapons will not go away (as long as defence is structured as it is now), so we must reduce in a balanced fashion until we reach a small number of warheads which each pose the threat of mutual destruction. In the meantime spend the money saved on nuclear weapons in building up conventional weapons inside NATO. But how do we maintain a small number of nuclear weapons without the arms race beginning all over again you may ask? Well — Lord Zuckerman has a solution. The arms race is not fuelled by anything other than defence scientists in their labs. They create more and more weapons and then lobby for their incorporation into defence policy. If these people are tightly controlled then there is no problem!

In contrast to Lord Zuckerman, Mary Kaldor in **The Baroque Arsenal** digs deep into the institutions which maintain the arms race. Building up from detailed research on arms in the UK, USA and what can be gleaned from the USSR she describes the processes which produce current "weapons systems". Weapons systems are at the heart of the arms race. They are not only the physical hardware but include the decision-makers, developers, support groups and operators associated with the hardware of mass destruction.

The complexity of these systems has grown enormously since World War II. The systems have grown "baroque". The products are immensely destructive, yet so specialised and sophisticated that their use is inconceivable for anyone outside the system.

Mary Kaldor describes how weapon systems pervade world politics and she outlines the crisis inherent in the ever escalating cost and destructiveness of weapons. This is one of the best books around on the arms race. **Stuart Anderson**
**[Technical Authors Group Scotland]**

## Energy Advice

**THE ENERGY GUIDE from Energy Advice Unit, 2 Bigg Market, Newcastle 1. £7 inc. p&p.**

**50 ENERGY SAVERS, C.A.T. The Quarry, Machynlleth, Wales. 40p inc. p&p.**

This winter's bitter weather has brought home to everyone the woeful state of so many of our buildings. Draughts whistle through doors, round windows; the frost reaches in to freeze unlagged pipes; old heating systems strain to supply heat pouring out through the roof and walls. Most distressing of all is the plight of the old and infirm, frequently housebound, who really need higher-than-average temperatures.

In the face of these problems, advice workers in the welfare agencies or voluntary organisations are often at a loss to know how to help. It seems that only a comprehensive national energy conservation and rehabilitation programme will alleviate the structural problems. We have to press for this while at the same time other aveneues have to be explored. One step in the right direction was taken by Newcastle City Council in 1979. Using Inner City Partnership funding, they set up an energy advice unit to help inner city residents on low incomes to tackle the problems of high heating costs. This unit produced leaflets, guides to heating systems, exhibitions, slide shows and gives help and advice to neighbourhood groups.

One part of this service is the publication of a detailed 'Energy Guide' for reference use in the dozens of advice offices and libraries in the city. The Guide deals with insulation grants, special needs payments, benefits, heating systems, disconnection, condensation, payment methods, and so on. It comes in loose-leaf A4 ring binders and updates are sent out quarterly. Though largely specific to Newcastle it should prove valuable to those who provide information and advice anywhere in Britain.

The Centre for Alternative Technology have published a 12-page leaflet on simple energy conservation methods that can be used by everybody entitled '50 Energy Savers Which Are..... Cheap To Use!' Although also apparently aimed at social workers, health visitors and people working with the elderly I really don't think it will be much use to them. It is partly a re-hash of Department of Energy 'save it' platitudes, partly light-hearted encouragement for the readers to change their attitudes to what is often portrayed as a mystifying technical domain. If definitely does fulfil its aim of providing cheap ideas for saving energy — many of those commonsense good-housekeeping tips cost you nothing. But somehow I feel we can expect more from C.A.T. with its professional and hard-earned practical experience in the simple DIY energy saving measures. Where are the practical tips and the warnings about potential problems and pitfalls?

At just 25p the leaflet itself is cheap and it could be useful for sparking off ideas in discussion groups looking at the subject for the first time. For me its too full of the "turndown the thermostat and wear two jumpers" outlook. Fine as far as it goes but not quite the stirring stuff which would encourage you, or enable you to go out tomorrow and buy and fit those few simple measures which would mean you'd be warmer and more comfy when the next artic spell descends.

**David Somervell**

Those books marked with postage in brackets are available from
**SCRAM 11 Forth St, Edinburgh**

**Mail Order**

## Local Actions

**COMMUNITY ACTION AND ALTERNATIVE TECHNOLOGY, NATTA, 1981. £2 [50p]**

Starting with the question, "Can we do anything useful at the local level?" This book, compiled from a conference organised by the Network for Alternative Technology and Technology Assessment (NATTA), shows that we can, and tells us how to do it.

Dave Elliott's introduction surveys a number of projects undertaken by local authorities and by ad-hoc groups, and suggests many ways in which local initiatives can be built into a national movement. As he points out, local campaigns are vital. But if the benefits of insulation, conservation and safe energy are to be distributed fairly, governments will have to be made to respond to pressure and example from below.

In the most fascinating section of the book, three local energy groups describe how they got started and what they have achieved. Most impressive is Brian John's account of the Welsh Newport and Nevern group, who in a single year mounted an energy exhibition, started a library, initiated a homes insulation scheme, got a school draughtproofed and drew up plans for insulating other local buildings. They pressured the local authority to write energy conservation into its structure plan and embarked on a wood coppicing scheme. This group has 200 members — an impressive ten per cent of the local population. Lewes Energy Group in Sussex started out with the more modest ambition of spreading information, but also intend to start a practical project. South Brent in Devon began with a loft insulation project but have already branched out into energy auditing and information schemes.

The rest of the book has an excellent step-by-step guide to setting up an energy group and lists of alternative energy literature, hardware, and supplier contact addresses.

The book is packed with useful information — though unfortunately the suppliers contacts section has no particular order. There is no index or proper pagination, and the introduction could have been edited to eliminate repetitions and eccentric punctuation and spelling. NATTA fans will forgive these faults, knowing that they stem from lack of time and money.

Finally, the book concentrates mainly on rural and small town developments — a parallel report on urban campaigns is forthcoming. **Karen Tosh**


The ongoing **SAFE ENERGY Petition** is now being run by Norwich ANC. Petition Forms available for an S.A.E., address labels for 80p/100 from:

**ANC, 5 Unthank Road, Norwich.**

They have also printed a very bright A2 poster: **Stop Sizewell - No PWR for Britain.** 50p each, 5 for £1.50, 10 for £2.50 (post free) from them, or the national office:

**ANC, PO Box 216, Sheffield.**

A 50 page booklet on the local application of Combined Heat and Power with District Heating is being prepared by members of Brighton ANC. They have asked interested people to send a £1 note to ensure they have enough money to print it and guarantee you a copy hot off the press.

**Brighton ANC, 53 Gloucester Road, Brighton.**

**Accommodation in Scotland** needed for family of 4. Anything and everything considered. Write to Isabel Ragni, 88 Longhill Road, Huddersfield, W. York.

# THANKS !

SCRAM would like to convey our heartfelt gratitude to all of the people who contributed so generously to the Wages Appeal in the last Bulletin. It is because of the generosity of:

Margaret Allison, Jonathan Barkas, Peter & Carole Dickson, Alistair Easton, Tony Hardman, Robert Hodgart, Roger Hurcombe, Helen Jackson, Susan Leckie, Frank Ledwith, Mrs McCarry, F.H. Neville, Rosemary Stratton, Steve Williams

and many others that were able to give better financial support to our few paid workers. Thank you all.

We should explain here that we as a campaign are only able to provide the service we do due to the amazing amount of entirely voluntary work done by people in and around both the office and the Smiling Sun shop where the Mail Order Service operates.

The move to 11 Forth Street, Edinburgh 1, is all the more exciting because it will bring us all together in more spacious surroundings. We hope friends and supporters will call by and visit if you are in Edinburgh over the summer.

We have been overwhelmed by the spontaneous offers of support, both practical and financial to our Fire Damage Appeal. To date we have received donations, books, papers, back issues, offers of equipment and more from the following:

Aberdeen Peoples' Press, Atomic Times, Robert Blackith, Cambridge FoE, East Anglia Alliance Against Nuclear Power, Energy Manager, FoE Ltd, Grass Roots Books, Highland Anti-Nuclear Group, Arnold Hendry, Iona Community, Keep NATO Out, Frank Ledwith, The Leveller, Angus Lyon, Medical Campaign Against Nuclear Weapons, Menard Press, Natural Energy Association, Neighbourhood Energy Action, No Nukes Music, North Herts FoE, Open University Energy Research Group, Walt Patterson, Pluto Press, Bob Poole, Radical Scotland, SANA Scotland, Scottish Fuel Poverty Action, SERA, Kelvin Spencer, Rosemary Stratton, Town & Country Planning Association, Tynecastle Anti-Nuclear Campaign, WISE, Jamie Wooley and dozens of others.

**Both Appeals are still open and we invite your support for them!**


**New Anti-War L.P.**

No Nukes Music present 12 fantastic new tracks from top bands — plus free poster. Get the message out to young people!

Distributed by Rough Trade. £2.99 retail, 10 for £22 to peace groups from **CND Sales, 227 Seven Sisters Road, London N4.** Enquiries to **NNM** on 01-486-4564)8713.

# Adverts

As you see this issue carries a number of advertisements, both large and small. These have enabled us to include the special free Nuclear Weapons & Nuclear Power broadsheet.

We invite you to advertise in our pages - it's a form of support and a way of getting to thousands of activists.

**Classified Advertising Rates** 10p/word minimum £2 PREPAID, or add £1 invoice charge. Display ads, artwork and inserts-prices on application.



Route of PMS82

Dear Friends

The peace and disarmament movement and the ecology/conservationist movement have now moved so close as almost to have fused. At least there is complete harmony. Your campaigns have convinced us of the truth about the so-called peaceful uses of atomic energy. The corollary has been just as inescapable, in that in saying "No" to the power that fuels the bombs you have to tackle the politics which makes the bombs desirable.

This has been exemplified in recent experiments, first on the Copenhagen to Paris Peace March (June to August 1981) when the Green Peace Party were prominent, and now in the preparations for Peace March Scotland 1982, in which your movement is strongly represented.....

Yours sincerely,

Keith Bovey
Chairman, Scottish CND

# Discord

The Department of Energy looks set to virtually abandon all new expenditure on research and development into renewable energy. This staggering move is urged by ACORD, the Advisory Committee On Research & Development for Fuel and Power.

This committee is stacked with energy supply interests including the Atomic Energy Agency, CEGB, Electricity Council, BP and Esso, GEC Ltd., National Coal Board and British Gas. So it's hardly surprising that they recommend that "no new development work on wave power should be supported from the Dept. Energy R&D budget" and that investigations into offshore wind power generation "could be dropped from the programme for the time being."

ACORD advocate cutting research on solar water and space heating, cutting research on bio-fuels from 'energy' crops and, **New Scientist** suggests, scrapping tidal power. (See page 13). The few onshore wind power projects can continue along with some geothermal energy research. Investigations into passive solar heating of buildings should receive a modest amount of support, they say.

Current funding for all the renewable energy sources is about £16m, in contrast to the £180 million plus on nuclear research. ACORD proposes that renewable R&D be cut to £11 million for the next two to three years. Shocking eh!

# URGENT!

This issue marks the fifth anniversary of the **SCRAM Energy Bulletin**. We enter our 6th year with a special request to **YOU our readers.** We desperately and urgently need MORE SUBSCRIBERS. Please consider persuading a friend to subscribe; or giving a gift subscription; or even subscribe yourself. We'll explain why:

Just now we have nearly one thousand subscribers — nearly half in Scotland, half in England & Wales and several dozens from as far afield as Greenpeace Hawaii. About the same number again is sold in shops and on bookstalls.

## Why Subscribe

While recently we have regrettably had to raise our cover price to 40 pence, for shop sales we receive only 20p of this, the shop and distributor getting 10p each. This does not really cover the unit cost of production on the small print-run we do. So thus it is our subscribers who sustain the magazine and the Campaign.

## Our Income

About a third of our income comes from subscriptions; a third from regular donations, generally by Bankers Order; and a third from sales of campaign materials and books. All this is used for our campaigning and publishing work. Our separate **Wages Fund** helps cover expenses for a very few of us. All the rest of our work is voluntary. But I digress — there are great plans for the Bulletin:-

The next issues of the **SCRAM Energy Bulletin** will, like this one, contain special free broadsheets. The first, produced for the Sizewell Co-ordination will give the background to the Sizewell PWR. The second is planned to be an Insulation and energy conservation, and the third a major review of the Issues at the Sizewell Inquiry. So you'll be getting your money's worth as a subscriber.

## Special Book Offer

To further encourage you to **join SCRAM** we are making a special pre-publication offer on Rob and Sheila's book — **Fueling the Arms Race**. For only £1.50 extra we will send this book post-free to all **new Supporting Members** who join SCRAM before the 17th June publication date. The book, value £2.95, forms the basis of this issue's special Weapons/Power broadsheet and it's good.

Scottish Campaign to Resist the Atomic Menace,
**SCRAM, 11 Forth St., Edinburgh EH1 3LE**

Name:.....

Address:.....

.....

Tel:.....

I enclose total £ including:-

☐ **£1 for Nuclear Information Pack.**
☐ **£ Special Donation** to your Fire Damage Appeal.

☐ **£7 Supporting Membership** - receives SCRAM Energy Bulletin plus 6-monthly Members Newsletter.
☐ **£1.50 Special Book Offer** for new Supporting Members joining before 17 June 1982.
☐ **£5 SCRAM Energy Bulletin** only
☐ **£7 Foreign subscriptions**
☐ **£10 Institutions**
☐ **£30 Life Membership**
☐ £50 Household Life Membership.

# Hopping Back

Little Black Rabbit was very touched to receive the get well card from her admirer, Owen. She is pleased to say she is fully recovered and now has many tales to tell.

While recuperating in the hills, Little Black Rabbit had her eyes opened to the resourcefulness of that strange breed called Geologists. Certain Geologists have given themselves a bad name by involving themselves in surveys for sites to bury all that nasty radioactive waste. Nowadays farmers tend to chase off any Geologists. So how can the genuine ones go about their business? One answer it seems, is to put a large Smiling Sun sticker, saying Nuclear Power? No Thanks, on the side of your landrover.

Little Black Rabbit should know, because she was almost run down by one of these new style geological survey vehicles.

Recovering from her near escape, she thought how silly of farmers to dislike Geologists. After all, plans to bury the waste have been cancelled... or have they? In the rabbit warren by the fence at Windscale she learnt that other Geologists are involved in test-drilling under Windscale. They want to see if it is possible to dump 'medium' level radioactive waste there. It should be easy, as there are no farmers to chase the Geologists off the Windscale site.

The plan appears to be to drill down at an angle so the waste would be under the Irish Sea. One problem is that water flows through the sandstone rock fairly quickly. But the flow is out to sea, so it is only the poor fish that might suffer — and rabbits do not eat fish — so that's fine!

Returning to Scotland on the First of April, Little Black Rabbit found a press release from SCRAM in her mail.

It announced that Torness power station was cancelled, and SCRAM workers were to be made redundant. Little Black Rabbit was so concerned that SCRAM might be out of a job that she rang up the South of Scotland Electricity Board in Glasgow to confirm the news. They said they had received many calls that day asking the same question. But they were very reassuring — they had no intention whatsoever of cancelling Torness, at least not until April 1st 1987.

Little Black Rabbit hopped off to the SCRAM offices to break the news. Her reception though was a touch warm for her liking. Her ears were singed for her trouble. Maybe rabbits should stick to recuperating in the country.

Little Black Rabbit
XX.

# Events

**THURS. 27 MAY - SAT. 5 JUNE**
**Cardiff - Brawdy** — 2nd Women for Life on Earth march.

**SATURDAY 5 JUNE**
**Brawdy** — Demo against U.S. Base Contact 023-973-485
**London** — ANC Steering Ctee. Mtg. Contact 0742-754691

**SUNDAY 6 JUNE**
**London** — National CND Rally Contact local group or 01-263-4954

**MONDAY 7 JUNE**
**New York** — U.N. Special Session on Disarmament starts. Runs until early July.
**Britain** — Demonstrations against Reagan's visit.

**SATURDAY 12 JUNE**
**New York** — All USA Disarmament Demonstration

**SATURDAY 19 JUNE**
**Cardiff** — Welsh Conference against the Bomb. Contact Owen Hardwick, 35 Kings Mills Rd., Wrexham, Clwyd.

**WEDNESDAY 30 JUNE**
**London** — Seminar on Energy Conservation, Economic Growth & Employment at S. Bank Poly Centre for Energy Studies: Contact 01-928-8989, ext. 2468

**SATURDAY 16 JULY**
**Inverness** — Peace March Scotland starts. Contact 031-336-1631

**SUNDAY 8 AUGUST**
**U.S.A.** — Demonstrations against their Trident.

**SATURDAY 21 AUGUST**
**Edinburgh** — Last day of Peace March Scotland to Rally on the Meadows. Contact 031-336-1631

**SUNDAY 22 AUGUST**
**Edinburgh** — Nuclear Free Scotland Campaigners Conference. Contact SCRAM.

**SUNDAY 5 SEPTEMBER**
**London** Anti-Sizewell 'B' march starts, arriving in Suffolk 17th September for a Rally.

# Nuclear Weapons & Nuclear Power

NUCLEAR WEAPONS = NUCLEAR POWER  BETTER ACTIVE TODAY THAN RADIOACTIVE TOMORROW  NUCLEAR POWER = NUCLEAR WEAPONS

The nuclear power industry has long argued that it is possible to separate the civil and military uses of the atom. It has done so for quite understandable reasons — nuclear scientists are still recovering from the collective guilt which assailed them after Hiroshima and Nagasaki. They are anxious to prove that there is some good to be had from splitting the atom. But as nuclear disarmers have grown from a small group of easily-ignored radicals to a popular mass movement with real political clout, so the political and propaganda dangers of a close association between nuclear power and nuclear weapons have increased.

The industry has been aided in its efforts by two important organisational changes. In 1971 British Nuclear Fuels Ltd was set up to run the UK Atomic Energy Authority's (UKAEA) nuclear fuel business. It took over operation of all the sites built for military functions — Springfields, Capenhurst, Chapelcross, Calder Hall and, most important of all, Windscale. Then, two years later the UKAEA's Aldermaston Weapons Research Establishment was handed over to the Ministry of Defence.

These changes made it easier for the public relations men to display a difference in the technology for nuclear electricity and nuclear warheads. But, let us be in no doubt, they lie. As we demonstrate conclusively on the following pages, nuclear power and nuclear weapons share the same history, the same technology and have the same frightening social and political implications. The nuclear power industry is, in sum, contributing to an increased risk of nuclear war.

The hypocrisy of the industry's position is nowhere more clearly seen than in the plan to sell plutonium to the United States. Ever since 1959, as part of a secret defence agreement, Britain has been sending plutonium to the U.S. for use in its weapons programme. In exchange Britain received highly-enriched uranium for military use.

How much plutonium has been transfered is an official secret, but we are talking about several tonnes — several hundred bombsworth. Some of the plutonium probably came from the nuclear 'power' reactors at Calder Hall and Chapelcross and some from nuclear power stations run by the Electricity Boards. The government claims that no plutonium has been sent in recent years, but the defence agreement which enables the swop to take place was renewed in 1979 to last until 1984.

On top of this, it has now been agreed 'in principle' to sell the US some of Britain's so-called civil plutonium. They say it is for use in their Fast Breeder Reactor programme but this deal would undoubtedly assist the US weapons programme by enabling them to divert US produced plutonium to weapons use. It has run into fierce opposition within the industry. Extraordinarily, the Electrical Power Engineers' Association, which represents nearly all the white-collar staff in the nuclear industry, recently threatened to withdraw support for nuclear power development' if the deal goes ahead. They believe it blurs the 'distinction' between nuclear power and weapons.

## The Plutonium Connection

One of the most contentious nuclear weapons developments on the horizon — Government plans to buy the Trident II Submarine launched ballistic missile system are also clearly linked to the 'civil' nuclear industry. The submarines are to be powered by a new design of Pressurised Water Reactor. This has been developed and tested by Rolls Royce at Dounreay, North Scotland, on a site adjacent to the UKAEA's Prototype Fast Reactor. Rolls Royce and the UKAEA have in fact long co-operated in this and similar projects. The plutonium and tritium for the Trident warheads — which are definitely going to be made in Britain — are destined to come from the 'power' reactors at Calder Hall and Chapelcross.


The most striking aspect of the Trident II proposals is, curiously, their cheapness. Even at £7,500 million Trident is a bargain. Certain fees have been waived by the US and the research and development costs are fixed in real terms. British firms are also being allowed to compete with US companies for Trident contracts. So why is the US being so generous?

The answer is that an unacknowledged part of the trade-off is the promise to sell the US our surplus plutonium. **The Sunday Times** report which accurately predicted the details of the Trident II decision, also said that the plutonium deal was an implicit part of the arrangement. When this point was put directly to Prime Minister Mrs Thatcher, she denied it — but then she would. She cannot afford the acute political embarrassment that would result if it were admitted that the nuclear power industry was really working hand-in-hand with the nuclear weapons industry.

She could not cope with the respercussions if it were realised that plutonium created in the electricity boards' power stations was helping both the American and British governments to augment their already fearful nuclear arsenals. So nuclear disarmament does not end with banning the bomb.

Nuclear Power for Beginners

# Nuclear Fuel and Nuclear Weapons Industry

## Nuclear Links

Nuclear power was born of the British and American wartime efforts to develop the atomic bomb. The two have since remained inextricably linked. British scientists returned from the wartime Manhatten Project to create Britain's very own atomic project. Although the possibility of generating electricity using atomic fission was known, the first British atomic programme was solely for making bombs.

### Military Sites

All the sites and factories now part of the 'civil' fuel chain, were originally built for the military weapons programme. When the UK Atomic Energy Authority (UKAEA) was set up in 1954 it was practically given all these military sites. This was a massive subsidy — in today's prices over £1 billion. The UKAEA continued to run both civil and military programmes until the weapons work was transfered to the Ministry of Defence (MoD) in 1973. Many UKAEA staff came from the early bomb project. Some then moved into the civil side of the UKAEA and then into government departments responsible for nuclear power or defence.

> *"Civilian nuclear power is the public front for military nuclear weapons."*
>
> Tony Benn to the Select Committee on Energy, 1981.

### BNFL

Another institutional link between the power and weapons programmes was forged by the establishment in 1971 of British Nuclear Fuels Ltd (BNFL). The MoD is a major customer for one of BNFL's products — plutonium. This comes from facilities that are integral to the nuclear power programme. All BNFL's facilities are dual-purpose, as seen opposite, and BNFL must be regarded as a key component of Britain's nuclear weapons establishment.

### Secrecy

When BNFL was set up, the government stressed to Parliament that it would not be publicly accountable because of its 'defence' commitments. The notorious 'veil of secrecy' over the nuclear power programme which inhibits a full public debate, comes from the links with nuclear weapons.

### Chapelcross

Four 50MW reactors were originally built to provide plutonium for military purposes. They were later 'promised' to produce mainly electricity, certainly prior to, and probably since 1964, plutonium from Chapelcross has gone into nuclear warheads. BNFL however promote it as a purely civil establishment.

Chapelcross also has the vital military function of producing a continuous supply of tritium — essential for the trigger of H-bombs — by irradiating lithium inside the reactors. The tritium separation plant was completed at Chapelcross early in 1980.

### Calder Hall

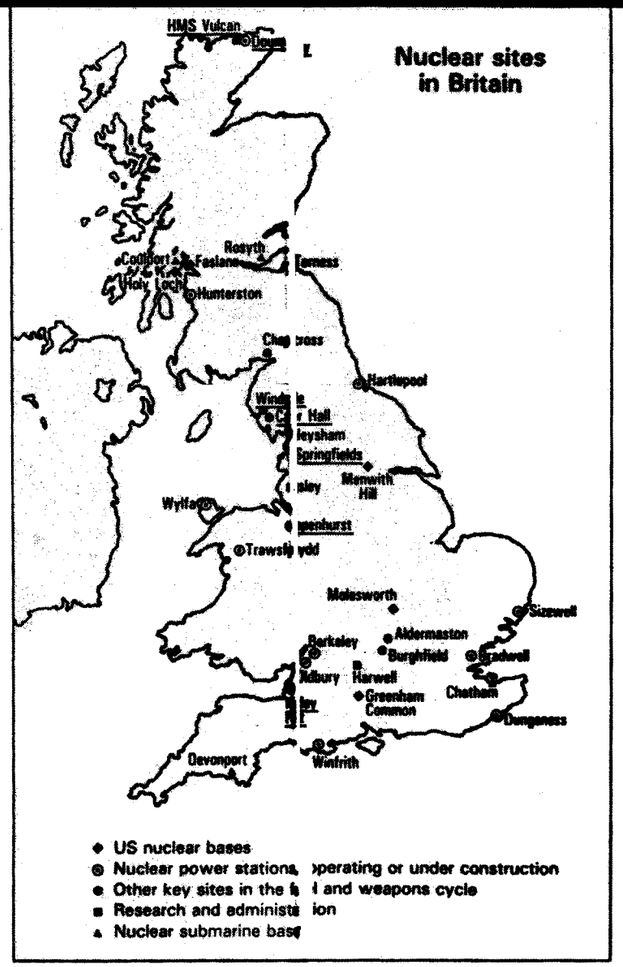
Hailed on its opening in 1956 the world's first nuclear power station, Calder Hall was in fact built to supply plutonium for the military. Like Chapelcross it is probably still contributing to military stockpiles. It is not controlled by the Electricity Boards and thus not a 'civil' nuclear power station.

### Windscale

All the plutonium for Britain's nuclear warheads has at one stage passed through Windscale. This reprocessing factory is, according to the BNFL "mainly for civil purposes". In other words it has a military function.

Nuclear warheads have a 'shelf-life' of only 10-20 years. After this the plutonium 'fuel' or explosive has to be cleansed of the radioactive decay products. This is done at Windscale by reprocessing the plutonium in the warhead to take out the poisons. At the 1977 Windscale Inquiry BNFL admitted that two thirds of the radioactive plutonium and all the deadly americum discharged into the Irish Sea came from operations which they would not identify "for security reasons".

Windscale also stores the spent fuel from Britain's nuclear submarine fleet. Only part of this has been reprocessed. Some of the high level waste stored in Windscale's huge silos will have come from the military programme, but they won't say how much. The new radioactive waste treatment complex announced by BNFL in 1981 will also deal with military residues.




### Hinkley Point

In 1959 the Government announced that the Magnox nuclear power station at Hinkley Point would be 'modified' to produce military-grade plutonium. Two years earlier the disastrous fire at Windscale had brought plutonium production there to a halt. A new supply was required because Chapelcross had not yet been completed.

In 1981 the present government denied that the power station had ever been used for military purposes. However it is probable that plutonium from Britain's Magnox reactors has been assigned to the military.

### Dounreay & HMS Vulcan

In 1960 the UKAEA revealed that their remote research laboratory at Dounreay had been providing facilities, called HMS Vulcan, for the Royal Navy. Then in 1965 a small Pressurised Water Reactor (PWR) was commissioned — a prototype for the new generation nuclear submarines. A large testing facility is now being built for the larger PWR needed to power the Trident submarines.

The fuel for the experimental Fast Breeder Reactor (FBR) at Dounreay is effectively the same as the 'fuel' for atomic bombs. Each shipment of spent fuel — plutonium nitrate, from the Dounreay FBR to Windscale is carrying enough plutonium for tens of bombs.

### Springfields

This fuel fabrication factory provides nuclear fuel for Chapelcross and Calder Hall. It also produces uranium hexafluoride to feed the Capenhurst enrichment plant. It thus has a military role, which will be increased if the Capenhurst submarine fuel facility is built.

### Capenhurst

The uranium enrichment factory at Capenhurst provided the highly enriched uranium for Britain's first H-bomb test in 1957. It was closed down in 1963 as cheaper supplies became available from America under the 1959 agreement. It was then converted to production for 'civil' reactor fuel.

Gas centrifuge technology has since been built at Capenhurst by URENCO, an Anglo-Dutch-German consortium in which BNFL has a third share. Centrifuge enrichment is a particular proliferation risk — even John Hill ex-head of UKAEA has admitted that it is easily adaptable for military purposes.

A new centrifuge enrichment factory was announced in 1980 to provide fuel for nuclear submarines. As the degree of enrichment for submarine reactors and nuclear weapons is similar, it is possibly intended to make nuclear weapons grade material. In 1981 work on the factory was delayed — obstensibly because of 'expenditure cuts'. More likely it is due to the signing of a 5 year contract with the US to supply highly enriched uranium.

## Proliferation - or Atoms for Peace?

The 'Atoms for Peace' programme President Eisenhower promoted in 1959 offered technical and financial assistance to countries interested in developing nuclear power. Some 26 research reactors were virtually given away.

Thirty years on, the spread of 'peaceful' nuclear technology has given many countries the capacity to make nuclear weapons. This proliferation has occurred despite the existence of international 'watchdogs' — the International Atomic Energy Agency (IAEA) and Euratom, and the Nuclear Proliferation Treaty (NPT). Many countries claiming that they were developing a civil nuclear power programme were in fact using the plutonium produced to make nuclear weapons, or adapting their reactor fuel enrichment plants to make weapons-grade uranium. Since the NPT came into force in 1970, India, South Africa, Israel, Argentina and Pakistan, amongst others, have become or are about to become states possessing nuclear weapons.

### Watchdogs?

Plutonium produced in power reactors may be used for weapons, despite official claims to the contrary. Though 'reactor-grade' plutonium may be less efficient and stable, scientists in the U.S. have tested a nuclear device made from such plutonium. In any case, power reactors can be run to yield higher-grade plutonium merely by replacing the fuel more often, or by placing natural uranium in some of the fuel rods. This can be done without the IAEA being alerted. Two IAEA inspectors recently condemned the safeguards systems as being totally unable to detect such military manipulation.

Western countries have sold nuclear technology around the world, sometimes without insisting on the safeguards required by the NPT. Competition is fierce. Flagging domestic nuclear industries need shoring up and relaxing proliferation controls has sometimes ensured orders.

Non-nuclear weapons states are refusing to relinquish the nuclear weapon option precisely because weapons states have not disarmed. They clearly see the military and political status afforded by possession of nuclear weapons.

Proliferation will only be controlled by nuclear disarmament **and** by dismantling the entire nuclear power industry.

## Towards a Nuclear Free Future

Nuclear power and nuclear weapons are inseparable. The proposals to build Trident and accept Cruise missiles and to expand the nuclear power programme should be seen in the same context, and simultaneously opposed. If Britain were to dismantle its nuclear arsenal but retained its nuclear power programme, the industrial basis for producing plutonium and enriched uranium would still exist. Plutonium could still be exported to the United States of America, and any future British government could make nuclear weapons again within days. Disarmament which did not include abandonment of nuclear power would always be uncertain.

Permanent and total disarmament requires that all nuclear technology is seen as potential nuclear weapon technology. International trade in civil nuclear technology results in nuclear weapons proliferation. So any campaign to achieve disarmament must fight nuclear power alongside nuclear weapons.

> *"... in the last analysis there is no such thing as the civil atom or the military atom."*
>
> Sir John Hill in ATOM, 1979.

# Further Reading

**Much of the information in the Broadsheet has been taken by Sheila Durie and Rob Edwards from their fascinating new book - ''Fueling the Arms Race'' published June '82 by Pluto Press. Here we review three recent pamphlets which are essential background reading:-**

Many CND groups remain undecided on the link between nuclear power and nuclear weapons. A vociferous minority of CND members maintain that there is no connection between the two. However a new CND pamphlet **'Atoms for War'** by Howard Clark establishes the link beyond any doubt.

In the first section a straightforward history of the UK programme describes how the decision to go ahead with nuclear energy was taken as a step towards a weapons programme. It goes on to describe the design of Calder Hall and other Magnox stations and how they have been used as the main supply of fissile material in this role. There is a good discussion of the subsidy of nuclear energy by the MoD to ensure a continuing supply of plutonium.

The second section covers the international scene. The ineffectiveness of regulation, the ease with which fissile material can be obtained and the requirement of developed countries to export nuclear technology to offset development costs are explained. The most convincing argument is that the cheapest way to get a weapons capability is to establish a civil nuclear fuel cycle. The subsidy from developed nations makes this much cheaper than building a "stand alone" uranium enrichment plant.

For me the best part of the pamphlet is relegated to Appendix 2. There calculations on the amount of plutonium which should be stockpiled at Windscale are given. The mismatch between the declared stockpile and what has been reprocessed amounts to 20 tonnes — enough for 4000 warheads! The only way to use that much is in a weapons programme.

In places the pamphlet gets carried away in technicalities but the message is clear — nuclear power and nuclear weapons are interdependent — you can't have one without the other. **Stuart Anderson**
**[Technical Authors Group, Scotland]**

With mass unemployment, the collapse of industry and the decline of public services, it is easy to fall into a trap of thinking that jobs in the defence and nuclear power industries should be preserved — at least for the present. But absolutely vast sums of money are required to build Trident submarines and nuclear power stations. This uses money which could be better spent elsewhere in the economy and employment opportunities are actually lost. This is why the Peace movement in Britain has now begun to debate the concept of 'socially useful work'.

An important contribution to this debate is a pamphlet called **"Jobs for a Change — Alternative Production on Tyneside."** As heavy engineering and shipbuilding continue to decline on Tyneside military work is assuming growing importance. However, armaments production is also becoming increasingly capital-intensive. The concentration of military spending on a few sophisticated weapons means that the remaining jobs are vulnerable.

Tyneside is the home of NEI-Clarke Chapman, who are building boilers for Torness and Heysham, and NEI-Parsons who are making turbine generators. Shipbuilders Swan Hunter build nuclear waste carrier vessels. All these firms have had a steady stream of redundancies in the last few years.

## Socially Useful Production

Conversion from military and nuclear energy production would generate a new set of priorities with the goals of full employment and socially useful production. Many of the new products which the defence industry could produce are related to energy.

The pamphlet shows that Conversion is not just a pipe dream, but a realistic option which must be grasped if jobs are to be saved. If we are to achieve disarmament, our proposals will only be taken seriously by Britain's workforce if civilian work can be guaranteed. Although the pamphlet has concentrated on Tyneside, the idea of alternative production is applicable to all regions, and hopefully it will encourage others to write alternative plans for their areas.

For what you don't know about the government's arms spending and the schemes of arms manufacturers in your area, you'll need a copy of the new CIS Report: **'War Lords - the UK Arms Industry'**. Whilst other areas of public expenditure are being cut, defence spending is on the increase. But Parliament does not discuss most of these increases. In the financial year 1981/82 Britain will have spent £12.6 billion on the military; that is 11.5% of total government expenditure — more money per person than any other NATO country.

## The Armaments Barons

Armaments production, and the jobs that provides are a central feature of the UK economy. Much of the high priority research in Universities, is directed towards military objectives, and a large part of the growing electronics industry has a military application. However increased weapons spending does not create more jobs — employment in the arms industry is falling overall.

The planned Trident Submarine represents just one part of Britain's money-eating nuclear arsenal. The Tornado aircraft, for example, will have cost more than the Government originally planned to spend on Trident.

Living standards are being savagely reduced throughout the West, so many people are beginning to ask why we need to spend such vast sums of money for our 'security'. This excellent Report contains some of the answers. **Pete Roche**


**FUELING THE ARMS RACE** by Sheila Durie and Rob Edwards, Pluto Press. £2.95 (30p).

**ATOMS FOR WAR** by Howard Clark, CND. 50p (20p).

**JOBS FOR A CHANGE** by Newcastle ANC & CND. 60p (20p).

**JOBS FOR A CHANGE** by Newcastle Trades Co, Tyneside ANC & CND 60p (20p).

**WAR LORDS** - CIS Report on the UK Arms Industry. 95p (25p).

This broadsheet is the latest in a series which, along with the current **SCRAM Energy Bulletin** makes SCRAM's **Nuclear Information Pack.**

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