SCRAM

NUCLEAR POWER? NO THANKS

The Anti Nuclear & Safe Energy Journal

Reports on-
Dounreay,
N Atlantic,
Wyhl &
Sizewell.

№35 40p.

Looking for trouble?

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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.

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Help needed

The work of our campaign is continually expanding, and this puts a heavy strain on the people working at Forth Street. **So we are looking for one or more people to come and help.**

There are a great many things to do, campaigning against the Atomic Menace!! Simple things like stuffing envelopes are as important as the editorial and design work of this magazine. Some of us work developing the SCRAM library and some of us in the Smiling Sun shop.

So if you have some time to offer please come and give us a hand. We can pay expenses. All the work done is important. **If you're interested please get in touch or come to one of our Monday meetings at 7.30 here at Forth Street.**

Thanks, SCRAM.

Comment.

BETTER ACTIVE TODAY THAN RADIOACTIVE TOMORROW

This Spring has already seen an amazing number of non-violent direct actions at both nuclear weapons bases and 'civil' nuclear facilities.

The emphasis on weapons is fair enough but no-one must forget the way in which the 'civil' nuclear power programme helps fuel the arms race and conversely the way that the military needs have underpinned nuclear electricity generation.

These points are powerfully presented in **"THE PLUTONIUM CONNECTION: Sizewell B and the Bomb"**, a pamphlet to be published mid-April by the CND Sizewell Working Group. CND's cross-examination of the Department of Energy witness at the Sizewell Inquiry in March exposed a series of deals with the U.S. where CEGB plutonium was bartered for nuclear weapons materials for Britain's so-called deterrent. The pamphlet explains these links and outlines CND's case against Sizewell.

Already 50 days old and going strong the Inquiry was enlivened mid-March by the first real cross-examination - of a senior civil servant from the Department of Energy. 'Till then the CEGB had been laboriously reading out their 40 plus books, or 'Proofs of Evidence', to an empty hall.

The more established objectors hammered away at the flimsy 'Energy Projections' presented by the Department. The Council for the Rural Protection of Rural England, (CPRE) pulled out a hefty 'Restricted' document which had been leaked to them. It was a suppressed, early draft of a study comparing costs of energy saving measures with new generating capacity. It contrasts strongly with the bland final version of the study, and in cross-examination the CPRE clearly demonstrated how an official view, which would have jeopardised the PWR programme, was rewritten to support the CEGB case.

This, and a host of other revelations are the main value of the Sizewell Inquiry. While there's little doubt the Government has already made it's decision, the spectacle of the Inquiry and its slide-shows uncovers much information which otherwise would never have been revealed.

The nuclear industries are on the defensive and we have to undermine them at every level. They may be big brutes, but they all have their Achilles Heel.

TORNESS TOGETHER WE WILL STOP IT
- SAFE ALTERNATIVES NOW!

Classified....

Select Bibliography on Nuclear Power.
Now available in exchange for a large SAE (marked "Bibliography" in the top left hand corner) from:
ANC Mail Order,
PO Box 216,
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ISSUES IN THE SIZEWELL 'B' INQUIRY

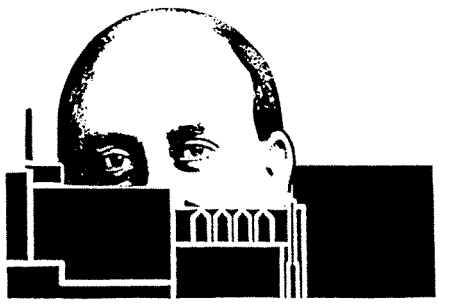
THE 1982 CONFERENCE PAPERS NOW AVAILABLE

Vol. 1. - **The Decision Making Process** - papers by Tam Dalyell MP, David Hall, Robin Grove-White, Michael Purdue and NALGO.
Vol. 2 - **The Choice of the PWR** - papers by Simon Rippon, Lord Bowden, Charles Komanoff and Dr. J. Schapira.
Vol. 3 - **Risks and Benefits - Economic** - papers by Gordon Mackerron, Professor J. Jeffery, Colin Sweet and Dr. Nigel Evans.
Vol. 4 - **Risks and Benefits - Safety** - papers by Bob Pollard, Dr. Fred Millar, Shoja Etemad and Trevor Brown.
Vol. 5 - **Nuclear Power and Weapons Proliferation** - papers by Professor J. Rotblat, Dr. Frank Barnaby, Dr. J. Simpson, Dr. J. Pharabod and Dr. R.V. Hesketh.
Vol. 6 - **Democratic Control?** - papers by Professor Roger Williams, Dr. Otto Keck, Joop van der Pligt, Gari Donn and Brian Wynne.

Available from the Centre for Energy Studies, Polytechnical of the South Bank, Borough Road, London SE1. (01-928-8989 ext. 2468).
PRICE: **£2.00 per volume OR £10.00 per set** of six volumes (inc. post & packing).

Dirty Deals.

While the Inquiry continues quietly in a nearly empty concert hall the nuclear industry is getting on with preparations for building the Sizewell reactor on the assumption that the Inquiry is already won. Several of the key orders for this first British Pressurised Water Reactor (PWR) have already been placed. Others will follow soon. This means that electricity consumers will have to pay 'severance' payments to several contractors if the station is **not** built. The British nuclear industry is only carrying on in this fashion because it is in a desperate condition and faced with commercial and technical collapse.



So far two significant contracts have been awarded. Even these seem minor. They will cost a few hundred thousand pounds each. The first is to a French company, Framatome, to design the pressure vessel which would, in principle, prevent the Sizewell reactor from spilling it's contents over East Anglia.

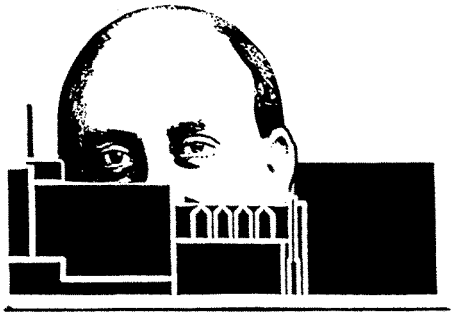
The second is to GEC Turbine Generators, the more successful of the UK's turbine manufacturers. Again the contract is for the design rather than the construction. But the Central Electricity Generating Board (CEGB) makes no secret of the fact that these contracts will lead to big manufacturing contracts were the station built. The total bill would be about £10 million for the pressure vessel and £80 million for the turbine generators.

Framatome is the obvious choice to build the pressure vessel for Sizewell. It has probably built more of the huge steel containers for Pressurised Water Reactors than any other manufacturer outside the Soviet Union. Although the CEGB promised that the design documents for the vessel would be ready early on in the Inquiry they have already been held up with translation delays. And with the recent history of cracks in the French PWR's, Framatome are bound to come under severe attack from several of the objecting groups.

RUMBLING DISPUTE

PWRs to date have used a single turbine set to generate electricity from the steam produced by each reactor. For the Sizewell PWR, which would have an output of 1,100 megawatts (MW) the CEGB has decided to stick with two 660 MW turbine generators. These are the type they have used in all their recent power stations, both coal and nuclear. They claim that using two turbine generators instead of one large one will make the station available one per cent more of the time - thus offsetting the extra cost. The objectors will say that there is no evidence that such a station can be run properly with two turbine generators, far less run better.

This abstract dispute hides a fundamental disagreement about where Britain's heavy electrical industry is headed. As long ago as 1976 the Government's Central Policy Review Staff recommended going for a larger demonstration turbine generator. But the Board is unwilling to budge from the machines it now feels it knows. They have a firm commitment to stick with 660 MW sets even if their wildest dreams - of a sequence of five or more PWRs - come true. This has infuriated GEC and their rival NEI Parsons, who want to compete in a world market for large turbine sets of up to 1,200 MW,



and will have to do so without domestic orders to build upon.

GEC won the Sizewell contract after vigorous lobbying. They have quoted a low price for a series of turbine sets for all five of the planned stations. But the CEGB maintain that they **might** go to NEI Parsons for future turbines because they are keen to avoid a GEC monopoly.

INEVITABLE REDUNDANCIES

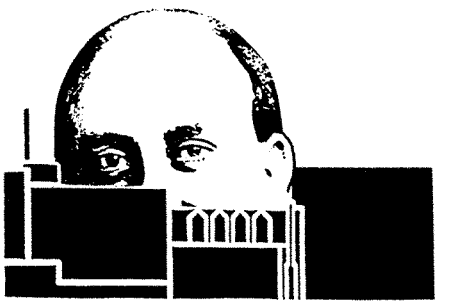
Next on the list of major Sizewell purchases is the nuclear system itself. That is the innards of the reactor and the steam generators which take the pressurised water from the reactor to raise steam to power the turbine generators. Here too there is gloom among British manufacturers. GEC, Fairley and other reactor builders are resigned to having the US Westinghouse Corporation, whose design it is, build most of the first reactor. Babcock and NEI fear that they will get less than one-third of the steam generator work. For Babcock this would mean redundancies for half of the 3,000 workforce at their Renfrew factory.

Babcock, in particular, would rather see investment in fluidised-bed combustion systems for coal-fired power stations. This would enable UK firms to develop a genuine new technology, instead of becoming yet another supplier of PWRs, for which cancellations have outrun orders for several years. So it is by no means settled that the nuclear enthusiasts will get their way.

BAD OMENS

The medium-term future for the nuclear industry looks even more confused. If the Tories win the next General Election, they will probably move to chop up the CEGB and replace it with regional power boards, allowing private capital into electricity generation. CEGB boss, Sir Walter Marshall will then be put in charge of the whole British nuclear industry, including the National Nuclear Corporation, the UKAEA and other bodies. But the power boards would then be too small to buy nuclear power stations.

This would leave British Nuclear Fuels Limited as the only remaining commercially-viable operation. That would mean that the UK nuclear suppliers would be driven to rely more than ever on the illusion of export orders. These could be to countries which can not buy PWRs direct from the USA because they have not signed the Nuclear Non-Proliferation Treaty (NPT). Such countries could possibly buy Westinghouse technology from



the National Nuclear Corporation as a licencee. But even this supposed advantage will disappear if the US corporations get the NPT restriction removed, as they are lobbying hard to do.

The British nuclear industry is on it's knees, and the Sizewell project is it's last gasp. So it is vital that opposition to the PWR is exerted at every level and in every possible way. Safer and more appropriate energy systems exist. Now is the time to push for them.

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NUCLEAR POWER = NUCLEAR WEAPONS NUCLEAR POWER = NUCLEAR WEAPONS

Hawke a dove?

Australia's new Labour Prime Minister, **Bob Hawke**, seems to be putting policies into practice on entering office.

WARSHIPS SHELVED

First, his Labour Government cancelled the order for the British 'Invincible' aircraft carrier. This was part of a £1000 m. exchange deal in which Australia was to build a replacement for the 'Sir Galahad sunk in the Falklands.

TASMANIAN DAM

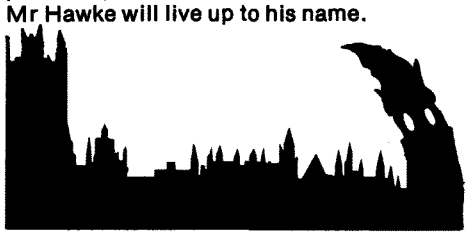
Next, Hawke suspended all work on the controversial Tasmanian Hydro-Electric dam, and ordered a review of Energy Policy.

Also under review is Australia's mining policy. The Labour Party are considering stopping the Ashton Joint Venture diamond project, which is jointly run by an RTZ subsidiary. More significantly, it is Labour Party policy to demand an undertaking from buyers of Australian uranium that it will not be used for military purposes. If Hawke decided to ban uranium mining, then nuclear nations might begin to feel the squeeze after the present world glut in uranium supplies.

NAMIBIAN CONTRACT WITH RTZ

Britain has a massive uranium stockpile (enough to last the CEGB 10 years) and this was a strong reason for the Government's recent announcement that the Namibian uranium contract with RTZ will not be renewed when it expires in 1984. Ironically, an Australian ban might result in more contracts for uranium from RTZ's infamous Rossing mine.

Remembering Mitterand's election promises, the world awaits to see whether Mr Hawke will live up to his name.



Lords Report

A senior House of Lords Committee is proposing that responsibility for promoting energy conservation in Britain be taken away from the Department of Energy, and given to a new independent agency.

The Committee describes the Government's conservation programme as "half-hearted" and lacking in political will. The report* also says that the Government should provide "pump-priming financial aid to stimulate cost-effective investment" and suggest that were the government to provide more capital, or reduce the investment risk by some form of insurance scheme, industry might respond better by investing more.

*"The Rational Use of Energy in Industry" from the EEC Committee of the House of Lords. HMSO.

Wastelines.

A sharp eye, and patience, are needed for those watching the twisting and turning of policy changes in the nuclear industry. Here our friendly 'old scientist' explains the latest turnabout on methods for dealing with the industry's deadly outpourings:-

NEW PROPOSAL FOR DISPOSAL

The nuclear industry is busy developing new ways to dispose of their radioactive wastes. One of the plans - drilling down into the sandstone rock beneath Windscale on the Cumbrian coast, was first revealed by Little Black Rabbit last June (SCRAM 30). The proposal has now been confirmed by the New Scientist, (24 Feb.). They detail a whole range of ideas being considered by NIREX, Britain's new nuclear waste authority. It is thought that planning permission for new disposal sites will be sought shortly.

NIREX has abandoned 'test drilling' for their new programme, after the successful public opposition to the earlier attempts at test drilling for high level waste disposal sites. The new sites will be for 'medium' level waste and will be chosen **where they are least likely to meet opposition. This is the main advantage of disposal under Windscale.**

Greenpeace

UNDER WINDSCALE, OR....

New radioactive waste dumps are needed because of the vast accumulation of medium level waste from the Windscale reprocessing factory. There have already been several leaks from the holding tanks at Windscale. And more 'medium' level waste will be created when the old nuclear reactors are dismantled.

The rocks under Windscale are not the only ones under consideration. Other suitable areas are either side of the Severn estuary; in Lyme Bay, Dorset; in north-east Scotland and the Orkneys; in Devon; parts of north-east England and south Wales; and in the southern uplands of Scotland.

BY RAIL TO CLAY TRENCH

The 100,000 plus drums of radioactive wastes for disposal would travel by public railway starting in 1988. The first dump planned is a 30m deep trench dug into clays. The deeper disposal site (300m down) could not be ready until 1997. This site would be designed to take the wastes with the largest amounts of long-lived plutonium wastes. The plans also include a large new low level waste disposal site, because the tip at Drigg, just south of Windscale, is filling up.

All this will not affect Britain's intention to defy the recent 2-year moratorium on ocean waste dumping imposed by the London Dumping Convention. Indeed, the nuclear industry expects an increase in the amount of sea dumping this year.

ABANDON REPROCESSING!

Most of the low and medium level waste for dumping comes from reprocessing the spent nuclear fuel rods. But the future of reprocessing is now suddenly in doubt. Plans are being developed to just store the spent fuel in air-conditioned "warehouses" before disposing of it whole. NIREX believe this option would prove cheaper than reprocessing. It would also not create the large volumes of low and medium level waste and would keep the deadly plutonium locked up.

This argument to do away with reprocessing sounds remarkably like that being advanced by Friends of the Earth at the Windscale Inquiry in 1977. So once again it looks as if the anti-nuclear case is being proved right... just as it has been on the lack of need for nuclear power, it's poor economics, the folly of the fast breeder reactor, the problems of waste disposal.....

Acts of Nature?

On January 25 the atoll of **Mururoa**, the site of French nuclear warhead testing in French Polynesia, was directly hit by a terrific cyclone. Mysteriously no news bulletins on the effects of the storm were issued by the French authorities. This is probably because on March 22, 1981, a similar tropical storm ripped off the asphalt covering to several pounds of deadly plutonium on Mururoa. A 30,000 sq. metre storage area was flooded, washing much of the accumulated radioactive wastes into the ocean.

The French deny that they are planning a deliberate dumping of nuclear wastes in the ocean. However no clear plans have been made. Campaigners Marie-Therese and Bengt Danielsson, from nearby Tahiti, suspect that the French will leave tidal waves and cyclones to do their disposal work for them. These 'acts of nature' would minimise any moral qualms, political dangers and future costs.

They believe this is exactly what happened on January 25.

Each year up to ten nuclear warheads are tested on Mururoa. By the end of 1983 they will have experienced 100 nuclear explosions. It will be an appalling and sad event to 'celebrate'.

WISE Communiqué. 24.2.83.

news...

NATO on the Warpath

The Pentagon is possibly planning to deploy Ground Launched Cruise Missiles on Lewis in the Outer Hebrides. They say this is to 'close' the Greenland - Iceland - U.K. (GIUK) Gap to the Soviet Northern Fleet.

This was revealed in a recent issue of the U.S. magazine **Aviation Week and Space Technology.** The MoD have since denied that any "nuclear cruise missiles" are destined for Lewis. However, the missile most favoured to fill the GIUK gap is a special version of the Tomahawk Cruise, adapted for an anti-shipping role, and fitted with a conventional warhead.

A feasibility study into the deployment of GLCM on Lewis will take place in June. It will be conducted by the US Defence Nuclear Agency.

Meanwhile up on Stornoway (Lewis) Keep Nato Out (KNO) have just published a report entitled **"Stornoway Airfield - Background to NATO Development Proposals"**. This includes a comprehensive diary of events leading up to the present planned nuclear base. This is available from **KNO c/o 24 North St., Sandwich, Isle of Lewis.** (50p).

Low Returns

According to a report by the US **General Accounting Office** (GAO) all countries receiving highly enriched uranium from America for 'peaceful purposes' have gone for more than a year without inspection by the IAEA. All waste material was to be returned to the US. However only 7% of the enriched uranium has been returned. The IAEA have stated that it takes only 7 - 10 days to convert unirradiated highly enriched uranium into bomb components.

'It's About Times', Feb. '83.

L.D.C.

On February 14th, Londoners witnessed three inflatable boats speeding down the Thames with a police escort, on their way to the London Dumping Convention (LDC). Sea Shepherd and the Campaign Against Sea Dumping were returning 'Radioactive waste' drums to the Convention to bring to the attention of the delegates the growing international opposition to the sea dumping of nuclear waste.

About 150 people were picketing the International Maritime Organisation building, where the LDC was meeting, as we landed and hauled the drums up to the road. Security guards however, prevented us taking them into the building, so we placed the three drums, with the slogan "Dump the A.E.A." written on them, prominently by the main entrance.

Pete Wilkinson from Greenpeace asked if a member of the British delegation would come out and speak to us, but they declined.

Three days later, after referring the Kiribati/Nauru and the Nordic countries resolutions to their Scientific Committee, the LDC voted for a Spanish motion which effectively bans radioactive waste dumping for 2 years, until the Scientific Committee reports back. They have to prove that dumping radioactive waste at sea is safe. An incredible victory!

Britain however, still intends to dump this year, in defiance of the LDC ban and despite a call from the European Parliament last September to the U.K., Belgium and Switzerland and the Netherlands to "stop dumping immediately".

A provisional date for loading the drums of radioactive waste this year is July 18th-22nd at Sharpness Docks in Gloucestershire. With these two resolutions behind us, we must take whatever non-violent actions are necessary to stop the dump ship leaving port this summer.

In the meantime please write to **Peter Walker, M.P.** at the **Ministry of Agriculture, Fisheries and Food, Whitehall Place, London SW1**, asking him to refuse the Atomic Energy Authority a licence to dump this year. Please write to your M.P. **as well**. Ask if they feel that there really is enough scientific evidence to be certain that British nuclear wastes dumped in the sea (in defiance of the 1983 decision at the LDC) would not get into the food chain at some future date. Urge them to sign the Early Day Motion on Sea Dumping tabled by Donald Stewart MP, and Gordon Wilson MP.

Paul Glendell, Campaign Against Sea Dumping

The Campaign Against Sea Dumping has updated and republished its booklet **"Dumping At Sea"**, available from C.A.S.D., The Surgery, Weston Road, Congresbury, AVON. 50 pence inc. postage.

NUCLEAR POWER = NUCLEAR WEAPONS NUCLEAR POWER = NUCLEAR WEAPONS

Roman's in Britain.

In mid February, the most important meeting of the London Dumping Convention held to date took place in London. There were three proposals concerning the activity of sea disposal of radioactive nuclear wastes. One of these, from the Pacific Islands of Kiribati and Nauru, called for a complete ban on such activity.

Roman Bedor, representing the Peoples of the Pacific undertook a Speaking Tour of Europe in February to obtain public support for a Nuclear-Free and Independent Pacific. His first British date was in Edinburgh on February 9th. He outlined American plans to base their Trident Pacific fleet in his home country, Belau, the Japanese plans to dump radioactive wastes in the Pacific Ocean, and the continued French nuclear testing on Muroroa Atoll.

Next day, Roman called on the French Consul in Edinburgh, to hand in a letter of protest from SCRAM and the Edinburgh Branch of the Medical Campaign Against Nuclear Weapons calling for a halt to French nuclear warhead testing in the Pacific. The Consul claimed that such testing was safe, to which Roman asked that if this was so, why is the testing not carried out in France?!

Roman then spent a week lobbying the London Dumping Convention, where on February 17th, the tremendous victory was won.

Chris Hill

The Dangers of Dounreay.

When the Government last November announced the results of its recent review of the future of the Nuclear Fast Reactor - the type being developed at Dounreay in Caithness - it was full of praise for the nuclear industry. The UK, said Energy Secretary Nigel Lawson, was among the world's leaders in the technology, and the success of the research and development programme meant that Britain was in an "excellent position" to prepare for the introduction of fast reactors on a commercial basis.

Such extravagant acclaim, however, sits uncomfortably with the uncertain reality in the industry revealed by recent leaks of internal information. The buoyant tone of Mr. Lawson's remarks was partly aimed at lifting the poor spirits of many of those in the UK Atomic Energy Authority (UKAEA), caused by lingering uncertainty over the future of the fast reactor, in particular the future of the Dounreay establishment. When read more closely, Mr. Lawson's comments in fact offer little hope other than the notion that the government now believe that the ordering of commercial fast reactors will begin "in the earlier part of the next century, and thus on a longer timescale than we have previously envisaged."

Ever since the early beginnings of nuclear power in the late 1940s, the fast reactor has been seen by the industry as the reactor of tomorrow because of its theoretical ability to breed substantial amounts of its own fuel, plutonium. Yet the promise has never quite materialised, and some are beginning to wonder if it ever will.

Symptomatic of the malaise is the fact that the average load factor for the Dounreay prototype fast reactor (PFR) since it started up in 1975 is around a meagre 8 per cent, due mainly, say the UKAEA, to problems with the steam generating plant. Even allowing for the experimental nature of the PFR, this is an extremely disappointing figure.

One of the major concerns in relation to the fast reactor is safety, as it is by nature more difficult to control and contain than ordinary nuclear reactors. A confidential report from the industry-wide Safety Policy Committee on Fast Reactors concluded in 1975 that the explosion that could conceivably result from an accident involving the vapourisation of the reactor coolant (sodium) "may not be contained". In such circumstances, which the UKAEA now say are extremely unlikely, large quantities of dangerous radioactivity could be released into the environment.

In a paper to a nuclear conference at Chicago in America in 1976, Britain's Nuclear Installations Inspectorate (NII) stressed the potential seriousness of such 'whole-core' accidents. They pointed out that "there are doubts about the adequacy of fault lists, about some of the physical phenomena which might play a part in an accident sequence, about structural materials behaviour and the performance of protective systems". They added that "there are potentially serious conventional hazards associated with the reactor system which could also jeopardise the safety of the reactor".

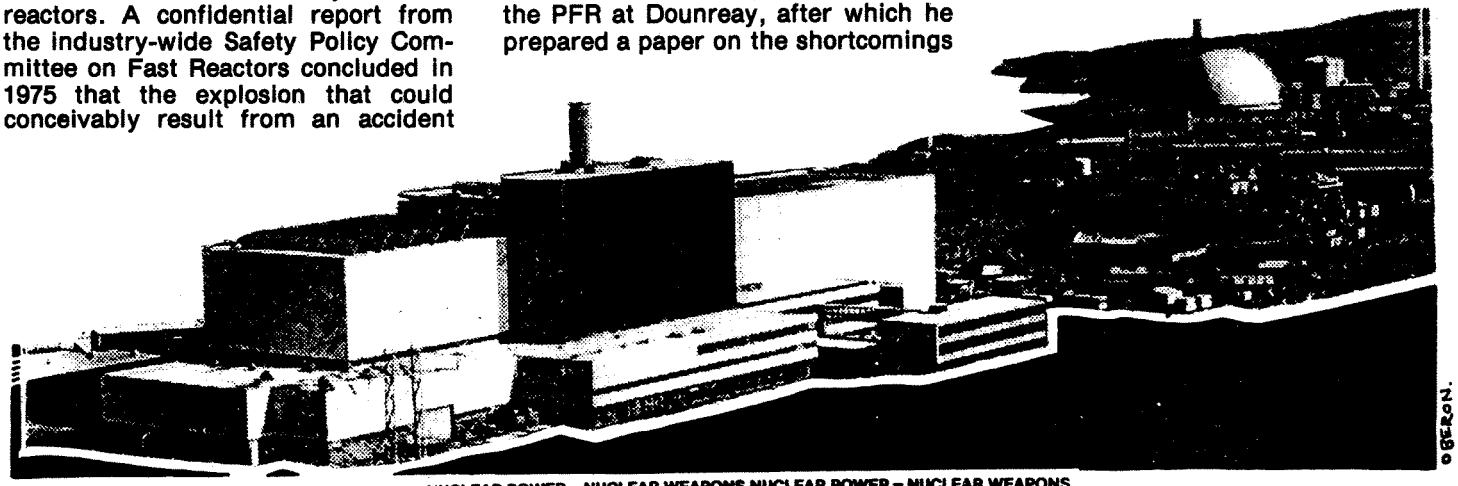
The kind of concerns highlighted by the NII were echoed in a series of memorandums sent over a couple of years by a principal engineer responsible for reactor safety at the UKAEA's Safety and Reliability Directorate, Rodney Fordham. In 1976 he warned his boss, George Kinchin, that the problem of sodium vapourisation could lead to the destruction of the reactor and its environs. He argued for a fundamental rethink on fast reactors and concluded that if the necessary changes made it uneconomic, the only really safe place to put fast reactors was as far below ground as nuclear weapons are tested.

In June the following year Mr. Fordham along with some colleagues carried out a two day safety audit of the PFR at Dounreay, after which he prepared a paper on the shortcomings he claimed to have uncovered. He said, amongst other things, that the flask arrestor gear was inoperative, the burst pin detection equipment was out of service, certain important measurements were not made, some calculations were in error and the above core structural reliability was in doubt. On their own these deficiencies may not have been critical, but, according to Mr. Fordham, taken together they created a very serious situation.

At the time Mr. Fordham was unhappy with the response he got to these and other points he raised. In many instances he pursued them further until in 1978 he was transferred at his request to non-nuclear safety work. In September last year, after 27 years in the industry, he was given little choice other than to take early retirement from the UKAEA. He also has serious doubts about the safety of the pressurised water reactor planned for Sizewell in Suffolk, and may appear as a witness for one of the anti-nuclear groups at the Inquiry, which is currently in session.

A spokesman for Dounreay carefully rebutted each of the points raised by Mr. Fordham, in some cases admitting to flaws in the past and in all instances stressing the satisfactory nature of the present position. Improvements and checks were carried out regularly to ensure that all is well. He said that the staff at Dounreay normally dealt with the staff at the Safety and Reliability Directorate as a whole through the director, rather than through particular individuals. "We constantly review the safety of the PFR" he said, "and in the light of these reviews, we are confident that the reactor is safe."

by **Rob Edwards,** author of the new CND pamphlet **"THE PLUTONIUM CONNECTION: Sizewell B and the Bomb".**



Faslane demo..

On Monday 21st March two direct action affinity groups, one from Edinburgh and the other from Faslane Peace Camp, Blockading started at 7 a.m. at the South Gate in order to stop workers coming into the base for the main shift at 7.30 a.m. When workers' vehicles were diverted to the North Gate the Edinburgh group which included members of SANE, SCRAM, CND and independent members rushed in a minibus to the North gate and so managed to stop all the traffic entering the base. The police arrested this group after about 20 minutes, taking 12 people into custody at Helensburgh police station. Members of the Faslane group took over from those people arrested and were themselves quickly arrested, but not before causing a 2 mile tail-back of traffic.

Altogether, 20 people were arrested and charged with 'breach of the peace'. The accused were imprisoned overnight and the next day they appeared at Dumbarton Sheriff Court. All but one pleaded not guilty to the charges. Two members of the Peace Camp, who had broken bail for a similar charge, were fined £15. One refused to pay and was sentenced to 7 days imprisonment in Barlinnie Prison. All of the others were released on bail and will appear at Dumbarton again on the 11th and 12th of April.

The tactic of roughly handling and then holding demonstrations in custody for over 24 hours suggests a new phase in the authorities attempts to stifle protest against nuclear weapons. Just 50 people in all were involved in the blockade which followed a Festival for Change held on Sunday. With more, with hundreds or thousands, we shall be able to close the base permanently. Every action contributes to public knowledge of these death establishments.

Torness Festival..

With the action at the gates of Torness on January 11 and the publication of SCRAM's new pamphlet 'Torness: from Folly to Fiasco', the campaign against our local nuke is picking up again. On Bank Holiday Monday, May 30th, there will be the **Torness Festival of Recreation** at Barns Ness/ Whitesands (1 mile from Torness).

The Festival is part of the Faslane to Greenham Walk for Life (see opposite). The Walk will arrive in Edinburgh on May 26th and there will be a day of action in and around Edinburgh on Friday 27th (Contact: Peace & Justice Centre, 229-0993). The walkers will leave Edinburgh on the Saturday, weaving their way through East Lothian along the proposed rail route for radioactive waste, from Torness arriving at Barns Ness on Monday lunchtime for the start of the Festival. There will be bands, folk music, dancing, singing, theatre, exhibitions, stalls, food, creche... and whatever people bring along! We have the campsite at Barns Ness from Saturday till Wednesday (with a small charge of 60p. per head), so bring your tent.

Any help at all in organising, publicising, funding this Festival would be really appreciated - the next planning meeting is on **Tuesday 19th April** at 7.30 p.m. in 11 Forth Street, and fortnightly after that. Get involved! Posters and leaflets are available from The Smiling Sun Shop... we **can STOP TORNESS!** Details from SCRAM.

SCRAM NVDA group meets every Thursday, 7.30 p.m. at 11 Forth St. All welcome.

A Walk for Life..

This year when Cruise Missiles are due to arrive at Greenham Common, the whole nuclear chain is setting us up for ultimate destruction.

It seems that the world is as far as it ever has been from achieving a state of peace. We need to reach out to people's hearts with hope rather than drown their minds with horrifying statistics.

Seven of us from different peace camps are planning a Walk this summer from Faslane to Greenham Common to enable individuals to express their hopes and fears, their despair and their love, in a positive non-aggressive way.

The Walk will begin at Faslane on the 19th May and arrive at Greenham in time for Hiroshima Day - 6th August. Accommodation will be mainly in marquees and cooking on camp fires. We will be sharing our lives during this time, joining together to walk, cook, discuss, sing, plan, vigil, to learn and to teach. We are just now setting up a framework for all this.

What actually happens is up to the walkers. There will be lots of space for spontaneity.

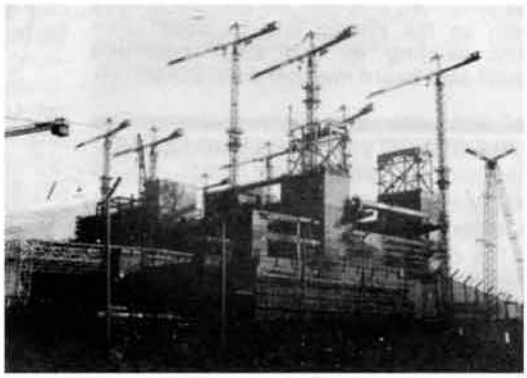
By joining us and walking all or part of the route, by helping with physical or financial support or by joining us in spirit from your own home you can share your commitment to peace. For further information please contact: **A Walk For Life, 31 Ickburgh Road, Clapton, London E5. Tel: 01-806-4615.**

NEW PAMPHLET

TORNESS
FROM FOLLY TO FIASCO

Controversial from the outset, the construction of Torness Nuclear Power Station goes on blindly. This pamphlet outlines the arguments and offers some common-sense alternatives.

At every stage independent voices have condemned the reactor on the grounds of cost, surplus capacity, loss of jobs in the mining industry, and the unsolved problem of nuclear waste. More and more of the arguments have been proved right - yet they are still building it.

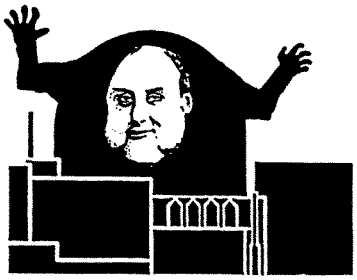


Torness construction site March 1983.

Get your copies NOW. 95p - 20p p&p.
Bulk orders special rate.

Orders to Smiling Sun Shop, 11 Forth Street. Edinburgh 1. (031-557-4283/4).

Sizewell



Pressurised Walter Reactor

CEGB's 'best bet' a dead loss

The **CEGB** have finally published a new 'Analysis of Generation Costs'. Back in July 1982 the Board's Annual Report noted that they were "currently preparing a memorandum dealing with... comparative generation costs for power stations... it will be published when complete". In August an article in The Daily Telegraph revealed that the Board was about to give new estimates for the costs of nuclear power. "The estimates are expected to say that the annual cost of nuclear electricity is much higher than many scientists believe", it said.

With Sizewell looming, and 'cheapness' being a mainstay of the argument for nuclear power, an even heavier responsibility than usual lies in the hands of the CEGB's skillful accountants. Taking a year or more to complete this latest cost analysis, they have obviously been working very hard to produce the acceptable figures.

The analysis shows that, if each station is assumed a 25-year life, nuclear power, and in particular the PWR, is the "consumer's best bet for the future". "All the AGRs under construction are expected to have cheaper generation costs than Drax B, and despite all the extra costs of delay and redesign, it is still worthwhile to have them on the system and to close down some existing oil and small coal-fired plant" said Board member John Baker.

ELECTRICITY GENERATING COSTS
(pence per kilowatt/hour)

Magnox nuclear	Coal	Oil	Hinckley Pt. B AGR nuclear	Drax new coal
2.63	2.46	3.07	2.39	2.67

F.T. 1.3.83.

Arguing against nuclear power purely on **economics** quickly turns into a numbers game - perhaps the Inquiry is the best place for that. At least the CEGB have finally admitted that Magnox nuclear electricity is more expensive than coal, but even a brief look at their cost analysis reveals some obvious half-truths.

Walterfall?

A Petition has been produced calling for the removal of Walter Marshall as Chairperson of the Central Electricity Generating Board (CEGB).

Walter Marshall, called 'Mr PWR' within the industry, has a long personal commitment to nuclear power. He is ex chair of the United Kingdom Atomic Energy Authority and headed the 'Task Force' set up last year to design a cheaper PWR. He has also been involved in several suspect financial deals with other countries and companies eg. the attempt to sell reactors to China.

The petition should be useful for local groups and individuals to try and show some of the aspects of the nuclear power "Debate" that are not usually highlighted.

A Briefing sheet has been prepared on Walter Marshall. Petitions and briefing sheets are available from:

East Anglia ANC, 322 Mill Road, Cambridge.

Donations towards costs welcome.

DON'T LET

THE TRUTH

GO DOWN

THE DRAIN!!

THIS IS A PLUG FOR A NEW OUTLOOK

ON THE SIZEWELL B PUBLIC INQUIRY

£5 Sub, £10 Supporting sub to:-
EAAANP, 2 St Helen's St Ipswich

SIZEWELL REACTIONS

News of opposition to the PWR in Britain

Write something about the mood and the colour of the local campaign, said SCRAM. Well the colour is easy - grey. **Suffolk** people are not reknowned for their radical tradition and we often feel that trying to generate any opposition to the PWR in the area is like going into Boot's and asking for a blank stare.

On top of that the existence of the Sizewell 'A' Magnox station ensures that local people are softened to the prospect of having a nuclear power station as a neighbour. The only consolation is that the CEGB, despite opening three special information centres (at a cost of £30,000 each) in the area, are having just as hard a job whipping up enthusiasm.

The mood is a bit more difficult. At times we feel that the whole project will go ahead despite all our efforts. At other times the CEGB seem to be making such a disaster of their whole presentation, at least as far as it is seen in the press, that no-one in their right mind would let them build the thing.

However, the reality is that we are not necessarily dealing with people in their right minds. So the campaign is watched over with a healthy amount of cynicism.

Perhaps the one area which we didn't anticipate is the sheer grind and hard work which is involved in running a campaign on this scale. With a bare minimum of volunteers and John Valentine and myself somehow we are managing to monitor the inquiry, handle the increasing number of written and 'phone enquiries requests for speakers etc. and still produce **Sizewell Reactions** once a fortnight. Inevitably it means long hours, commitment and a great deal of sacrifice. But we believe that the case for Sizewell 'B' is far from decided. We must, otherwise there would be no point in carrying on. Certainly a close reading of the Dept. of Energy's evidence leads us to believe that they are far from convinced of the need for development of nuclear power in this country. It is probably significant that up till now most groups have avoided close questioning of the CEGB - for the Dept. of Energy's man they are queueing up.

So all is not black - keep sending us those messages of support and most of all subscribe to 'Reactions' - first with the real news from Snape.

Roy Thompson.

10 Years Defiance at Wyhl

WEST GERMANY's moratorium on the licensing of nuclear power stations came to an end last July since when three construction permits were issued. A permit is expected to be awarded for a 1300 MW heavy-water reactor at WYHL in the Rhine Valley. Nuclear projects in the region have, ever since the early 1970's, been strongly opposed by local people in France, Germany and Switzerland.

Wyhl is a village of nearly 3000 inhabitants about 30 miles north-west of Freiburg. It lies in a rural area where maize, tobacco and other crops are grown. Just southwards between Wyhl and Breisach is the volcanic massif of the Kaiserstuhl, an important wine growing district. The wine-growers and farmers feared the loss of their livelihood. The fog created by the large cooling towers over long periods of the year would be very injurious, particularly to the grape harvest. The rise in temperature of the Rhine and the lowering of the water level would also have a detrimental effect on the environment.

As opposition to the project developed the Kaiserstuhlers heard of another potential source of pollution:- a lead stearate factory was to be built at Marckolsheim in Alsace, only three kilometres in direct line from Wyhl. The toxic waste from the factory would be injurious not only to the vineyards but to all living beings. The local population reacted strongly against the project and they were joined by many people from Baden in various protest actions. After a long campaign including a five month occupation of the factory site the French authorities finally refused permission for the project to go ahead. Marckolsheim was a total victory and proved to be useful training for the coming Wyhl battle.

NUCLEAR POWER?

The opposition to the Wyhl plan was strengthened as local people became more aware of the dangers peculiar to nuclear energy:- radiation, transport of radioactive waste and accidents. At the official inquiry protesters were not allowed to speak and walked out en masse. The regional government had promised amenities for the village and had indicated that land would be compulsorily purchased if necessary.

Protests were lodged with the Courts by 30 citizen action groups (Bürgerinitiativen) and 17 local councils, but on 2nd February 1975 the land was sold to Baden-Werk. On 17 February work began on felling trees in the forest site. The action groups held a press conference nearby at which attention was drawn to the 100,000 signatures collected against the project (60,000 from the Kaiserstuhl alone). Led by some Alsatians those present started **occupying** the site. The police were outnumbered but three days later 700 riot police were sent in. With the help of water canon they evicted the squatters and arrested 54 demonstrators.

NO THANKS!

The next day thousands of people demonstrated angrily outside the site which was now fenced in and well guarded. On Sunday 23 February 28,000 people from all over Germany and from other countries answered the call for a nonviolent demonstration. The 1000 police facing them could not prevent the reoccupation of the site which was carried out efficiently under the direction of 200 marshalls.

The government decided that work would not be resumed until objections by the councils and action groups had been considered. In October 1975 after legal arguments it was agreed by the courts that work could be resumed but the site was still occupied and the government was unwilling for another confrontation. After negotiations between the groups and the government it was agreed that experts should be consulted about the dangers of radioactivity and the effects on the climate. Finally in November the occupation was suspended.

The occupation lasted eight months. The squatters lived in tents and a large log-built round-house was constructed on the site similar to the one at Marckolsheim. Here squatters and local people met to discuss and organise the campaign.

On Easter Monday 31 March 1975 an international demonstration brought 16,000 people together from 50 towns and villages in France and Germany.

Wyhl was the subject of a new inquiry in early 1977. In a very unequal contest 38 experts spoke for the Project but only five against. To everyone's surprise the judges ruled against the construction of the plant. They gave as their reasons:- the risk of a failure of the reactor casing and the lack of safety precautions to protect the population. This decision was **reversed** in March 1982 by the Mannheim Federal Court. Local people reacted quickly. 400 farmers toured the Kaiserstuhl on their tractors. 70,000 copies of a free paper explaining the new situation were distributed by the action groups. The court did not immediately publish the reasons for their decision. When they did, this autumn, opposition groups were faced with a document of 548 pages, the longest ever known for such a purpose.

Minister-President Späth of Baden-Wurttenberg has declared that the government are determined to build the station. He has also offered to meet all relevant groups in the region:- Mayors, farmers' associations, wine-growers, the church... and also the Bürgerinitiativen. The venue would be at Offenberg 60 kilometres from Wyhl. By demonstrating to the media that he is willing to consult everyone he no doubt hopes to isolate the action groups. Establishment organisations are unlikely to give him a rough passage. Only the action groups will oppose him clearly and vigorously.

The Baden-Werk company have indicated that they have modernised the original design of the plant now ten years old. The new "Bauline 80" includes plans for a thicker protective shell around the reactor - more concrete, more steel. Provision is also to be made for an intermediate depot for the radioactive waste (which of course makes the whole project even more dangerous).

The citizens action groups have had a bad time with fear and despondency. They realise they could be isolated. The police are better prepared for crowd control and this includes chemical weapons. However this is all in the past now. According to first hand information from Wyhl, after a meeting of the Bürgerinitiativen at Christmas-time they came to a new awareness of their power. The reaction of the local population is said to be unanimous:- they will not accept the Court's decision. In the words of Peter, an activist who works at Wyhl:- **"Hope begins to spread. I think it will be very hard but we can win".**

Roger Rawlinson.

AntiNuclear CAMPAIGN

A number of readers have asked for news of the ANC. So we asked their Sheffield office for a report. Here Ralph Pryke starts with a 'Partial Report'.

It may not seem like it but the **Anti Nuclear Campaign** (ANC) has only been around since Novembr 1979. Perhaps history will see ANC as an aberration: originally intended to gain the advantages of single issue pressure groups, and located in a crowded and competitive 'market', it was formed at a low point in public interest in nukes, mid-way between two epic public inquiries at Windscale and Sizewell. Because of the sheer size of its concerns, nuclear power **and** nuclear weapons, it rapidly outpaced most other pressure groups and made all the running in the hitherto almost untouched labour movement. Its work in spreading the consumer campaign of withholding the nuclear portion of electricity bills was also important new ground.

ANC Objectives:

1. Stop nuclear power
2. No nuclear weapons
3. Reduce waste of energy and develop an alternative energy programme.
4. Guarantee employment during changeover.

As with all other anti nuclear and environmental groups in the UK, ANC's history to date will probably be seen in terms of the personalities involved, specifically in ANC's case, that of its founder, Tony Webb.

Tony came to be ANC's originator via FOE and SERA from a start in community activism in the West Midlands. It was while working as a field officer of sorts for SERA that he met a large number of labour movement activists who shared his and most environmentalists' concern with nukes. A series of discussion articles followed about the state of play in British anti-nuke campaigning and a proposed "British Anti Nuclear Campaign" (BANC), those in Peace News being especially influential.

BANC identified four principal objects, gained a logo owing much to the more famous CND one, and became ANC, which has since led to some confusion with the other ANC, the African National Congress. When the other ANC claimed responsibility for the explosions at the South African Koeberg nuke in December 1982, several European activists wondered just how far the UK ANC's international department reaches!

November 24th, 1979 saw a controversial founding conference of ANC at the Central London Polytechnic. Controversial because it was in London, and ANC looked like being London-oriented, and also because other groups, notably FOE and Greenpeace, made a big issue of boycotting ANC.

Most observers saw FOE's attitude to ANC as that of a competing rival. Personality clashes from Tony's days with FOE certainly played a part as did FOE's frustration at getting nowhere after the Labour-dominated House of Commons accepted the Windscale Inquiry report of Mr Justice Parker (as he then was). The report was notable for ignoring FOE's detailed, well-presented and expensive evidence to the Inquiry, a point not lost on Sizewell's opponents. More recently, Tony moved on to greater things: organising the Reagan-blighted Midwest of the USA.

The original hope by some that ANC would be an anti-nuclear coordination group was never realistic and the intended function of liaison was stifled by many groups' absolute independence. Instead, ANC's activists got on with the organisation necessary to fill the gaps left by other groups.

What has marked out ANC from the crowd from the earliest days has been its **democratic** credentials. The Steering Committee, responsible to the Annual Campaign Conference, has representatives of national organisations elected at the Conference (currently ranging from the Liberals to the SWP) together with regional representatives. Some critics have seen this as over-reliance on labour movement tradition, but other organisations, such as FOE itself, are belatedly following ANC's lead to democratic accountability.

Funding from the Rowntree Social Service Trust and the donated royalties from a hit record enabled ANC to appoint a full-time Secretary and open an office in downtown Battersea (Gateway to district heating if not CHP!).

As the Campaign had never set out to be a pressure group in the traditional mould (no relation to would-be mould-breakers) with the attendant servicing of groups and supporters, ANC has always been a campaigning organisation with affiliated groups and supporters throughout the country. As such, it both initiates and reacts to activity in the nuclear scene.

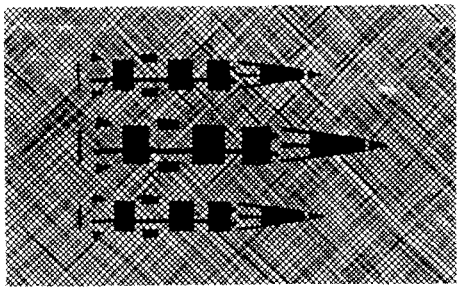
The first, and biggest publicity break came with the arrival of a copy of the Minutes of the Cabinet's Economic Strategy Committee held on 25th October 1979 which was chaired by the Prime Minister and attended by the now Secretary of State for Defence, amongst others.

Discussing the proposed multi-megawatt nuclear expansion, it was suggested that a crash nuclear programme could best succeed if the public were told as little as possible. The Minutes went on to note "But a nuclear programme would have the advantage of removing a substantial portion of electricity production from the danger of disruption by industrial action by coal miners or transport workers... Opposition to nuclear power might well provide a focus for pressure groups over the next decade and the Government might make more rapid progress towards its objectives by a low profile..."

So, here we are, three years into that decade; ANC's still with us, and it's election year.

Next: Relocation to the People's Republic of South Yorkshire, Sir Walter pops out for a short walk, and the CEGB declare Open Season.

Atlantic N-Links



From the 7th - 10th April Glasgow END and Scottish CND are hosting an **International Conference for a Nuclear Free North Atlantic.** Participants will be coming from over a dozen countries now affected by the nuclear developments in the North Atlantic. SCRAM members will be leading one of the issue workshops at the Conference on 'Links in the Nuclear Chain'. Here James Kinnaird gives some of the background:-

The earlier peace movement concentrated its attack on nuclear weapons and largely accepted the idea of the peaceful civilian use of nuclear energy, which was put forward in the USA's 'Atoms for Peace' programme in 1953. But this ignored the fact that all the plutonium used in weapons must come from reactors, and that the fuel chain for nuclear weapons and for nuclear power is identical. In this outline, we focus on the nuclear fuel chain in the North Atlantic countries (including where possible the Soviet Union), and hence the potential for weapons production and proliferation.

URANIUM MINING

Uranium reserves occur in the USA, Canada, Greenland, Sweden, Finland, the USSR, Germany, France, Portugal, Spain, Ireland and Britain (Orkneys). Canada, the USA, France and Sweden are the main North Atlantic producers, with the USA producing about half of the 40,000 tons p.a. produced in the West (1979/1980 figures). France is the major uranium producing country in W. Europe, with reserves estimated at 164,000 tons. Sweden's estimated reserves are even larger at 304,000 tons i.e. over 7 times the present total Western production.

The desire of the EEC to become self-sufficient in uranium production (⅔ of its annual requirement of 6,600 tons is imported) has led to some political arm-twisting in Greenland, which has a sixth of the EEC's potential supply. Denmark has agreed to its colony's independence only if Euratom is guaranteed access to the uranium, in spite of strong local opposition to mining.

It must be borne in mind that much of the uranium supply for the Northern Hemisphere comes from Namibia and Australia. A single deposit at Jabiluka in northern Australia contains more uranium than was produced in the US from 1948 to 1970.

ENRICHMENT

95% of non-communist enrichment facility is in the United States, which has 3 enrichment factories. Britain has one establishment, at Capenhurst, which also enriches uranium for use in the Polaris and Trident reactors. There are also factories in France and in the USSR. The new technique of laser enrichment is expected to be in use for uranium by 1985, at Oak Ridge in the USA. This could be extended to enriching low-grade plutonium from spent-fuel rods for making weapons-grade material. Small-scale fairly conventional laser technology could soon be available for countries wishing to convert waste into weapons unobtrusively.

Like much trading nowadays the nuclear industry is not constrained by old alliances or constraints. As an example it appears that 7% of the nuclear fuel for Britain's 'civil' reactors is enriched in the Soviet Union!

REACTORS

The United States has by far the largest reactor programme in the world with over 200 reactors and about 40,000MW of installed potential capacity. In comparison, the Soviet Union has a small programme with only about 40 operating reactors and 13,000 MW of installed capacity. France has the largest European programme with 45 reactors in operation

or under construction, followed by Britain with 41 (including Torness), W. Germany with 27 and Canada with 20, while Norway, Sweden, Finland, the Netherlands, E. Germany, Spain and Portugal have also joined the nuclear club (at least one research reactor level).

The scale of a country's reactor programme clearly dictates the amount of spent fuel produced and so gives an indication of the potential pool of domestic weapons-grade plutonium. Without going into great detail, there does seem to be an awful lot of the stuff about, considering that a typical 1000MW PWR produces 25 tonnes of spent fuel a year.

FBR'S & REPROCESSING

Fast Breeder Reactors are at present the preserve of the Soviet Union, United States, Britain and France. They are theoretically an effective way of turning spent fuel into weapons-grade plutonium - the French already plan to use their largest fast reactor, Super-Phoenix to supply the plutonium to double their nuclear weapons capability, some of which will be deployed as submarines in the N. Atlantic. However both the British and American programmes are in limbo at the moment, in Britain due to technical and financial problems, in the US because of Carter's moratorium.

Reprocessing facilities are in operation in several countries, but only France has a large-scale waste reprocessing facility for the AGR's and PWR's, at Cap-de-la-Hague. Compared with uranium enrichment, reprocessing can be used to by-pass the difficult initial stage of the fuel chain. This means that in the N. Atlantic region W. Germany, and Belgium already have bomb capability.

WASTE DUMPING

Germany, France, the UK, the Netherlands, Belgium and Switzerland have all dumped low and medium-level waste into the N. Atlantic. Britain is by far the worst offender dumping 98% of the total radioactivity dumped into the sea in recent years.

PROLIFERATION

For 25 years the USA has been the major exporter of nuclear technology - both to Europe and to the Third World. In 1973, General Electric and Westinghouse accounted for more than 90% of the world's nuclear trade. In the 1970's the situation changed as licensing agreements with G.E. and Westinghouse allowed French, German and other companies to become nuclear exporters.

Once the European side of the N. Atlantic had acquired the right to sell the technology, the stage was set for massive proliferation from the N. Atlantic core area to the Third World periphery. Third World countries such as India, Israel, Taiwan, South Africa, Brazil, Argentina, Turkey, S. Korea and Egypt have all received nuclear facilities. As the experience with India shows it is only a short step to 'bombs for everyone'!!

In sum, the nuclear fuel chain in the North Atlantic underpins the military programmes of the major antagonists, while presenting a major environmental hazard at the same time. The logic of 'export or die' has meant that the problem of survival in a nuclear age has become worldwide!

NUCLEAR POWER = NUCLEAR WEAPONS NUCLEAR POWER = NUCLEAR WEAPONS

appropriate technology...

Potential Energy.

"On current cost estimates **all** of the renewable sources examined show some prospects of being cost effective" by 2025 but "all the technologies seem to need some sort of government backing to help them get established". So says the recently released **Energy Technology Support Unit** report on renewables - now made publicly available after initially being withheld by the Dept. of Energy.

Unfortunately, following the ACORD review in 1982, the Government has decided to cut funding to several of what it sees as the 'less promising' options, including wave power offshore wind, and active solar, leaving on-land wind and tidal power as 'front runners' - along with geothermal. The total budget for 1983 is thus likely to be £12m - cut from approx. £14m.

This decision is justified on unit costs grounds. As the ETSU report points out:

"..... the Severn Barrage generally has the best economic prospects of all the renewable sources, bettered only by onshore wind power on the latter's lowest cost. In general tidal power is roughly on a par with nuclear power in the benefit/cost ratios which it produces".

The estimated unit cost for the Severn (inner) barrage has been cut from 3.3p/kWh (Severn Barrage Committee - Energy Paper 46) to 2.8p/kWh, while the estimated range for on-land wind turbines is between 1.9 - 4.3p/kWh.

While on-land wind and tidal power may have a place in the energy economy, it is shortsighted to delay the development of the other options, in terms of the scale of the resource if for no other reason. As can be seen from ETSU's estimates, offshore wind and wave both have significantly larger potentials than tidal and on-land wind, (50% and 25% respectively) while important contributions may be obtained from small independent wind-turbines, solar and bio-fuels.

MARKET FORCES

The emphasis in the Government's approach is on leaving it to the market to 'pick up' promising technologies. But as ETSU clearly recognise, the market mechanism may not allocate investment resource in the national interest with regard to the development of a rational energy policy; the achieved market share for any particular option "might differ from the nationally desirable market share". It therefore calls for (albeit limited) government intervention - via demonstration projects "to help achieve market penetration" and to "help overcome what could be categorised as market inertia".

While most AT enthusiasts would support the proposal for more demonstration projects, they are clearly not sufficient by themselves. More direct market incentives are required - both for producers and consumers. Britain is one of the few countries which does not offer some form of subsidy to stimulate homeowners to install improved energy supply systems e.g. via solar heating. The new energy systems have to compete on an 'open' market with conventional fuels that are heavily subsidised, directly or indirectly.

The whole field of 'market adjustment' via subsidies, grants and fuel pricing policy need urgent attention.

For example, in some cases the **rating** system actually penalises home owners who instal solar heating systems. This happened in Edinburgh recently, where the Gross Annual Value rate levied on a solar house built by Miller Homes Northern in Fairmilehead increased by 5%.

Dave Elliott.

ETSU estimates of Renewable Energy Potential (1982)

Electricity production		**Heat production**	
Ultimate potentials of % of current electricity consumption		Ultimate potentials in m.t.c.e./pa.*	
- Offshore wind	50%	**SOLAR**	
- onshore wind	20%	Passive	3
- tidal (all sites)	15%	Active	4
(Severn)	5%		
- Wavepower	25%	**BIOFUELS**	30
- Geothermal (hot rocks)	10%	**Geothermal**	
- Small wind	10%	Aquifers	1-3
- Micro-hydro	1%		

(* m. tonnes of coal equivalent)

Estimates from **'Strategic Review of the Renewable Energy Technologies' ETSU, November 1982.**

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If you want to celebrate International Solar Energy Day, here are some ideas for events:

Solar tours by bicycle or bus, around local solar, wind and energy conservation projects, a good media event.

Solar **'open days'** at people's homes to show solar and energy conservation projects in action, again a good media event.

Sun Day **proclamations** made by local councils, which can be done in conjunction with a press conference.

Or there are the more traditional carnivals, fairs, talks and films or perhaps a 'Sun Run', which can generate cash as well.

These, and many other ideas can be found in the **Sun Day Briefing Pack**, available for a large 16½p s.a.e. from:-

"Sun Day 1983", 25 Gordon St., Leamington Spa, Warwickshire.

Another very useful background document is the RENEWABLE ENERGY SOURCES Broadsheet, published by SCRAM. 5p each, 25 for £1, 100 for £3 (inc. postage).

US Solar R&D Cutbacks

President Ronald Reagan has turned to science policy as part of his plan to remedy the nation's economic problems. The budget for 1984 submitted to Congress on 31 January offers a 29% increase in Defence Research and Development and a 10% increase in basic research in the civilian and military sectors. In some research fields, increases as high as 25% are proposed, while some applied work, such as solar and fossil fuels research, is being cut.

The budget proposes an increase for all federal Research and Development to $47,000m, an increase of 17% over the estimated level for fiscal year 1983. Of this, $29,900m will go to Defence R&D, an increase of 29% over 1983. The budget for the National Science Foundation (NSF) would be increased by 17% to $1,200m.

Looking at the detailed proposals in the energy field, nuclear physics research is to receive a modest(!) increase of $90m over the 1983 level to $553m. Fusion is to be supported at $467m, unchanged from 1983. The Clinch River Breeder Reactor is to receive an increase of $62m, up from the 1983 level of $541m. The Administration hopes once again to cut solar energy, conservation and fossil energy research programmes, this time by $450m - over half of the current $707m budget.

Harwell Bulletin. 18.2.83.

NUCLEAR POWER = NUCLEAR WEAPONS NUCLEAR POWER = NUCLEAR WEAPONS

Safe Futures.

ACE..

Towards the end of last year the anti-nuclear power movements in Denmark and West Germany brought out two large, bright and impressive brochures clearly presenting the case for a non-nuclear energy future. The German one, with a first print-run of half a million, will eventually be put through every letter-box in the country. The Danish one will initially go to half a million households - about one fifth of the whole country. Simon Taylor has been studying them:-

The first brochure published by the OOA*, called **"Planning without Nuclear Power"**, was devoted mainly to presenting a non-nuclear energy plan for Denmark based on renewable energy, conservation and natural gas. It has been distributed to every household in the country over the last two years. This second one, in newspaper format, with coloured front, back and centre pages, is entitled simply **"We say: Give up Nuclear Power!"** The 'We' of the title being not only the 25 Danes pictured on the cover, representing a wide cross-section of Danish society, but also **61%** of all Danes. This figure, which also appears on the cover, comes from an extensive opinion poll taken last autumn, and stands in marked contrast to one taken in 1974, when only 23% were against nuclear power.

DANISH YES TO RENEWABLES

The brochure includes articles on the economics of nuclear power, the problems of nuclear waste disposal, Barseback (the Swedish nuclear power station just 20 kilometers from Copenhagen), uranium mining in Greenland, and the links between civil and military nuclear power. Despite the extensive coverage of non-nuclear energy in the first OOA brochure, 'Planning without Nuclear Power', four of the twelve pages of **'Give Up Nuclear Power** are devoted to this subject. There the claim is made, backed up by the study **Nordiske Energisystem**, Lund, 1981, that in 50 years' time Scandinavia's energy needs could be met **entirely** by renewable energy sources. In order to achieve this the three countries, Norway, Denmark and Sweden would have to pool their resources.

GERMAN INITIATIVES

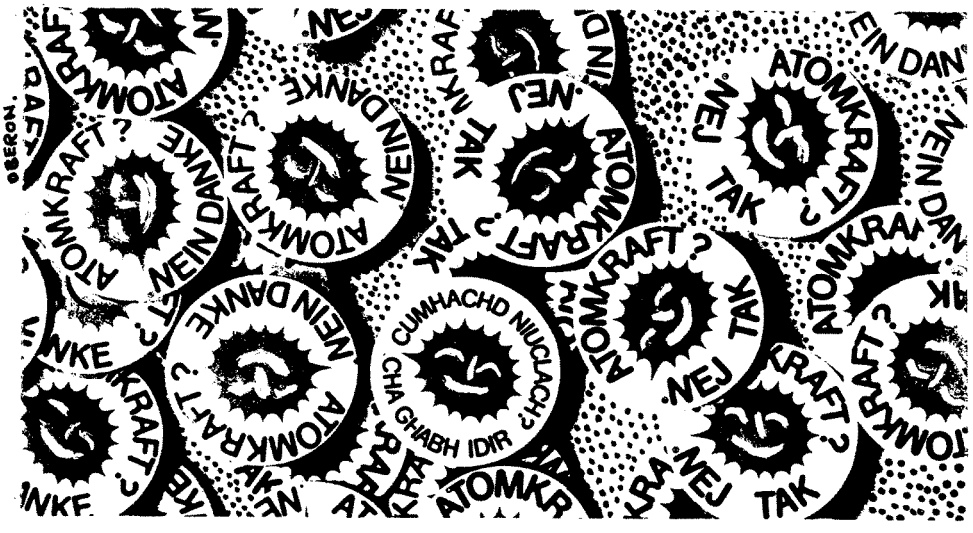
This 12" by 12" beautifully produced glossy 10 page brochure is called **'Energy Supply without Nuclear Power: Information from Citizens' Initiative Groups'**. The intention, as set out inside, is to present the civil nuclear power issue objectively, although it is admitted that the longer we study nuclear power, the more objectionable we find it. However, clarity is of paramount importance. And this goal has certainly been achieved. There are articles on the nuclear fuel cycle, energy in general, heat-pumps, the nuclear industry (entitled the 'Megawatt Clan!'), national energy politics, with 4 pages on soft energy paths. They are all presented simply and clearly, with eye-catching diagrams, photographs and photomontage.

A draft for this brochure was widely distributed for comment at the end of 1981. We reviewed it in SCRAM Energy Bulletin No. 27. The only criticism I made then must also be levelled at the final version - it makes no mention of the links between civil and military nuclear technologies.

SCOTLAND/BRITAIN TOO

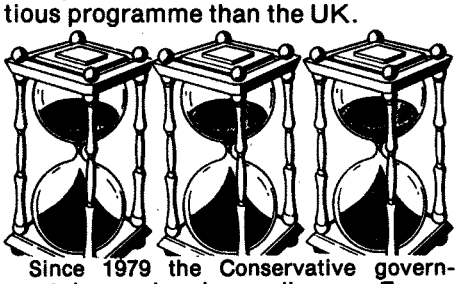
When? And why not? We are keen to hear readers views on whether they think this kind of action would be a worth-while next step in the anti-nuclear campaign in this country. I personally think it would be.

BETTER ACTIVE TODAY THAN RADIOACTIVE TOMORROW



*OOA stands for **Organisationen til Oplysning om Atomkraft** (The Organisation for Information on Nuclear Power). Their address is **Rysegade 19, 2200 Copenhagen N., Denmark.**
The German brochure is from **Umweltzentrum Kassel, Elf Buchenstr. 18, 35 Kassel, W.Germany.**

The Association for the Conservation of Energy (ACE) continue to publish carefully researched material supporting the case for a large investment in Energy Conservation in the UK. Pete Roche here reviews one recent report which compares the conservation programmes of all ten EEC countries, and concludes that most European countries have a more ambitious programme than the UK.



Since 1979 the Conservative government has reduced spending on Energy Conservation and substituted high energy prices to reduce demand. There is no doubt that the energy savings that have occurred have more to do with falling industrial output and 'fuel poverty' than increased energy efficiency. With no immediate financial incentives, consumers invest in few measures to reduce their energy use All the evidence from EEC countries points to the conclusion that higher pricing of energy has to be supported by financial incentives if real energy savings are to be made.

The ACE report supports the statements made by the House of Commons Select Committee on Energy and by the EEC Commission that the energy conservation programme in the UK is distinctly limited.

DENMARK

The Danes, with a climate not unlike northern Britain, have the highest insulation standards in Europe. Home owners and tenants get 20% and 30% grants, respectively, towards energy conservation measures. If a grant is applied for, the house is visited by an energy consultant, who draws up a scheme for bringing the house up to current insulation standards. All dwellings sold after 1985 will have to produce an energy consultant's report on the state of the dwelling. So if work is needed to bring the house up to modern insulation standards, this would be reflected in the sale price of the house. Effective arm-twisting.

FRANCE

The French government also has an ambitious programme which aims to reduce their trade deficit by 55 billion francs by 1990 and create 330,000 jobs. The benefits of a conservation programme on this scale are obvious.

This report gives strong reasons for a dramatic increase in energy conservation investment in the UK, encouraged by financial incentives from the Government.

***Comparison of the Energy Conservation Programmes of the UK and other EEC Countries.** ACE 39a Gloucester Place. London W1.

NUCLEAR POWER = NUCLEAR WEAPONS NUCLEAR POWER = NUCLEAR WEAPONS

Labouring a point.

Too often our movements have been portrayed, in the media and elsewhere, as acting **against** the interests of working people. This myth is effectively debunked in a new book from the States, **"Fear At Work: Job Blackmail, Labor and the Environment."**

Published at a time when the ideological attack of the Right is daily becoming stronger in the West, it describes the appalling social and economic effects of the relatively unrestricted reign of American capitalism. The authors, who both work with the Washington DC-based **Environmentalists For Full Employment** [EFFE] span both environmentalism and US labour history in a down-to-earth punchy style. The result is a practical handbook with some theoretical backing.

The initial chapters introduce the idea of **job blackmail**, - where workers are presented with Hobson's Choice: **either** full employment **or** a safe workplace and a clean environment. But the authors point out that corporate executives themselves attribute less than one per cent of factory closures to Environmental Protection regulations. So this particular choice obscures the real issues. These are clearly explained as the need for business to control as much of the work process as possible - both in the interest of profit and of suppressing alternative initiatives from the workforce.

STRATEGY FOR JOINT ACTION

The history of resistance to "business as usual" both at work and outside it is usefully summarised in two very good chapters on the American labour and environmental movements. From this the authors conclude that there are good reasons for combined worker/environmentalist actions. They give examples such as the "Green Bans" by Australian building workers, Lucas Aerospace Shop Stewards' initiatives, and the cooperation between the Steelworkers Union in East Chicago and local groups concerned about the pollution of Lake Michigan.

A great deal is covered in this book and although I like the homely, non-academic style, it suffers from a certain lack of precision. Basic ideas tend to be too often repeated and enlarged upon - backed up with too many trite quotations from self-appointed leaders. The authors are much more at home with the specific than the general; with personalities and the cut and thrust of American business and politics than with the underlying analysis needed to expose economic and social motivations. This is entirely in keeping with the American political and intellectual consensus. This may make the book more immediately acceptable to its intended public, but it does mean that the reader has to wade through an awful lot of examples and some loose thinking.

The lack of reference to the world sitation is a further drawback. An international perspective might have helped clarify such questions as the ultimate effect of environmental regulations on US capitalism. In Sweden for example, with a long history of effective factory legislation, the result has been to hasten the decline of the less efficient industries. I feel the authors also suffer from an Anglo-Saxon aversion to political analysis, and especially to the European Socialist and Anarchist traditions. Both of these would have been useful in more effectively organising the material in this book.

At $10.95 the book is possibly too expensive for most British readers. However it is a most important insight into this little explored field. It is decisively pro-worker **and** pro-environment, showing that the policies we campaign for would **improve** not only the quality of life but workers' job security too!

James Kinnaird.

FEAR AT WORK: Job Blackmail, Labour and Environment, by Richard Kazis and Richard Grossman, The Pilgrim Press, New York. $10.95. (£7.25 plus 60p p&p, from the Smiling Sun shop).

25 Years..

Published to celebrate their 25th anniversary, **The CND Story** is a collection of short essays on various aspects of CND written by well-known campaigners. It is arranged under chapter headings such as 'Problems of the 1960's' and 'A One Issue Campaign?' with a fairly lengthy introductory history of the campaign.

The book has two main strengths; firstly, the writings reflect the diversity of themes and perspectives within the Movement, and secondly, the introductory history provides a fairly comprehensive chronology of formative events in the Movement's development from the early days of anti-nuclear test campaigns, through the rise and decline of mass protest in the late 50's and early 60's, right up to the present post-'79 revival.

AMUSING REMINISCENCES

In the absence of a more substantial historical study, this slim book could fulfil an educative function. The writings touch upon persistent problems of strategy and internal dissent which seem inherent in the Campaign. However, it is the commitment of the contributors, and their often amusing reminiscences which makes the book both readable and appealing. In a collection of short pieces it would be wrong to expect profound analysis or original argument; instead, these contributions from active campaigners are often stimulating and full of insight, even when dealing with well worn themes.

Disappointing features of the book are the apparent ignorance of the links between nuclear power and nuclear armaments exhibited by most of the contributors, an omission of any recognition of the hard slog at the grass-roots and any account of life in the Peace Camps... but then they are history in the making! **The CND Story** is welcome for expanding on the background to one of the key campaigns in the Peace Movement today.

J. Mattausch.

Debunkered

With the recent flood of books on nuclear topics it is easy to grow irritable rereading the same old material. So any author or publisher considering yet another analysis of the nuclear threat should consider precisely what they have to offer that has not already been said.

In this, **Defended To Death** is more like a book born of the intense concern of the authors than one whose market has been coolly appraised by its publishers. That said however, there is much to commend it.

It is bang up to date with the latest twists in the arms race, and it is the product of a wide-ranging interdisciplinary team. In it's readable and frequently well-argued chapters, the ten authors work through the familiar arguments about defence, deterrence, civil liberties, proliferation and nuclear power and come out clearly on the side of the angels.

They present a forceful and thoughtful case for nuclear disarmament, spiced by well-chosen quotations from eminent dissenters, and end with a fascinating analysis of possible alternative defence strategies.

PROPAGANDA DEBUNKED

In particular they show how the mythological US 'bomber gap' of the 1950s was followed by the equally invalid 'missile gap' in the early 1960s, which was in turn succeeded by the illusory "anti-ballistic missile gap' - Government propagandists are adept at disguising reality with simplistic, often-repeated phrases.

The book contains several gems. It tellingly exposes the false unilateralist/multilateralist dilemma, and caustically debunks the Ministry of Defence's analogy comparing nuclear strategy to playing a game of chess. It also contains a useful, if occasionally confused, section on the civil/military nuclear connections.

In places the authors are perhaps guilty of trying to cover too much in too small a space, and the editor has obviously had difficulty in organising this mass of material. As a result it is sometimes hard to follow the book's overall logic. And though **Defended To Death** brings together material of the highest calibre, the tone of the ten male Cambridge dons in quoting Lords, Generals, Field Marshalls and letters to **The Times** occasionally verges on the élitist.

Ed Roberts.

DEFENDED TO DEATH: A study of the nuclear arms race from the Cambridge University Disarmament Seminar, Gwyn Prins, Pelican, **£3.50 [+ 40p p&p].**

THE CND STORY: The first 25 years of CND in the words of the people involved. Ed. John Minnion & Philip Bolsover. Allison and Busby. **£1.95 [+25p p&p].**

reviews...

Huge areas of the North of England are constantly threatened by Windscale, the world's dirtiest nuclear establishment. Greenpeace have now collected together, in a new pamphlet - **The Windscale File,** an introduction to the issues surrounding the giant reprocessing factory on the Cumbrian coast.

Greenpeace

Sub-titled "a lay-guide to living (and dying) with a nuclear neighbour", this is a glossy pamphlet which jumps out at you from the bookstalls. It is graphically illustrated throughout, and however much you may know about Windscale it makes disturbing reading.

Deadly spent fuel rods are transported around the country in 50-tonnes "coffins", which travel by road and rail through some of the most densely populated parts of Britain. Waste is also transported to Windscale, via Barrow docks, from various parts of the world. Tests carried out on the steel flasks used to transport the wastes are inadequate, and an accident could be catastrophic.

But dangers to health are not limited to major accidents... the pamphlet examines the likely effects of day-to-day radioactive emissions from Windscale. Plutonium and Americium are poured out into the Irish Sea, earning it the unenviable title of the most radioactive sea in the world. Greenpeace may have made front-page news by disrupting the dumping of nuclear wastes in the Atlantic but the background to this campaign is given here.

It is good to see Greenpeace bringing Windscale into the forefront of public debate. There have been many developments since the 1977 Windscale Inquiry and this pamphlet ties up many of the loose ends. It gives a brief synopsis of what Greenpeace have been doing about Windscale, covering all the related issues, from plutonium nitrate shipments to incidents of cancer in Cumbria.

Drawing extensively on the series of research reports prepared by the Political Energy Research Group (PERG), this pamphlet is more than just a useful introduction to the dirty end of the nuclear chain. It is also a refresher on the issues surrounding Windscale, exposing the nuclear industry's attempts to sweep it's worsening mess under the carpet.

Pete Roche.

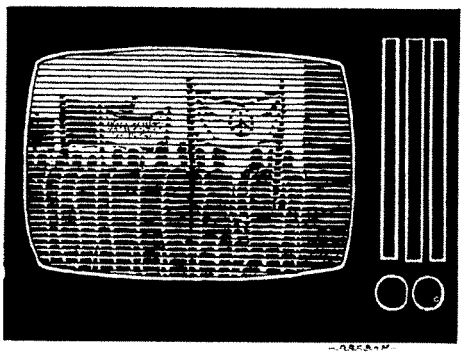
THE WINDSCALE FILE - £2 from Greenpeace Ltd., 36 Graham Street, London N1 8LL. (01-251-3020).

NUCLEAR NIGHTMARE

This video outlines the events surrounding the near catastrophic accident at Three Mile Island, and the consequences for Britain.

Britain has plans to build PWRs similar in design to the Three Mile Island PWR. The American PWR has been severely criticised on several grounds, safety design coming in for the heaviest criticism. The issues concerning reactor safety have created much controversy, and an American, Bob Pollard, resigned from the American Nuclear Regulatory Commission, because he believed that the NRC and nuclear industry were ignoring evidence pointing out defects in reactor safety systems.

With so much criticism of the PWR, one wonders if the CEGB is wise to push hard for the PWR? If the experiences of the American PWR nuclear programme are anything to go by, one would have to say NO!



NUCLEAR POWER - WAR AND PROFIT

This video argues strongly that nuclear power and nuclear weapons are inextricably linked, and that nuclear power has little to do with need and economics, but operates to boost company profits.

These arguments are passionately put forward by trade union leaders, academics, doctors and scientists. "Nuclear Power - War and Profit" states that both civil and military nuclear industries threaten our lives and destroys the nuclear industry's public relations arguments.

MR. BENN'S SECRET SERVICE

This video features the last Labour Government's Energy Secretary, Tony Benn, voicing his concern about the activities of Britain's civil servants, and in particular, his experiences with civil servants in the Department of Energy.

The most vivid of these, was the signing of a contract by Britain, whereby they obtained uranium from RTZ's Rossing mine in Namibia. Benn has always insisted that he was never fully informed of events, but whether one believes him or not, one cannot but agree when he states that civil servants have to become more accountable to their ministers and the public.

These videos and a full list of titles available from CONCORD FILMS, 201, Felixstowe Road, IPSWICH. IP3 9BJ. Tel: Ipswich 76012.

groups...

Youth CND

On May 7th, this year, Youth CND are holding a Festival in London. There will be major bands there (including **Gallery Macabre, Paul Weller, the Damned**, etc.) and a village area with stalls, street theatre and speakers among other things.

Being the major anti-nuclear event of the foreseeable future a lot of time and energy is being diverted into making people aware that there are hundreds of thousands of young people demonstrating against the fatal course that the arms race is taking.

To build for this Youth CND is having a speaking tour around Scotland to revive flagging interest and to talk about what young people can do to stop nuclear weapons and nuclear power.

To help make it cheaper for travelling to the Festival Youth CND have launched a Festival Appeal Fund from which buses will be subsidised. So far in Scotland only £50 has been raised but hopefully this will grow as the Appeal leaflets become more widely distributed. (There was one in the last copy of the SCRAM journal so if you feel in a generous mood and can afford it please make a donation. If you can't afford any money but want to help in some way, ask for some Appeal Fund sheets to pass round other people or even ask for some 'Refuse the Cruise' petitions the donations from which will go towards subsidising buses as well.)

Money has tended to be the big problem in the past and still continues to be. However, YCND has received some money from Scottish CND and so the Scottish Youth CND will be concentrating on publicising happenings at Faslane Submarine Base and Peace Camp and trying to get a lot of young people there for their demonstrations.

Youth CND feel it is important to keep these places and the military services in the public eye showing their real face of what they really do and who they really protect and the links they have with nuclear technology. YCND will be producing leaflets on the Army, Navy and the RAF which will be available to anyone who has one of these visiting their school or town.

SYCND, c/o 11 Forth Street, Edinburgh.

NUCLEAR POWER = NUCLEAR WEAPONS NUCLEAR POWER = NUCLEAR WEAPONS

Taking up Mr. Tebbitt's advice, and having heard about BNFL's stated good relations policy with their employees, Little Black Rabbit recently cycled down to Windscale (whoops sorry, Sellafield), in the hope of obtaining a job. She was interested however, to hear that just the other day a BNFL Windscale worker was forced to resign after his continual questioning about the efficiency of the plant's laundry system. He had stated that the laundry was turning out 'clean' overalls which were still contaminated with traces of radioactivity.

Furthermore, rumours would suggest that automatic alarms warning of radioactivity on clothes have been adjusted so as not to sound too often, and that BNFL has been trying to get approval from the NII to slacken regulations on how much radioactivity is allowed on clothing.

Little Black Rabbit was given assurances that radioactivity on overalls was within safety limits (as of course are the emission levels of radioactivity into the Irish Sea) and that the worker concerned was difficult to work with!

New Aerial cleans brighter - it's biological! BNFL cleans brightest - it's radio-biological!

Pedalling on from Windscale, Little Black Rabbit met a not too distant relative, Mabel the Mole, deep in the catacombs of the CEGB HQ in London, where she was interested to hear that Sir Walter Marshall is not a very popular person these days among the CEGB hierarchy, with rumours circulating that he has been throwing his weight about in more ways than one. Mutterings of 'suspect' connections with Westinghouse and international financiers, Kleinwort Benson, and of bullying tactics towards colleagues. It would seem that all it not well and that a petition calling for his resignation is circulating CEGB HQ!

Little Black Rabbit xo

DIARY

NUCLEAR POWER = NUCLEAR WEAPONS NUCLEAR POWER = NUCLEAR WEAPONS

April

2nd **Scottish CND Demo** - Glasgow. Details SCND, 041-331-2878.

3rd **Embrace The Base** & actions at Faslane nuclear submarine base.

8th Talk on **"Disarmament & Developments"** by Judith Hart, MP, Moir Hall, Glasgow. Details, 041-331-2878.

8-10th **Campaign Against Arms Trade** National Meeting, Glasgow. Details CAAT, 01-278-1976.

8-10th **Nuclear-Free North Atlantic Conference,** Glasgow. Details, 041-331-2878.

8-10th **Daws Hill Peace Camp,** Days of Action. Details, 062-85 (Bourne-End) 22624.

9th Public Meeting on **"Nuclear Expansion in the N. Atlantic"**, International speakers, Moir Hall, Glasgow. Details, 041-331-2878.

11-12th **Dumbarton Sheriff Court.** Trials of 20 people arrested for blockading Faslane on 21.3.83. Support needed. Details contact SCRAM.

May

1st **"Breaking The Nuclear Chain"** Conference, organised by Edinburgh University Students Association & SCRAM, 60, The Pleasance, Edinburgh, 10 - 5 p.m. Workshops, speakers, films etc. Details, SCRAM.

7th **National Youth CND Festival,** London. Details, Scottish YCND, 031-557-4284.

12-14th GLC International Conference on **"The Urban Transportation of Irradiated Fuel"**, The Connaught Rooms, Gt. Queen St., London.

23rd **Scottish Student CND** termly meeting, Dundee. Details, SSCND, 031-557-4283.

27-29th **FoE's Green Rallies** in London, Leeds, Bristol. Contact, 01-837-0731.

30th March from St. Andrews to **Leuchars RAF Base.** Details, Margaret Squires, 0334-72638.

30th **Book Fayre,** McEwan Hall, Bristo Sq., Edinburgh. In aid of "Walk For Life" Torness Festival. 10 - 4 p.m. Details, SCRAM.

9-14th BERLIN - **2nd European Nuclear Disarmament Convention UK.** Contact 0602-784504.

19th **"Walk For Life"** departs Faslane. Contact SCRAM or 01-806-4615.

21st North-West Regional Conference on **"More Jobs Without Nuclear Power"**, Country Hall, Piccadilly, Manchester. Details, Mike Franks, 061-225-5328.

24th **International Women's Day For Disarmament.** Womens' strike for Peace. Decentralised activities eg. Rally and crossing of Forth Road Bridge - contact Janet, 031-556-8933, Lorna, 031-332-6765, Sos, 031-447-9353. UK contact: c/o 16, Arundel Road, Brighton, Sussex. Donations welcome - payale to "Womens' Peace Action".

28-30th **"A Walk For Life"** in East Lothian along the proposed rail route for nuclear waste from Torness through Edinburgh. Details, SCRAM.

30th **Cycle For A Nuclear Free Future,** Edinburgh - Torness. Details, SCRAM.
Festival of Recreation at Torness. Music - games - stalls - food - crêche & more. Details, SCRAM.

31st May - 3rd June **Blockade of Upper Heyford,** USAF Nuclear Bomber Base. Details, Oxford (0865) 726441.