

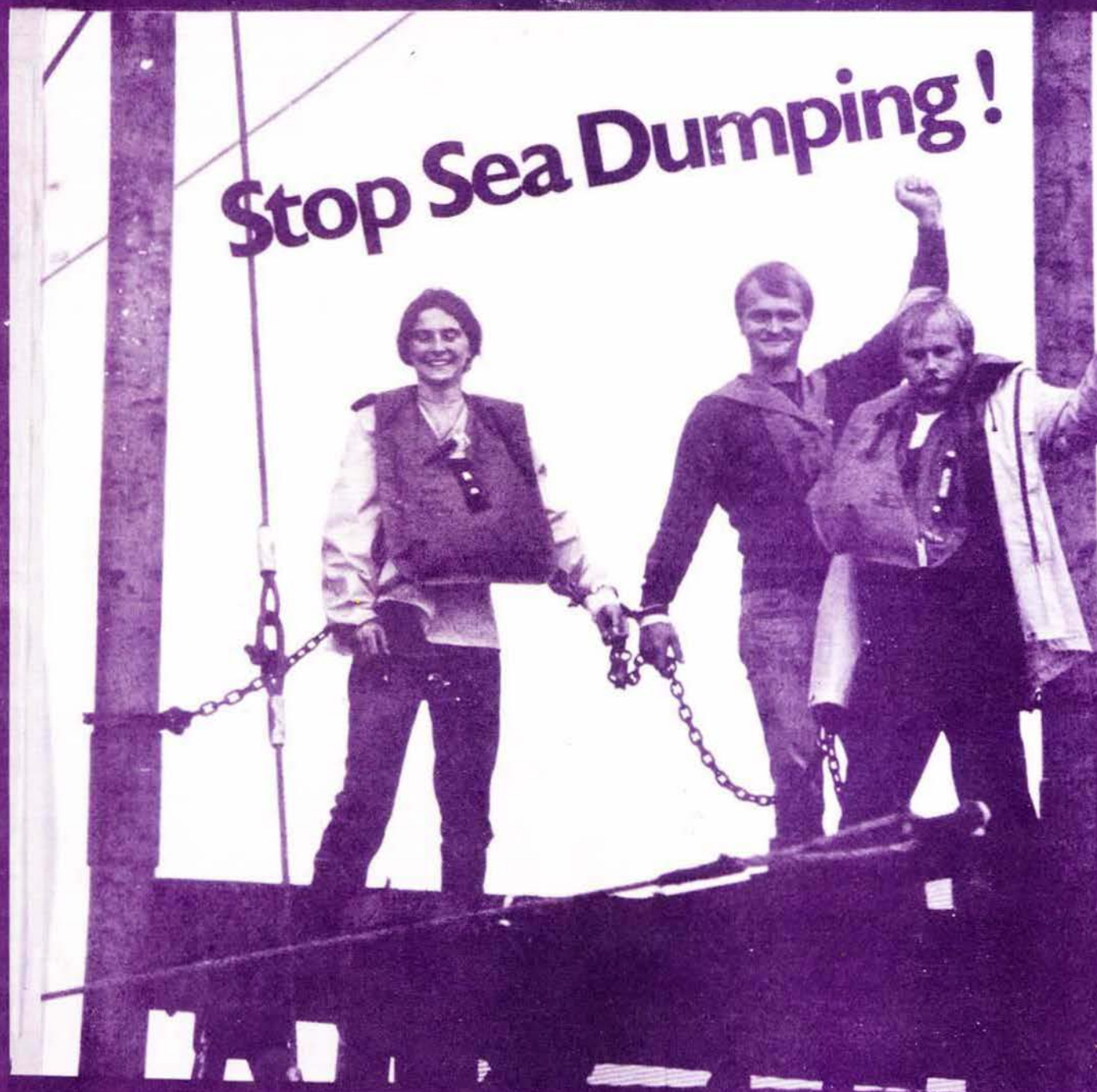
SCRAM

ENERGY BULLETIN



No 32

40p



REACTORS - world cutbacks - but more UK sites revealed
DUMPING - Government plans... Greenpeace acts
plus ... **FREE Pull-out Broadsheet on INSULATION**

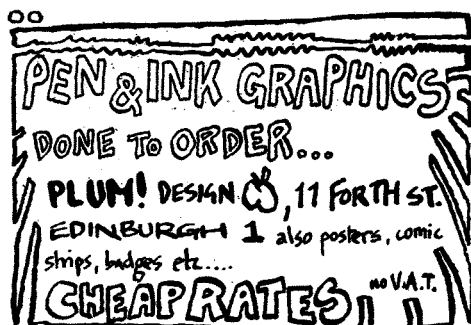
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CoverPhoto

This issue's cover shows Maggie McCaw (USA), Bernt Von Borstel (Germany), and Erick Anderson (Denmark), activists from Greenpeace Ltd.

They chained themselves to a tipping platform on the British nuclear dumping ship MV Gem, to prevent the tipping of 2,700 barrels of nuclear waste into the Atlantic. They remained for 76 hours.

See pages 6 and 7 for full details.



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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 Street, Edinburgh 1. [031 557 4283]. We welcome contributions.

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WISE

The by-line "WISE" on many of our news stories stands for "World Information Service on Energy". This is an international news network serving anti-nuclear movement publications and activists.

WISE publishes a monthly magazine, a Stop Uranium Newsletter, and a fortnightly News Communiqué, 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).

Comment

Over the months to come we are going to be hearing more and more about the proposed new nuclear power station at Sizewell (Sizewell 'B'). Much of the opposition will concentrate on the pros or cons of the type of reactor proposed — a Pressurized Water Reactor (PWR). The PWR became notorious after the accident at Three Mile Island in Harrisburg, USA. This has been made use of in the campaign against Sizewell 'B'. For example the Anti Nuclear Campaign (ANC), calls upon people to campaign against the "American Style PWR". Playing on people's nationalistic prejudice seems to be missing the point. A PWR is not welcome at Sizewell, but nor would be an Advanced Gas Cooled Reactor, or a Magnox Reactor, or any other kind. The fact that the PWR is a different breed of reactor is not the reason that we oppose it.

On pages 6 and 7 of the Energy Bulletin we have 2 articles about Waste Dumping. While the problem of nuclear waste disposal remains unsolved, we must remain opposed to nuclear power.

On page 9 "From Folly to Fiasco" looks at the arguments that were put forward to justify Torness, Scotland's newest nuclear reactor. The story follows the way in which the South of Scotland Electricity Board's arguments have been consistently proved wrong. They talked about the need for extra electricity generating capacity, but the fact is that the Electricity Boards now have an embarrassing over-capacity that makes the commissioning of new nuclear power stations more ludicrous than ever.

They tried to justify nuclear power on the grounds that it would be cheap. But they had to use false figures or unrealistic predictions to do this.

And the promise of jobs was perhaps the greatest con of all.

The Central Electricity Generating Board will use the same type of arguments in an attempt to justify Sizewell B. Placing too much emphasis on opposing PWR's in particular, runs the risk of accidentally implying that we think other types of nuclear power stations might not be so bad.

More nuclear power stations cannot be justified. We may concentrate our efforts on Sizewell B because of the Public Inquiry which will be a good focus to gain publicity and information. But we must remain consistent in our opposition to the nuclear power stations still under construction but nearing completion, like Torness and Heysham. It is not too late to stop them.

And the recent announcement of plans for a nuclear power station at Hinkley Point should remind us that our opposition does not begin and end at Sizewell.

We don't need nuclear power... anywhere.





Nuclear Weapons & Nuclear Power

SCRAM's new Broadsheet explains the links... Free sample on request! Better still send £1 for our Nuclear Information Pack — includes all our broadsheets and our bi-monthly SCRAM Energy Bulletin.

Extensive Mail Order Service — List Free.
Scottish Campaign to Resist the Atomic Menace,
Smiling Sun Shop, 11 Forth St., Edinburgh 1.
(031 557 4283).

STOP PRESS...

...for the latest information on the activities of members of Greenpeace Ltd. (See full story — pages 6 and 7).

Around 10,000 people welcomed the Greenpeace ship "Sirius" at the Spanish ports of Vega and La Caruna on the 12th and 15th September, expressing support for actions carried out by Greenpeace Holland in attempts to prevent the sea dumping of radioactive wastes by the Dutch dumping ship "Rijnborg".

Three Greenpeace members were arrested by the Rijnborg's captain. A Dutch court ruled the arrest illegal, but having released them, the captain has not said where the Rijnborg will dock. Greenpeace has reason to believe that it won't return to Holland, as the ship would most likely be met with demonstration, politically embarrassing to the Dutch Energy Research Centre and the Dutch Government.

Greenham



Greenham Common Women's Peace Camp now have an office. It is open between 4.30 and 6.30 every day. Tel. 01 274 6655. More women are needed for the office rota, so....

On the Slide

The nuclear power industry was once seen as the world's energy saviour. But today, far more plants are being cancelled than ordered. Rob Edwards, co-author of *Fuelling the Nuclear Arms Race*, describes here how the enthusiastic projections of previous decades are being severely cut back. The early 1970's orders of over 60 gigawatts a year now compare with a maximum of 10 gigawatts. The future for the industry is regarded with unmitigated gloom.

A series of recent official reports from throughout the world have painted a bleak picture of the nuclear power industry's economic viability, revealing an acute and deepening crisis. And the blame is laid not just on the economic recession, but also on the increasing effectiveness of the anti-nuclear movement.

Europe Cuts Back

The EEC Commission has pointed out that the nuclear power development envisaged in 1974 for Europe has been slashed by more than half. Projects in Denmark, the Netherlands, Italy and West Germany have been abandoned or substantially delayed. 200 gigawatts of nuclear capacity was originally planned for 1985, but now it is predicted that only 70 gigawatts will actually be on stream by then. The Commission blame the cutback "to a great extent" on the growing opposition to nuclear power throughout Europe.

A report from the Nuclear Energy Agency of the Paris-based Organisation for Economic Co-operation and Development suggests that the growth of nuclear power in western countries over the next 20 years will only be a quarter of the levels forecast five years ago. The report attributes the decline to concern about safety, and problems with reactor siting and radioactive waste disposal.

Public Opposition

The most enthusiastic development of nuclear power had been in France. Now, this has changed. Remy Carle, head of the nuclear construction programme for Electricité de France, expects to order no more than three reactors a year for the next couple of years, compared with as many as six a year in the early years of the programme.

In West Germany the reactor building programme has run into long delays because of the complexity of the licensing procedure and because of growing opposition from the anti-

nuclear lobby. As a result, no reactor building licences have been granted for five years until recently.

Losses on nuclear power contracts have contributed to the financial crisis facing West Germany's second largest electrical company, AEG Telefunken. They admit that they are unable to pay off debts totalling 5 billion deutschmarks.

American Dreams!

But the most dramatic collapse has been in the United States. There were orders for nearly 150 new commercial reactors between 1970 and 1978. In the last three years not a single new order has been placed. And between 1975 and 1981, 70 reactors have either been cancelled outright or indefinitely postponed.

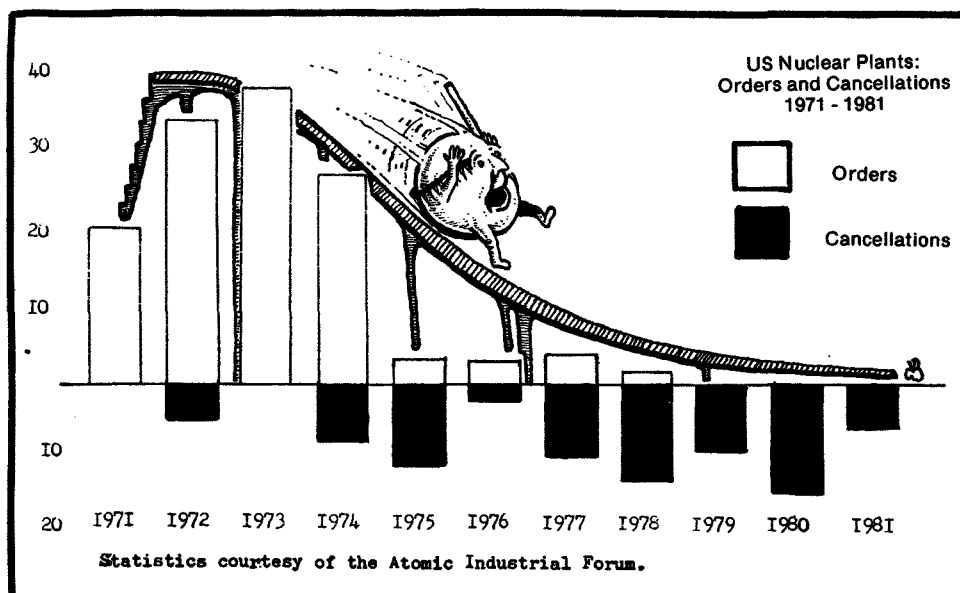
The US Atomic Energy Commission 10 years ago predicted a massive nuclear generating capacity of over

Supply Service, a consortium that has appropriately come to be known by its mangled acronym "Whoops". In 1968, three nuclear plants were proposed for Washington State at a cost of 3.1 billion dollars, to meet a projected 5% annual growth in electricity demand. In 1975 two further plants were added to meet increased demand forecasts, and the total cost rose to 6 billion dollars.

By 1981, with falling forecasts and rising costs, the bill had quadrupled to nearly 24 billion dollars. In January this year two of the proposed plants were permanently scrapped as demand forecasts dropped to less than 2% growth per annum. In April a third plant was mothballed. The cost of completing the remaining two was put at 12 billion dollars. If all goes to schedule, by 1985 "Whoops" will deliver only two thirds of the originally planned capacity, at four times the originally estimated cost.

"Consumers" Pay

There is worse. The two cancelled plants were financed by 2.25 billion dollars worth of municipal bonds. Up till 2018, Washington State electricity users will have to pay off a mind-



1,500 gigawatts by the end of the century. By 1980 the US Department of Energy had cut projected capacity for the year 2000 by over seven times, to around 200 gigawatts.

Two senior US nuclear industry representatives, John Crowley from United Engineers and Constructors Inc. and Jerry Griffith from the Department of Energy, described recently the "chronic instability" of the industry and warned that "the continued deterioration in nuclear power plant construction economics is destroying the economic viability of the nuclear option".

The most spectacular of US setbacks is the unparalleled disaster that has befallen the Washington Public Power

boggling 7.2 billion dollars in principal and interest payments without getting a single kilowatt in return. Meanwhile the plants themselves, swathed in protective plastic shrouds and surrounded by rusting reactor equipment and construction debris, will stand as monuments to an industry that in the end was too expensive to survive.

The director of the International Energy Agency in 1980, Dr Ulf Lantzke, summed up the situation: "Just 25 years ago nuclear power offered mankind a hopeful vision of the future. Today we find ourselves confronted with a paralysing crisis of confidence in the future of nuclear power when we can least afford it".

Bubble Bubble Toil & Plutonium

A new study by Dr Arjun Makhijani, a nuclear engineer and private consultant, concludes that plutonium reprocessing is uneconomical and not technically viable. The report analyses the actual operating experiences of reprocessing spent fuel from nuclear plants, and shows that both industry and US Department of Energy estimates grossly underestimate the cost of reprocessing.

The study recommends that reprocessing should not be pursued, and that existing factories should be shut down.

The report "Bubble, Bubble Toil and Trouble; Reprocessing Nuclear Spent Fuel", examines the operating record of six plutonium reprocessing plants; La Hague (France), Tokai Mura (Japan), Windscale (UK), Mol (Belgium), Karlsruhe (W. Germany), and West Valley (US).

It is available from: HELP, 236 Massachusetts Ave., NE, Suite 506, Washington DC, 20002 USA. \$25 or \$5 to grassroots and public interest groups. Please add postage.

WISE 12.8.82.



No More Sun

The Reagan administration is planning to drastically cut their Federal solar research budget — from \$570 million in 1980 to \$100 million, according to Dr. Francis DeWinter, Chairman of the American Solar Energy Society. It's hard to understand why, when sales of renewable energy equipment have been growing at 155% a year in the past four years. In this time, the number of houses equipped to collect solar energy has risen from 1,000 to 80,000.

Central Control

So much for Spanish devolution. The Spanish government has announced that it will take direct control of the controversial nuclear plant at Lemniz, in the Basque country.

The government move is seen as the final effort to restart the power station which has been paralysed by ETA, the Basque separatist organisation.

Iberduero, the utility concerned, have still to decide whether they can accept this proposal, as it will be a precedent in nationalising a private utility. The Basque government would also be reluctant to see the Madrid government step in like this. Indeed Iberduero would prefer to write off its investment, and seem to be already preparing for this.

Financial Times 7.8.82.

Magnox to Stay

Britain's old Magnox reactors have been granted a stay of execution by the CEBG. The Nuclear Installations Inspectorate are not so happy however. They have ruled that each Magnox reactor will be subjected to a complete safety review after 20 years of operation. The first stations at Berkeley and Bradwell will not be allowed to stay open after next year, unless they meet new and more rigorous standards.

The CEBG refuses to say when the first Magnox reactors may close. They are obviously postponing as much as possible the day when they have to announce to the taxpayer how much decommissioning will cost; probably something like £270 million per station. (Does that include VAT and inflation?).

Bias

The Electricity Consumers Council believes that "the Central Electricity Generating Board does not properly examine investment options.... the appraisals are systematically biased in favour of nuclear". It calls the Board's assertion that it can build a nuclear station as fast as a coal one — in six years — "implausible, whatever overall improvements are made".



Photo: Berni Graham

Women Against War held a demonstration (pictured here) in Edinburgh on August 7th. We were publicly celebrating the release of Izzy and Sos, imprisoned for refusing to pay fines incurred at a demonstration at Greenham Common Airforce Base this March.

We were also marking the anniversary of Hiroshima. For that reason we chose Edinburgh castle, bastion of militarism, as our main focus. 200 women paraded all around the city centre, stopping at strategic points, carrying a 40 foot banner which says "No More Toys For the Boys", singing and leafletting. The climax was the ceremonial laying of a coffin, strewn with red poppies, at the entrance to the castle.

The Finnish Story

Joint exports of nuclear power stations to Libya are planned by the U.S.S.R. and Finnish companies. They hope that sales to Iraq and Cuba will follow. The sale to Libya is no longer supported by the state owned Imatron Voima Oy, although several private companies are involved. Hope is also expressed that Finnish companies may participate in planned Swedish reactor sales to Turkey and Mexico.

SCRAM has just compiled a broadsheet on Finland's Energy scenario. This is available on request, from SCRAM, and costs 10p.

15 Years Later

Almost all India's nuclear power projects are behind schedule by 10 to 15 years. The country has no industrial infrastructure and inadequate indigenous uranium and resources to meet government plans. Nor, the report claims, does it have any trained personnel capable of handling its nuclear power generation.

Most of India's nuclear power stations are suffering leakage and radiation pollution. Tarapur is running below 20% capacity. There is talk of permanently closing RAPS-1 which is shut down and costing 314 thousand dollars a day.

A Piece of Paper

If only India would allow international inspection of its nuclear facilities and reactors, other countries would be very happy to sell India their enriched uranium.

In 1978, the US stopped selling enriched uranium to India. As India has not signed the Nuclear Non-Proliferation Treaty, it was feared that they actually wanted the uranium for military purposes.

However in August this year happy relationships were again restored. US, France and India got together and decided that France should supply India with the fuel. In this way the US has clean hands by not breaching the NPT, and since neither France nor India have signed that worthless piece of paper, they could sort out their own "safeguards". But now the French are feeling peeved. They have been told that like everyone else, they must be content with a guided tour ("inspection") of the Tarapur reactor, and that all the others, including the plutonium extracting plant, are "private".

Well who are we (UK, France, US) to tell them that they must only use their fuel for peaceful purposes? So many of our governments seem happy to sidestep the legislation anyway.

Financial Times 1.9.82 & 30.7.82 and Nucleonics Week 5.8.82.



US Revolt

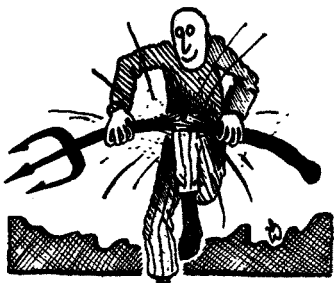
10 years of anti-Trident protest in the US have been stepped up since January '82. They are climaxing in a blockade of the Hood Canal, Bangor, Washington. As we go to press, the USS Ohio is expected to arrive at the base and be the first to receive its 24 multi-warhead missiles there.

There are more than 30 boats waiting at the entrance of the canal ready to block entrance to the Ohio. They will be supported by 14 witness boats, and by a blockade by protestors on shore.

Participants in the blockade range from locals to people from the Pacific Islands, Japan, Germany, Denmark, Holland and Canada.

Please support the protestors by sending telegrams to the Secretary of the Navy, John F. Lehman Jr., The Pentagon, Washington DC 20350, USA, and the Secretary of State George Schultz, Department of State, 2201 C Street NW, Washington DC 20520.

Contact: Peade Blockade Against Trident, Greenpeace Seattle, 4649 Sunnyside Ave. North, Good Shepherd Center, Seattle, Washington 98103, USA.



Our Terms or...

The US House of Representatives voted in August on a recommendation resolution calling for an immediate freeze on nuclear weapons deployment. The resolution was narrowly defeated — 204 votes to 202. Although the resolution would not have been binding, it was the most crucial vote to date on Reagan's policies.

He had rallied wavering congressmen by introducing a counter resolution which called for a freeze only after negotiations of substantial arms reductions with the Soviet Union.

Yawn... What's new?

Financial Times 1.9.82.

Ratepayers in the USA are revolting. People are reacting to the skyrocketing electricity bills for cancelled nuclear power plants. The strongest uprising is in the Pacific North west, where thousands of people are staging candlelit marches, organising blackouts and burning electricity bills at utility board meetings.

The consumer groups, composed of every sector of the community, are working to "put the public back into public power". They have been sparked by doubled and tripled electricity bills. Most homes and farms in the Northwest area are all-electric, and unemployment runs as high as 25%. Economic analysts believe that if the people of the Northwest do not pay their bills, the Washington Public Power Supply System, called "Whoops" by locals, will collapse.

Consumers all over the US ARE REACTING TO THE CANCELLATION COSTS BEING PASSED ONTO THEM: To date we have heard of organised activities in Oklahoma, Tennessee, Ohio, Massachusetts and in California, where consumers are expecting the \$2.4 billion costs from the Diablo Canyon fiasco to be passed on to them.

See page 3 of this Bulletin for more information.

WISE 12.8.82.

Sweden's Waste

Sweden plans to phase out its nuclear energy by the year 2010. But its handling of the nuclear wastes still being created is causing problems. Finland objects to Swedish plans to dump radioactive waste in the sea, west of the Aland islands. The waste would be irretrievable, buried in coves hewn out of the seabed. The fear is that the concrete containers will not last 500 years, and that seepage will result.

That's not all. Sweden's spent fuel transportation is being criticised by the Danes. The spent fuel is transported through the sound that separates Copenhagen from Sweden, on its way to France for reprocessing. This is despite the fact that alternative routes are available which avoid such centres of population.

Pacific News

Federal Taunts

The recently elected state government of Victoria has declared the state a nuclear free zone. This, as reported in the last Energy Bulletin, means no uranium mining, no waste dumping or storage, no uranium enrichment plants and no nuclear power plants.

Unfortunately, the Frazer federal government's recent amendments to Australian laws means that the Victorian state government can only oppose "within their limits of its own powers the entry into Victorian ports of ships which are nuclear powered or carrying nuclear weapons". To demonstrate the point of limited state power the federal government arranged a friendly visit of the US guided missile destroyer Goldsborough to Victoria. The presence of the ship also shows that Victoria is still a nuclear target.

The Frazer Government had warned that an outright anti-nuclear policy would jeopardise the ANZUS Treaty. However, the Victoria Premier, Mr. John Cain has revealed that he consulted the US before the state decision to ban nuclear ships and that they had replied that such a decision would not jeopardise the ANZUS Alliance.

Kangouru Ban

A temporary ban on the French container ship 'Kangouru' was imposed in May by the Sydney Waterside Workers Federation (WWF). This is in retaliation for the ramming of 'Pacific Peacemaker' by a French navy vessel off Mururoa Atoll earlier this year. The Sydney WWF are shareholders in the Pacific Peacemaker. They want the French to pay for the damages to the Pacific Peacemaker and the fines imposed on the ship's captain.

The WWF are also awaiting a response from the French government to a request to stop nuclear testing in the Pacific. Further industrial action is expected if these demands are not met.

Nuke Free Pacific

Twenty groups from all over the United States gathered in Berkeley, California, at the end of July, for a National Nuclear Free Pacific Coordination meeting. This resulted in the setting up of a National Network. The Network will support all work against the militarisation of Micronesia, nuclear waste dumping in the Pacific and the French nuclear testing. They are also aiming to provide a monitoring service on the federal agencies which control Micronesia.

Uranium Sweets

A worker at the Australian Mineral Development Laboratories in Adelaide has said that several tonnes of sweets, including marshmallows, jelly beans and liquorice have been contaminated by radioactive uranium ore which spilled on to and over the sweet boxes at a commercial warehouse in Adelaide. He was called in to conduct tests on the sweets, and reports that the readings from them were 50% higher than what is regarded as a safe level. Following the tests, the sweets were taken away to be dumped.

The incident was reported by Australian Labour MP, Mr. John Scott on June 11th, but Australian government officials deny that it is true.

"Blacks" "Forget it"

Mr. Michael Anderson, a member of a delegation visiting the World Council of Churches in Geneva said that the authorities forgot to evacuate Aborigines from the desert where Australian and British atomic bomb tests were conducted in the 1950's. This follows recent Australian Aboriginal leaders saying that some of their people are still suffering genetic problems and bearing deformed children as a result of these tests.

Britannia Ruins the Waves

The UK has been dumping radioactive wastes in the sea for approximately 33 years. Whilst some of this waste is derived from research laboratories and hospitals, the bulk comes from the civil and military applications of nuclear power. In total, the UK dumps an average of between 90,000 and 100,000 curies or radioactivity a year, and accounts for over 90% of all the man-made radioactivity to enter the world's oceans.

The practice of dumping high volume, low activity nuclear waste in the ocean was established in the late 1940's primarily by Britain, and to a lesser extent by several other western European states, as well as the US. During the mid 1960's, the French ceased such operations due to international and domestic opposition. During the 1970's, the US, West Germany, Sweden and most other European states followed suit, with the exceptions of Belgium, Holland, Switzerland and Britain. In fact Britain, true to standard, actually increased its disposals, and in the 1970's and now, accounts for more than 90% of the total radioactivity dumped.

Low and medium level waste is dumped into the Atlantic Ocean after being packed in concrete lined barrels. It is an irreversible practice. Barrels lying some 4 km beneath the surface are not only out of sight but also out of reach. The entire basis of the sea disposal option is the assumption that the radioactivity will disperse and be diluted by the ocean.

Contamination

But Professor W. Jackson Davis, a marine biologist at the University of California, has found evidence to challenge this assumption. After analysing reports of a series of deep water investigations carried out between 1974 and 1978 of Atlantic and Pacific dump-sites, used but long-since abandoned by the US, he said: "the radioactive wastes did not disperse in ocean waters but rather were bound to the ocean floor... creating an intense, long-lasting source of radioactive contamination of the

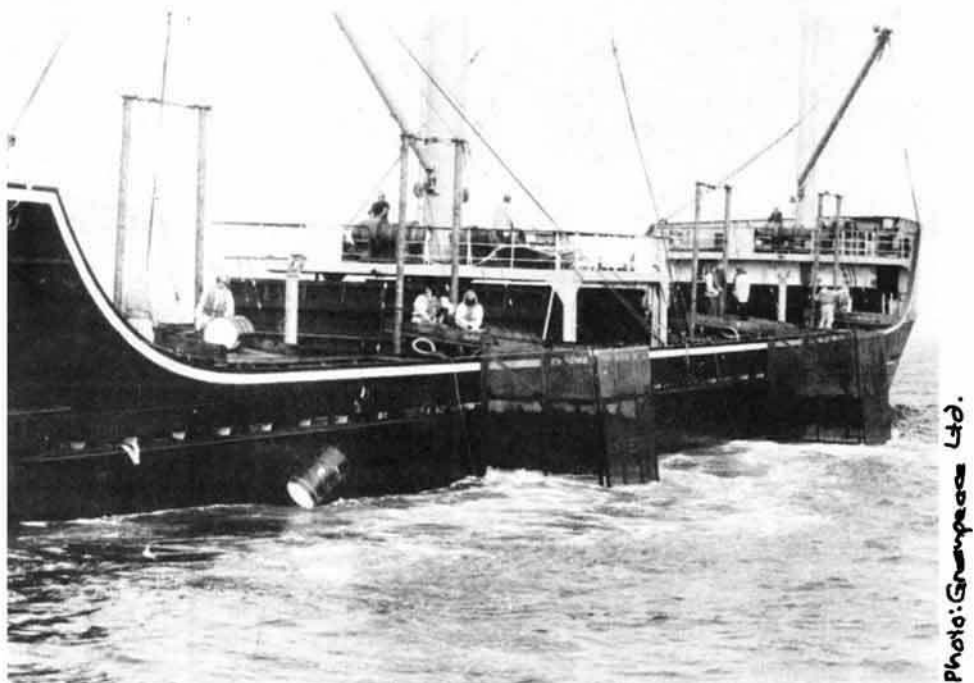


Photo: Greenpeace Ltd.

Barrels of nuclear waste being dumped into the Atlantic. Cages are fixed under the tipping platform to prevent Greenpeace inflatables positioning themselves underneath. But those platforms are occupied by chained Greenpeace crew members.

marine environment... and there is evidence that the canisters of radioactive wastes create artificial habitats that attract living forms, potentially accelerating the entry of radioactivity into the food chain".



Mr. Maurice Ginniff, newly appointed manager of the Nuclear Industry Radioactive Waste Executive (NIREX), has been saying some interesting things about sea dumping. As reported in the *Camborne and Redruth Packet*, August 18th 1982, he explained that radioactive waste was quite safe... even if the containers of the waste did corrode... "and we expect them to corrode", he said.

The idea of the containers is to take the waste safely down to the bottom, 2½ miles down. "The waste will be at such a depth that if the containers do leak and corrode away then, and we expect that they will, then the radioactivity will be so diluted that the effect of it will be minimal". He added, "The currents have been carefully calculated at the site using scale models and radioactivity will be carried away and diluted to very low concentrations."

The principal treaty that regulates the dumping of radioactive wastes into international waters is the 1972 "Convention on the Prevention of Marine Pollution by Dumping of Wastes and other matters", now known as the London Dumping Convention (LDC). However, it has not done anything really notable in reducing the amounts of waste dumped. The UK is a driving force behind attempts to change the LDC so that it would be possible not only to dump more, but also highly radioactive wastes.

Britain's dumping activities encourage other countries to view the oceans likewise as a convenient dustbin. Japan has plans to dump a huge inventory of radioactive waste in the Pacific.

It is against this destructive background that activists from the environmental organisation Greenpeace Ltd. have been taking action. In early August, Greenpeace activists disrupted the dumping activities of the British ship *MV Gem*, where 6 volunteers chained themselves to offloading platforms for 76 hours (see front cover).

In late August they turned their attentions to the Dutch ship "Scheldeborg", where dumping was again disrupted. As we go to press, the Greenpeace ships "Sirius" and "Cederlea" are planning to hinder the dumping operations of two more Dutch ships, on contract to the Dutch Energy Research Centre.

Greenpeace have continually had the double threat of injunctions banning them from disrupting the dumping, and heavy fines to be imposed if they do. But they continue to try to stop the dumping.

Britain has no intention of halting its dumping operations. The nuclear

Government Waste Paper

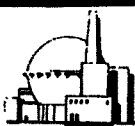
The Radioactive Waste Management Advisory Committee (RWMAC) published its third annual report in June. The government's decision to stop the test-drilling programme, came in for severe criticism.

"This inevitably puts off the day when a definite decision can be taken about a specific and permanent solution for the management of high level wastes within the UK, and creates a risk that a decision might be taken at some future date without the benefit of the full range of relevant data."

Work is going ahead on the design of a vitrification plant at Windscale for high level wastes. This is expected to be operational by 1987. Britain is still doing research into the feasibility of high level waste disposal on or under the sea bed, as part of a European programme.

Intermediate wastes were seen to pose the most immediate problem, because of the huge quantities involved. At present there are 35,000 m³ of untreated intermediate waste arising from nuclear weapons and power production. By the year 2000 this is expected to be 70,000 m³ excluding 30,000 m³ due to be dumped at sea. These figures include 10,000 m³ of foreign wastes, but do not include additional wastes arising from decommissioning reactors.

Sizewell



During their operational life, Pressurised Water Reactors produce 5 times as much intermediate level waste as Advanced Gas-Cooled Reactors for the same power output. The RWMAC stated, "We may need to give further consideration to the waste management implications of the proposed PWR at Sizewell".

The RWMAC recommended that a new body be set up to manage the issue of intermediate waste. In addition to the pre-



sent shallow burial facility at Drigg, Cumbria, it was suggested that more disposal sites were needed as a matter of urgency. Mention was made of reactors being decommissioned, and the waste that would arise. Large chunks of metal could be dumped at sea intact and unpackaged. There was a hint that present packaging (and classifying?) criteria "may require amendment".

With reference to assessing safety, in addition to scientific opinion the RWMAC stated that, "The general public's perceptions of what is acceptable will also be a major factor." This year they will be examining public perceptions of "risk", the "role of information" (sic) and "the closely related question of the evaluation of human life." (!)

The process of site selection for medium level waste disposal, "will need to be sensitive to social and political constraints."

Radioactive Waste Management - Government White Paper of 22nd July.

Having considered the RWMAC report, and the recommendations of the Flowers Report (Royal Commission of Environmental Pollution, Nuclear Power and the Environment, Sept. '76), the government have now set up an executive body to manage intermediate level waste. This body is the Nuclear Industry Radioactive Waste Executive (NIREX), and as from

next year it will also be responsible for the sea disposal for low level waste. The overall responsibility for all radioactive waste management, however, still lies with the Secretaries of State for Scotland, Wales and the Environment (strategy on waste management) and the Ministry of Agriculture, Food and Fisheries, and the Nuclear Installations Inspectorate (monitoring standards).

NIREX consists entirely of men in the nuclear industry, which is in direct conflict with the recommendations of the government's own Flowers Report, that this body should be independent of the vested interests in promoting nuclear power.

The first task of NIREX is to develop land disposal sites. The probable designs are an engineered trench at a depth of about 20-30 metres, and a modified mine or purpose-built cavity at greater depth. Specific proposals for a disposal site will need planning permission, with the provision for a public local inquiry.

Bland

The general text of the White Paper is nothing new... the same old bland assertions such as "the necessary work is in hand", and "the dangers can be eliminated by... known technology and sound common sense." (!) Also to cheer us up "As reprocessing is currently undertaken on a commercial scale only by the UK and France, British Nuclear Fuels Ltd. have been able to acquire valuable additional business by reprocessing spent fuel from other countries."

The reference made to informed public debate sounds hollow... especially since the White Paper itself cost me, a member of the public, £2.70 for a mere 20 pages. The government's attitude was epitomised rather well by Tom King, minister for Local Government and Environmental Services, in discussion in parliament of the White Paper...

"Commanding public acceptance is a problem. The campaign will be continuing."

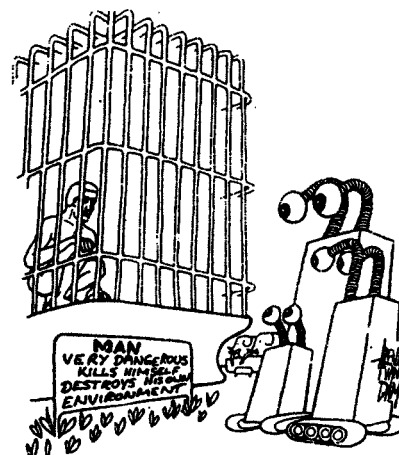
Mary Scott

industry want to replace the MV Gem with a ship that would be bigger (carrying capacity of over 400 tonnes), more modern, and be able to dump waste from inside the hull. This would counter the tactic of placing zodiacs under off-loading platforms or the occupying of the platforms.

Such an action as obtaining a different boat, and increasing the amount of radioactive waste to be dumped, will make Greenpeace all the more determined to stop the nuclear industry from destroying the oceans and the marine environment.

They are not alone in their actions. Protest is now international. Waste dumping at sea represents a glaring lack of wisdom on the part of the UK Atomic Energy Authority. It highlights

another unacceptable consequence of nuclear power, and the time has now come for the nuclear industry to stop their experiments and games surrounding the issue of waste dumping at sea.



For further information, campaigns, etc., contact:
GREENPEACE Ltd., 36 Graham St., London. N1 8LL.
Tel: 01-251-3020/3022.

Nuclear-Free Scotland

Conference

On Sunday 22nd August the Conference for a Nuclear Free Scotland was held in Edinburgh. It followed the last days of Peace March Scotland, acting as a focus for campaigners at grass roots level. It took the form of informal workshop sessions.

The Conference was sponsored by the main Scottish anti-nuclear groups. Its aim was to improve the cohesiveness and solidarity of the movement towards a Nuclear Free Scotland by the sharing of skills and information.

The Conference was a success, coming at the end of Peace March which created a marvellous atmosphere throughout the day, despite long queues for food and refreshments. Everything ran smoothly, not least due to the patience of all the participants and the hard work of the organisers and workshop convenors. Participating groups included the Campaign for Nuclear Disarmament, SCRAM, Friends of the Earth, European Nuclear Disarmament, Parents for Survival, Medical Campaign Against Nuclear Weapons, Conservation Society, Highlands Anti Nuclear Group, Scientists Against Nuclear Arms, Students Against Nuclear Energy, Labour Party, Scottish National Party and others!

In the afternoon we came together to share ideas coming from the discussions and amazingly overran by only 2 minutes! The original 14 workshops were reorganised into 9: Civil Defence, Nuclear Free Zone Strategies, The Nuclear Chain, Civil Liberties, Mediawatch, Socially Useful Production, Nuclear Numbers Game, and 2 Non-Violent Direct Action Training sessions.

Despite the great variety of groups represented and the tiring day, many interesting ideas were put forward. These included the announcement by Terrassawa from the Buddhist monks at Milton Keynes of their desire to build a Peace Pagoda in the West of Scotland. Anyone with ideas of sites or offers of help should write to them at The Peace Pagoda, Newlands Farm, Willen Lake, Milton Keynes. Tel. 0908-606869.

SCRAM is producing a full report on the Conference, available from SCRAM price 50p (inc. p&p).

Nuclear-Free Councillors

Since the Conservative Group took over the administration of Lothian Regional Council in May '82, local groups have been putting a lot of effort into persistent lobbying. And they have seen some results.

The balance of power in the council is actually held by the cross benchers. The Tories and the Labour Group each hold 22 seats. The five cross benchers, 1 Scottish National Party, 1 "Independent" Tory, and 3 SDP/Liberal Alliance, do not vote in one block, except perhaps the alliance, and are therefore individually

approachable.

On nuclear issues they vary immensely. The SNP as a party are anti-nuclear, and our SNP councillor is actively so. The others however, don't seem to have any policy and judge every issue individually and "according to its merit".

This is where the subtle powers of persuasion come in. The three issues which have been fought most recently were about participation in the civil defence exercise, "Operation Hard Rock", council support for Peace March Scotland, and Lothian as a nuclear free zone. In all three instances the Tories were trying to reverse previous council decisions.



Photo: Alan Chow

By trial and error we have found that sending a delegation to the full council meeting is useful in getting publicity, getting our opinions aired, and showing how much people care about these issues that politicians discuss.

However, policy is decided by voting. So the Labour Group were encouraged to make sure that every Labour councillor was there for the important vote.

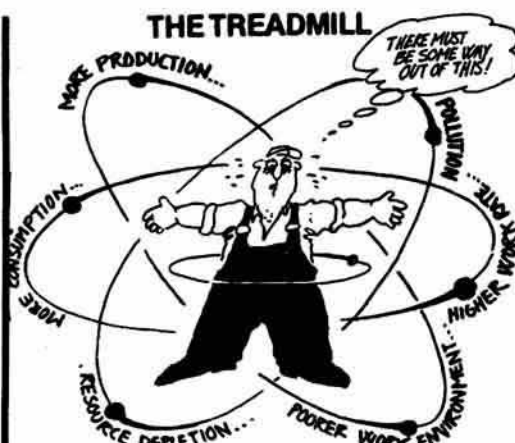
It is at the final vote that the background talks you have with the wavering cross benchers count. It has even been found that independent Tories can feel that peace would be a good thing, and use their vote accordingly.

So though we lost the vote on Hard Rock in May (it was a tied vote and the Tory Convenor gave his casting vote), we won the other two, even when five Labour councillors were on holiday on one occasion.

The two main points are; keep in good contact with your sympathetic councillors so you both know what the other one wants and is doing. And find someone who does not mind lobbying, and has the right approach for the right people.

So thanks to the hard work of lots of local groups and councillors, Lothian retains its Nuclear Free Zone status.

THE TREADMILL



Jobs from Warmth

- Insulate the homes of those receiving supplementary fuel allowances.
- Spend more on energy conservation in public sector buildings.
- Increase grants and tax allowances to boost energy conservation.
- Change the balance of public spending from more power stations to more energy conservation.
- Make the energy supply industries also promote energy efficiency.
- Establish an independent nation Energy Conservation Agency.

These are just some of the recommendations from "Energy Conservation in Buildings", the fifth report of the Select Committee on Energy. The all-party group of MPs criticised the present government's policies on energy — which I would loosely describe as "1. Make people pay more for energy; and they will then use less. 2. Order British Gas to increase prices, and cream off the profits to bail out the Treasury".

Their report notes that nearly half of the UK's delivered energy is used in buildings. The Building Research Establishment estimate that between 30% and 45% of this could be saved. A strong energy conservation policy would, they say, help to ensure the security of future energy supplies.

France spends four times, Germany six times and Holland ten times as much as Britain on energy conservation. In stark contrast to these figures the UK conservation budget was cut in real terms by 20% in this past year.

The Committee argues for using an energy conservation programme to create jobs giving:

- A large, long term employment potential;
- A widespread of social, economic and employment benefits because schemes could be launched in any location;
- Immediate employment and using a wide range of skills.

It is a strongly worded and forthright report. At its launching Ian Lloyd, the MP who chairs the Select Committee on Energy stated:

"Energy conservation requires increased resources, and increases status...the climate of opinion must be changed."

The government is now required to formally respond to the report. So write to your MP. Ask him or her how they will help to promote the findings of the report and force through the changes required to fully exploit Energy Conservation.

David Somervell

A handy briefing on the report is available free from the Association for the Conservation of Energy, 39a Gloucester Place, London W1 (01-487 5544). **Energy Conservation in Buildings Vol. 1: Report (HC401-I)** and **Vol. II: Appendices** — evidence submitted (HC401-II) published by HMSO and available from SCRAM Mail Order for £4.35 + 25p and £9.25 + 70p.



From Folly to Fiasco

People ask SCRAM — what is happening about Torness? So we are publishing a pamphlet to tell the story, to look at the issues it raises, and to see where we go from here. [From Folly to Fiasco, available soon from SCRAM. See next issue]. The following article looks at one aspect of the case: how the South of Scotland Electricity Board's story changed over the intervening years.

"The wisdom of a nuclear generating policy was seriously questioned by objectors at the Inquiry, but this is a matter of national policy and is not one on which recommendations can be made". So said Mr. Alexander Bell, in charge of 1974's Public Inquiry into whether the SSEB should be allowed to build a nuclear power station at Torness in East Lothian.

These few words tell it all. If you want to object to nuclear power, you can get a hearing. But don't expect the powers that be to pay any attention to what you say. And even if you prove to be right, don't expect things to change. It happened at Torness. It happened at Windscale. It is happening again at Sizewell — to complete our set of three wise monkeys. They may hear evil of the nuclear industry, but they see no evil in it, and they certainly speak no evil of it.

Let us look at the SSEB's story at the Public Inquiry in 1974, which took all of nine days to decide that they could spend fifteen hundred million pounds in today's money. They said that the station was needed. They said it would be cheap. They said it would help Scotland prosper. Let us see how things have turned out.

No Need

The SSEB had too many power stations even then. To invent the need for another one they had to imagine that the South of Scotland's appetite for electricity would double every 12 years. In the eight years since it has hardly risen by one fifth.

Cheap! Cheap!

They have yet to be stumped for an argument for nuclear power. If the Board couldn't show that Torness was needed, they could show that it was cheap. To pull this rabbit out of the hat they had to make out that their coal stations would get too

dear to run. How? Simple: Coal prices will rise. The Board chose to predict that they would outrun inflation by 2% a year, enough to add 50% to the cost of coal by the end of the century. The Board's number jugglers saw no reason to trammel their speculations for the next century. They declared that over the remaining fifteen years of Torness's active life, the price of coal would double again. It is hardly surprising that they were able to conclude that Torness was worth building after all.

Unlucky SSEB! The price of coal is steady. The National Coal Board has agreed to keep it in line with inflation. Its world price is falling.

Get it over with

By 1981, when they came to explain things to the Parliamentary Select Committee on Energy, the Board had found another argument. Granted that they were going to finish the project, it would be better to do so as quickly as possible. They did not even try to prove that it was worth finishing at all. Scientific advisor to the Committee, Dr. Norman Dombey, said of such assessments:

"There are no savings, the savings are all hypothetical. They are in the future depending on very odd assumptions like the price of oil and the price of coal after the year 2000, about which we know nothing. If you make mathematical models it is very easy to bamboozle the public, because any model is only as good as its assumptions, so in that way authorities with large computers can get out whatever numbers they wish."

Job Creation

Suppose the station is worthless. Suppose it has been a waste of money. It has still brought a lot of work to the area in the last ten years. Or has it? Here is what the local MP, John Home Robertson, was saying in February '81:

"The promise of jobs is the biggest let down of all. At the last count we still had 667 construction workers on the dole in East Lothian and Berwickshire, many of whom have been turned down for jobs at Torness. Meanwhile, for reasons best known to themselves, the contractors at

Torness are employing 718 workers from outside the Lothian and Borders region."

The Coal Sack

By February this year, he saw Torness as more of a threat to jobs than a promise of more:

"... there is in my constituency a 1200 MW coal burning power station, which burns virtually the whole output of two coal mines at Monktonhall and Bilston Glen... The Power station employs 600 people. The two collieries employ more than 4000 miners. It follows therefore, that Cockenzie power station accounts directly for the employment of nearly 5000 people... It will be hard to justify the commissioning of Torness when it has been completed unless the Government decide to close coal burning units. If that is the Government's intention, I tell them here and now that any such proposal would be a criminal waste of our human and natural resources and would be fiercely resisted."

Better late than never, Mr. Robertson.

Lost Chances

There was a small power station at Pinkston near the middle of Glasgow. Nearby there are a number of all-electric housing estates which desperately need some cheaper form of heating. It is a fine place to try a district heating scheme — piping hot water to the houses from a power station adapted to provide it as a by-product of making electricity. The SSEB costed rather an old fashioned version of the scheme. It turned out to be a little dearer than gas central heating — then the cheapest. So the SSEB turned it down. At the same time the Board were pressing the Government to raise the price of gas because they could not compete with it. The Government complied. The price of gas went up. Pinkston power station was knocked down in 1977.

What Now?

Nobody can see into the future. The SSEB did not set out to waste thousands of millions of pounds: first on oil stations now too dear to run regularly; then on nuclear stations they did not need, which are too late, too dear, and do not work properly. But there comes a time when naivety turns into incompetence and then into negligence. In carrying the folly of their nuclear policy so far as the fiasco of Torness, the SSEB have run this course to the full.



Sizewell ...

A stranger stumbling into Snape Maltings during one of the Preliminary Meetings of the Sizewell Inquiry might well conclude that cricket was the topic under discussion. There is talk of batting averages and fair play, but little sign that the fate of the British nuclear industry depends on what happens in this building over the next year. For here, tucked away in rural Suffolk, is where the Public Inquiry will take place into whether the Central Electricity Generating Board should be allowed to build a kind of nuclear power station it has neither built nor run before - a station driven by a Pressurised Water Reactor [PWR] - the kind that is responsible for half the nuclear power in the world, and the kind that came so near to catastrophe at Three Mile Island.

The person in charge of the Inquiry (called the Inspector), who will write the final Report to the Secretary of State for Energy, is Sir Frank Layfield - a paragon of the English liberal establishment. He represented the Town & Country Planning Association at the Windscale Inquiry - objecting to British Nuclear Fuel's proposal to build a plant to process the very kind of spent fuel that Sizewell 'B' would produce. His objections were in vain, but his competent but genteel handling of his case was enough to have his name inscribed on the roll of the great and the good, whom the establishment puts in charge of exercises of this kind.

That the Government is prepared to put him in charge of something so contentious as the Sizewell Inquiry is a measure of the confidence that the authorities have in the outcome. For make no mistake about it, the Inquiry will approve the CEGB's proposal. If the PWR is stopped it won't be on

account of the quasi-legal game being played at Snape.

For Sir Frank plays the game by the rules and he knows them well. He bends over backwards to be fair, but break them he will not. The range of his sympathy and the extent of his tolerance are shown by the three issues which have arisen so far:

- * whether public funds should meet the objectors' expenses;
- * how much information the CEGB should be compelled to disclose;
- * and what range of matters the Inquiry should cover.

Funding

It is six months since the Secretary of State for Energy promised to try to find some way of helping the objectors to pay for preparing their cases. He promised an early reply. There is still no answer. Sir Frank Layfield has been as sympathetic as possible. He has listened to the objectors' accounts of their problems. He has conveyed them

to the Secretary of State, Nigel Lawson, pressing him to reply. There is nothing more he can do. This matter has been kicked around between the Dept. of Energy, the CEGB, and the Inquiry for the last six months. Behind the scenes the CEGB have let it be known that they would be willing to find some money out of their Education and Information budget to fund the objectors, but they have not been allowed to do so.



Disclosure

How do we know to ask for a document? It might be known to exist, like

Objectors

"Sizewell Coordination" is the name of an informal forum of organisations who have met regularly since January 1982 in London to discuss the Sizewell B Public Inquiry.

Attendees include the Anti Nuclear Campaign, Council for the Protection of Rural England, Friends of the Earth, Campaign for Nuclear Disarmament, Town and Country Planning Association, Socialist Environment and Resources Association and the various regional alliances including SCRAM. Earlier meetings were attended by groups such as Greenpeace Ltd. who had already decided not to participate in the Public Inquiry, but see it as an important event around which to campaign.

The meetings have become a focus for those interested in presenting a case to the Inquiry. They have concentrated on the Inquiry procedure which is being formulated at the Preliminary Hearings. They are a way of ensuring that those not intending to appear formally are kept in touch with participants' plans and vice versa.

Some groups have changed their stand over the year. Green CND sees the Inquiry as an unparalleled opportunity to uncover information about the uses to which so-called "civil" plutonium is put, and has

reversed an early decision to boycott the Inquiry.

Embracing such wide-ranging political and environmental viewpoints, Sizewell Coordination can rarely speak with a single voice. Indeed it was not established for that reason. Its prime objective is simply to keep bodies in touch with one another, making it possible to gain a general picture of where they stand, both individually and with relation to each other.

One of the criticisms levelled at the objectors at the 1977 Windscale Inquiry was that they did not present a united front, so diminishing the strength of their case. Whether this is true I do not know, but one thing I have learnt over the last year is that a united front is not possible to achieve. Fortunately however, it is not a good idea! While we seek to avoid confusion and wholesale duplication, many topics call for different approaches and should be fully aired from different standpoints.

A straightforward example is the topic of "need". An economist will argue that it is folly to close down coal-fired stations in order to create a need for nuclear power; an alternative energy advocate may wish to show that any projected electricity supply shortfall can be met by non-nuclear sources.

There is advantage in maintaining the independence of these arguments although it is essential to be aware of other aspects

of the same topic.

For the best overall case to be put, Sizewell Coordination will ensure that topics are covered by those with the most relevant knowledge and resources, reducing needless repetition. It does not seem that this will be a problem, although there are still some grey areas. There may also be objectors who are working on their cases independently. We would be very interested to hear about them.

In the face of so many unknown factors, especially funding and appointment of Assessors some groups have yet to make a decision to participate or not in the Inquiry. FoE hope to cover engineering aspects of the "safety" case, CND and Green CND the links between end use of the plutonium which would be created in the reactor, CPRE and its Suffolk branch, need and local environmental factors respectively. A consortium of Local Authorities are commissioning research on the need and economics issues which may form the basis of a case. TCPA will probably participate although they have not taken a firm decision. The local Stop Sizewell B Association has committed itself to a case. Of the Trade Unions, the National Union of Miners and the Fire Brigades' Union seem set to appear.

Anyone wishing to know more about Sizewell Coordination should contact Roy Thompson at the East Anglian Alliance Against Nuclear Power (EAAANP), 2 St. Helen's Street, Ipswich. (0473 214308).

the annual Development Review, which even the Government have only had sight of in recent years. The Development Review for the past six years would make interesting reading. The snippets we have seen have revealed a far more determined commitment to nuclear power at any cost than the CEGB have been prepared to admit to in public.

Or the CEGB's Statement of Case might refer to a document which refers to other documents, and so on. The undigested material would be likely to reveal differences of view, for example on safety precautions, which the Statement of Case would be careful to conceal.

Scope

Apart from the urgent question of funding, what concerns the objectors most is what sort of case they will be allowed to make. Can they present evidence on the effects of uranium mining? on the likely spread of nuclear weapons? Sir Frank is unwilling to rule any topic out of order, but he is equally unwilling to say how much attention he will pay to the objectors evidence, a point he does not like to be pressed on. He has taken refuge behind a formula — evidence will be accepted in accordance with the practice of the Windscale Inquiry. There many spoke but few were heard.

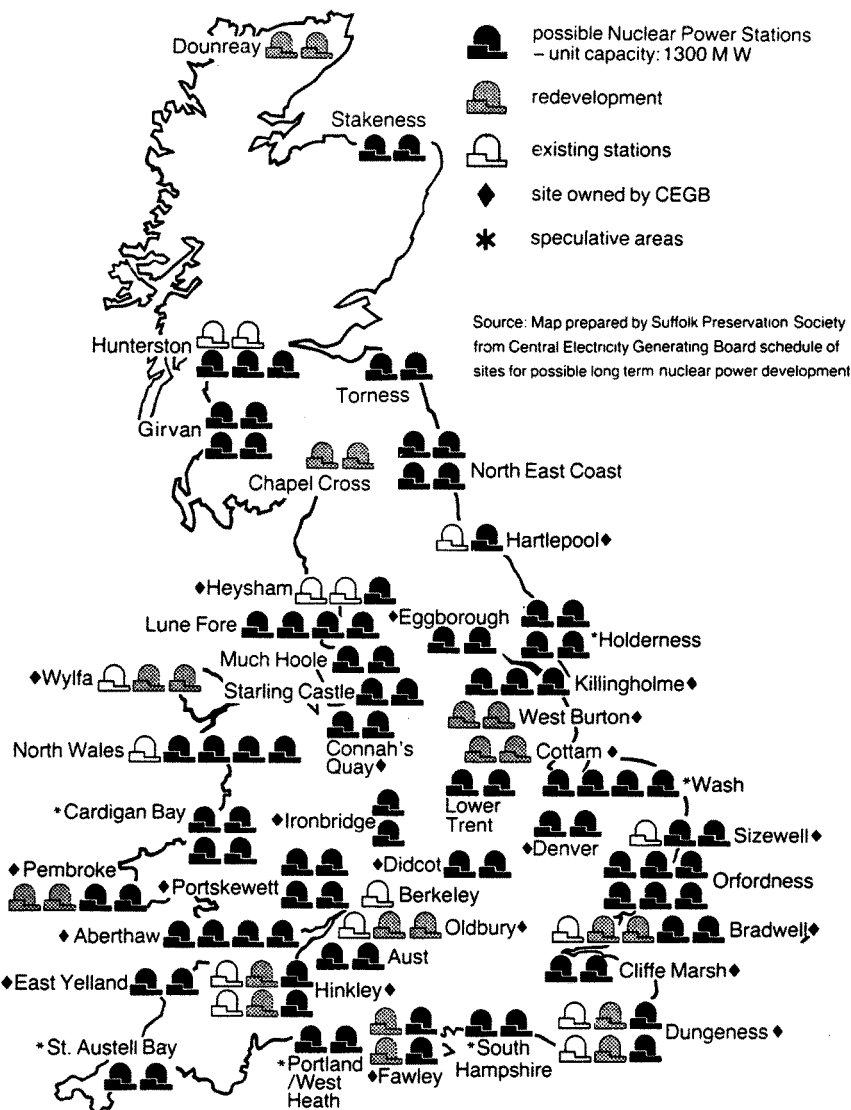
Batting Order

Next January the CEGB will start putting their case. It will take them about three months. Nobody will be allowed to question or probe what they are saying — only to ask for clarification. Then the objectors will have their say — one at a time. So the CEGB's case will be solid and connected, whereas objections to it will be in tatters. So much for fair play.

SCRAM's Role

Why take part? Few of the groups objecting to the CEGB's proposal believe that the Report of the Inquiry will do more than add a few token qualifications to the CEGB's plans. Yet they all feel compelled to take part out of a sense of public duty. Somebody has to put the case against the PWR. The edge of a whirlpool is a dangerous place to be. We may find ourselves sucked in and battered, and emerge exhausted. This is less likely to happen to SCRAM than to most other groups. Although we may offer evidence on the Scottish nuclear scene, our main roles are to support local efforts to stop the thing and to offer such help as we can to the groups putting up the bulk of the case. It is worth remembering that the one thing that has so far impressed Sir Frank Layfield is the number of people, some four thousand, who have written to him individually to express their opposition to the building of a Pressurised Water Reactor in Britain.

... Where Next?



The Suffolk Preservation Society have published a confidential Central Electric Generating Board list revealing dozens of nuclear power station sites under investigation in Britain (see map). The list of locations is marked "Highly Confidential" and appears to show the extent of the Electricity Board's plans for a nuclear power programme well into the next century.

The Central Electricity Generating Board (CEGB) has repeatedly said that it will not disclose power station sites until the local authorities concerned have first been informed. This policy reduces CEGB's own problems but creates a substantial one for potential objectors.

The Government implied in December 1979 that it hopes to build ten nuclear power stations in the next decade. So far only two sites have been named (Sizewell 'B' and Hinkley 'C') and there is a short list of four possible sites for a third station. No sites have, therefore, been announced for seven out of the ten intended stations, and there will be uncertainty about the eighth for some time to come.

A number of local authorities and many anti-nuclear and environmental groups, as well as individuals, have expressed concern at the lack of information, since the terms of reference for Sizewell Inquiry, and the extent to which issues such as 'need' and 'safety' will be deemed relevant at later inquiries is far from clear. The Inquiry Inspector has, for

example, felt compelled to advise Northumberland County Council to give evidence at Sizewell in order to be certain of protecting its position.

The SPS, the Suffolk Branch of the Council for the Protection of Rural England, is one of the objectors to the CEGB's proposal to build Sizewell 'B' nuclear power station. John Popham, its Director, said — "It is clear that there is hardly a stretch of coastline which has not been considered for a nuclear power station site."

The map shows only existing nuclear power station sites and the possible sites on the Board's "Highly Confidential" list, showing how many stations that the CEGB envisage might be built at each of them.

Other sites in which the Board is known to have an interest include Elstow (Beds.), Weybourne (Norfolk), Tidenham (Glos.), Landulph (Cornwall), Winfrith (Dorset), Herby (Dorset), Luxulyan (Cornwall), Hamstead, Edern (Gwynedd), Anglesey, Druridge Bay (Northumberland) and Wigsley (Notts.).

ALTERNATIVE ENERGY

Top of the CHPs

"District Heating schemes could cut fuel bills in homes and offices in eight British cities by at least 10%." Quelle surprise!, but so runs the long-awaited report from W.S. Atkins, a firm of engineering consultants, on the feasibility of Combined Heat and Power (CHP) and District Heating (DH) in the eight cities. The 18 month study was set up in the wake of the Marshall Report [1978].

There are no technical problems in any of the cities and problems of metering and charging customers could be overcome. Rather than naming any one city as suitable for a trial, it rates the cities in a 'top of the pops' order and stresses that progress should be carried forward in all of the cities.

Belfast comes first, in their rating, because of its lack of supplies of natural gas and its need for a new, coal-powered station. Glasgow and Edinburgh are next, as there is a good economic case there for CHP, though a plant might displace existing coal-fired power stations in the South of Scotland Electricity Board's area. They note that the area needs no new electricity generating capacity until the end of the century.

Atkins has put forward detailed plans for each city, showing sites for the DH and CHP stations, as well as routes for the heat mains.

The London boroughs would rely on two 275 MW (Thermal) turbine generators, as developed by the CEGB. These would be sited at Barking power station, together with boilers that would produce 335 MW of heat and no electricity. There would be three other heat-only stations; two in Southwark and one in Tower Hamlets. Manchester would have similar genera-

ting sets for CHP, at Agecroft power station.

They estimate that the development of big city heating schemes would take 21 years altogether. The heat load would be the first demand and this would be met by DH stations. The first CHP station would come on line in the seventh year.

Most importantly, the Atkins report stresses that all the cities studied are suitable for CHP and DH schemes and that progress should be stepped up now. But they say this 'will be subject to local authorities and electricity supply boards being committed to active participation'. The next stage involves working out financial and construction plans and should, as demanded by the District Heating Association, include all nine cities. The Labour Party's home programme backs this demand. After that the latter want to see CHP and DH schemes instigated in as many areas as proves feasible.

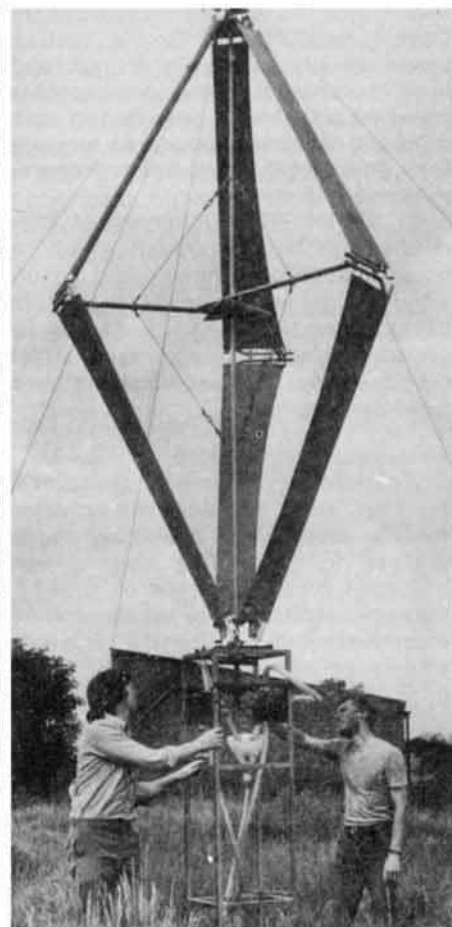
All of us campaigning for a sane energy strategy need to pressurise our local authorities and the government to get moving on CHP and DH and stop twiddling their thumbs and wasting their time and our money on nuclear power.

New Scientist 26.8.82.

Read; Warm Homes report; E B no. 29.

Contact; Ken Ternent, TUSIU (Trade Union Studies Information Unit), Southend, Fernwood Rd., Newcastle-on-Tyne. Tel. (0632)-816087.

Copies of the Atkins report should be available from your local council.



Sailwings

There is a great need in many parts of the world for a cheap source of mechanical power, particularly for pumping water for irrigation. Many areas are suitable for wind pumps but conventional designs are too expensive. Windmills for rural third world areas should be designed to supply sufficient power to irrigate a small plot (-1.5 ha) at low cost, and to make use of local materials and skills.

A vertical axis windmill has the advantages of needing a smaller support tower and of not requiring orientation into the wind. However present designs are generally not self-starting and so are difficult to adapt to pumping.

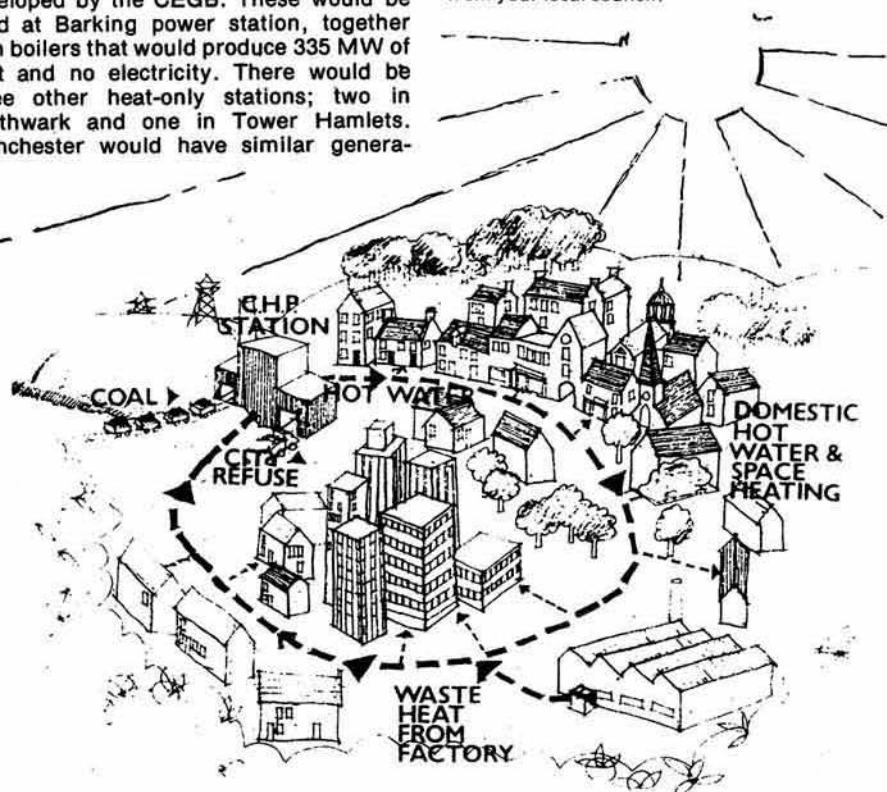
A research project at the University of Warwick has been investigating a vertical axis design which uses sailing aerofoils. Sailwings can provide self-starting and offer a cheap method of aerofoil construction.

Tests on the prototype have shown some encouraging results, and development work is continuing.

A Wet Dream

The North of Scotland Hydro Electricity Board will shortly announce that it is to go ahead with plans for six "run of the river" hydro-power schemes in the north west of Scotland. They will be the first hydro schemes to be undertaken by the board in over 20 years.

This is seen as only the first step and it is felt that the Board must be pressurised to make a more whole hearted commitment to hydro-power, which has long been neglected.



Dam Nukes

Electricité de France (EDF) is encountering stiff opposition to its plans to build several large pumped storage plants in the Alps, near Grenoble.

On July 26th, a hundred ecologists and climbers occupied the works site near the mountain village of Villars-d'Arene, where EDF intends to build the dam. Five days later dozens of farmers assembled to voice their complaints about the utility's plans.

The protesters are worried about the unsightly dams, reservoirs and power lines, about the effects of the construction projects on their way of life and about the way the large lakes at high altitude could change the local climate.

EDF wants the pumped storage plants to enable its network to adjust to varying loads, without disturbing its inflexible nuclear power stations.

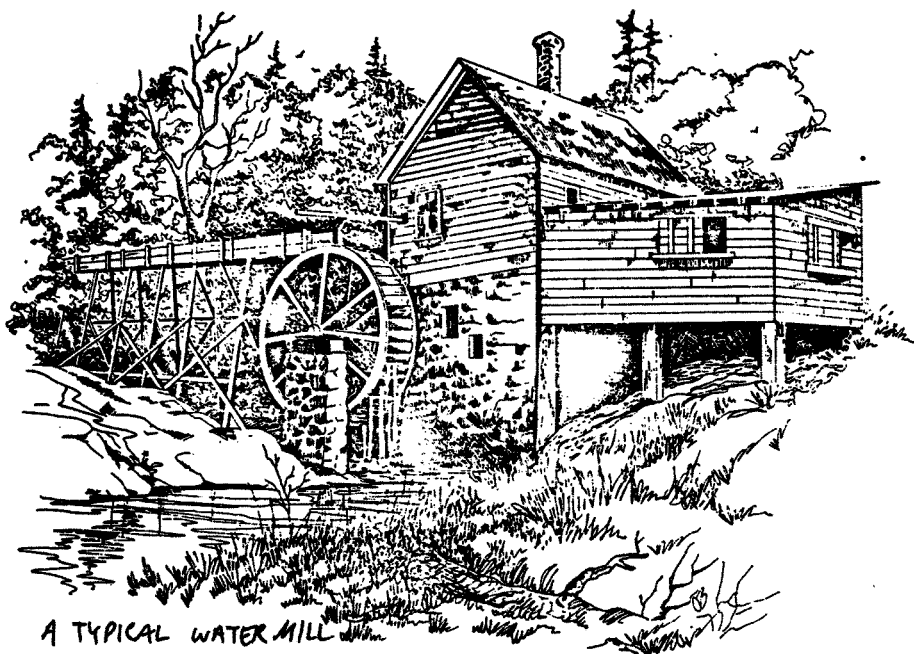
"Sun" Day

"Sun Day" was celebrated in style this year in Coventry. A newly formed organisation, Solar Coalition, laid on a coach tour of renewable and alternative technologies in the city. Tour participants included MP's, engineers, energy managers, architects and local builders.

The tour included a group of highly insulated council houses, heat pumps and a windpump at Warwick University, the CLAM wave energy device at Lanchester Polytechnic, and a solar heated school swimming pool.

The tour participants spoke highly of the novel approach which allowed a wide range of technologies to be visited in 3 hours. They were left with the reminder that Coventry desperately needs new products and a new economic base. If only a few of the technologies seen were to be developed locally, this could make a significant impact on unemployment levels.

Solar Coalition's aims are to educate the public on renewable energy and to promote its use. It consists of local members of Friends of the Earth, Conservation Society, Network for Alternative Technology and Technology Assessment, lay people and academics. Contact:- Stewart Boyle, 26 Plymouth Place, Leamington Spa, Warwickshire. Tel. 0926-312330.



A TYPICAL WATER MILL

Preston Mill

The anti-nuclear movement is critical of the National Trust for permitting construction of a civil-defence bunker on its land. But in East Lothian, not ten miles from Torness, the National Trust for Scotland runs a living example of alternative technology — a working water mill, well worth a family or school visit, which gives the feeling of travelling in time. It may be the future or the past, but it does not seem to be now.

The official guide book says "water mills were known to the Greeks two thousand years ago... and by the 3rd century A.D. they had reached Ireland. Two poems, one Greek, one Irish, make the same point about the arrival of the water mill; it lightened the work of women whose duty it normally was to grind the corn". Yet the hand quern remained in use in the Western Isles until this century.

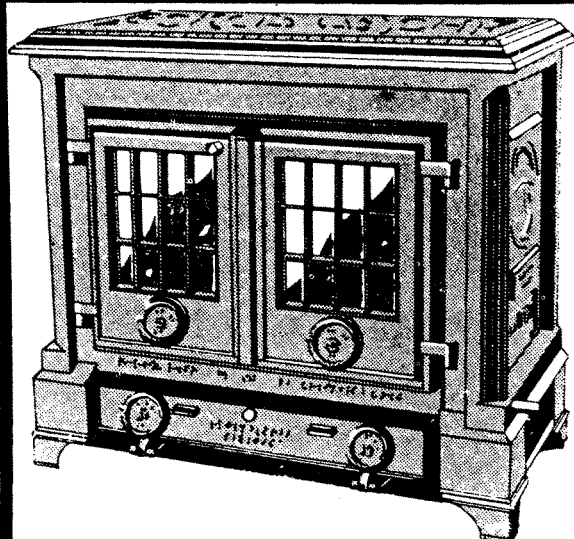
Preston Mill consists of a picturesque

15th century grain drying kiln, a great iron water wheel cast in 1760, and mill buildings which were improved by industrial espionage of Dutch technology.

The grain went up 3 times in tiny elevator buckets which entrance the visitor by their belt driven procession around the building. When the water is low the process is slow. After rain it speeds up and the noise increases. Three power take offs drive the milling stones, elevator pulleys, fans and bruising shaft. Four quantities of milled oats, plus animal feed, could be produced in the days when tenant farmers were compelled by their lease to use and maintain their local mill. Gravity fed the products into sacks, and ducks still swim in the millpond.

If you are interested in water power as an alternative, this is a pleasant place to do research.

Linda Hendry



FROM THE WORLD FAMOUS COALBROOKDALE IRON FOUNDRY FIRST ESTABLISHED BY ABRAHAM DARBY IN 1709 HAS NOW COME:

THE DARBY

MULTI-FUEL STOVE

FOREST FIRE

50 ST MARYS ST. EDINBURGH. 031-556-9812.
THE BEST OF SAFE AND RELIABLE TECHNOLOGY

Sitting Ducks

Target North West — Ian Welsh, Steve Wright. Manchester Free Press. 35p (+30p).

"The political decision to use nuclear weapons has already been made. They await only the opportunity.

They say that the polar bear, hungry or not, kills any animal it comes across without malice, without mercy. It is plain from this book that nuclear war will turn the institutions of this country into such a beast, designed to survive in a different kind of desert. The organs of the state will be far more concerned to impose control on anything that remains of society than to aid its recovery.

The authors found some people in Civil Defence trying to do a decent job: to make such preparations as they can, however inadequate, for dealing with events almost too frightful to contemplate. Yet the book exposes an apparatus of government permeated with a degree of suspicion amounting to paranoia. The extent of official distrust of the people — you and me, whom policy is ostensibly designed to protect, has to be seen to be believed.

If Britain's nuclear forces are merely deterrent, if NATO will never attack, why so much stress on the dangers of subversion, which on this evidence play so large a part in official thinking? I abhor the thought that the heart will be torn from the cities of Russia because the clapped out band of loonies who run the place happen to let loose on Britain the frightful powers of destruction at their command. But if they do so, I will be in no position to deny the British state its fruitless revenge. I will be dead. And this piece of paper, if it is not blown to vapour, will be flapping about some arid heap of rubble.

The authors are to be congratulated for conveying so simply and really the frightful effects of nuclear war. Studying the prospects for one region of the country, they have made what lies in store for the rest of us equally plain.

If I have a criticism, it is that the alternative measures they suggest stand about as much chance as using a piece of string for a tow-rope. They need a book to themselves. I hope the authors of this one get around to writing it.

Colin Hastie



The Socially Useful Show. £2 inc. from CAITS, N.E.L.P., Longbridge Road, Dagenham, Essex. (01 590 7722).

Nuclear Civil Defence Exhibition. £15 plus £2 p&p from Spark Communications, 74 Calthes Road, London, SW2. (01 673 7901).

CND Hard Luck Exhibition. £3 inc. from CND Shop, 227 Seven Sisters Road, London N4. (01 Broadsheds for 10, £5 for 100 from CND).

All the **SCRAM Exhibitions** now cost £5 inc. p&p.

New Exhibitions

Exhibitions are a useful way of spreading a campaign's ideas. They can be set up in Libraries, shopping centres or at the back of public meetings. But there is an art in making them — too many words are boring — too few, mere sloganeering.

Those made by local groups are often inspired collages of images, newscuttings and hard information. These are one-offs and rarely travel. It is when an exhibition has to be reproduced for distribution that the real headaches start...

SCRAM has had access to a large format copier. So ours have been A2 size (about 2' x 1'16") using simple text and bold graphics in black on white. We have to date sold over 100 copies of the three we have made: **Nuclear Questions, Nuclear Power = Nuclear Weapons?**, and **Conservation, Coal and CHP - the real alternatives to nuclear power, NOW.**

Our new Smiling Sun shop in Forth Street has room enough to hang exhibitions along with the extensive stock of anti-nuclear, safe energy and disarmament books, badges, mags etc. During the Festival last month we displayed **The Socially Useful Show**. This exhibition is published by the Centre for Alternative Industrial and Technological Systems (CAITS), the offshoot of the Lucas Aerospace Shop Stewards Combine Committee.

The ten small format (A3) posters explain how industries now making weapons of war could be 'converted' to provide for the real needs of society while maintaining employment.

This idea of conversion is vital to our campaigns. We have to be able to show workers and others that by adopting non-nuclear energy and defence policies they will benefit as well as those in need. This low cost display helps do just that and will be useful for starting discussions in your local group or trade union branch.

On an entirely different level is a really impressive full colour production by a London-based group called Spark. Their **Nuclear Civil Defence Exhibition** pulls no punches. There are six large, 2' x 3' panels printed on card. Strong visual images are juxtaposed with official statements and descriptions of the effect of nuclear weapons.

SCRAM will show this exhibition until 16th October as part of the Lothian Hard Luck activities. But the CND Hard Luck campaign, to show up Civil Defence for the fraud it is, continues into the autumn. You should consider putting this excellent exhibition at your local Town Hall or link it with a public meeting on Civil Defence.

CND have also published their own Hard Luck exhibition and this comes with 5 copies of a special explanatory broadsheet.

David Somervell

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

Mail Order



Real Reels

The Atomic Cafe; Film by Kevin Rafferty, Jayne Loader and Pierce Rafferty. USA 1982.

This film is a powerful anti-nuclear documentary, made from the very propaganda produced in the 40's and 50's by the US military and defence authorities. The original films were produced and shown during the Cold War, in an attempt to make the atomic bomb seen acceptable and necessary.

The film manages to make the audience laugh at the naiveté of the clips, instructing kids to save themselves by ducking under their desks when the bomb drops.

However, film of interviews with the crew of the plane which bombed Hiroshima, reveal the horrifying success of war propaganda.

I was amazed at the extraordinary footage showing islanders on the Bikini Atoll, being told that they will be happy in the future, because the US bombs, blowing their homes apart, are part of "God's" plan. And the American G.I.'s being told that their participation in the nuclear test is for the good of mankind!

Without any narration, the film makes you think about the kind of propaganda which is operating on us now. It also explains why so many people, who lived through the Cold War, see nuclear weapons as deterrents and a nuclear war as survivable.

The shots of Hiroshima and bomb tests, are not quite as unbearable as I expected them to be. Perhaps because the film sets them so clearly against the propaganda.

I saw the film at the Edinburgh Film Festival, but I hope it gets the wide distribution that it deserves. Look out for it!

Deirdre Armstrong

Summing Up

Nuclear Power: The Real Costs — Colin Sweet. ANC 1981. £1 (+30p).

One and one are two. Two and two are four. So how can the industry make out that nuclear power is cheap? Most of its critics contend that it has never been worth the money, and some of them believe with the author that it is a stone in the belly of the nation, so heavy that our economy has to fight to stay afloat.

If you want to know the answer, read this book. Not only will it tell you where the money goes and how it is hidden, it will also explain who is doing the hiding and why they have been able to get away with it for so long. Part of the story he tells, he discovered by his own efforts. He tells it well.

A note for number addicts: The author contents himself with explaining the what, the why and the how much. I would have liked a bit more on the how of his calculations. For their basis you will have to go to the references.

Colin Hastie



The Long Walk

On August 21st, several thousand people joined Peace March Scotland '82 for its last 6 miles into Edinburgh for the closing rally. Since leaving Inverness on July 23rd, the marchers had passed through many Scottish towns and cities spreading their message of peace, and publicising their call for a Nuclear Weapons Free Scotland. Marion Laidlaw joined the march for its last week. Here she gives her impressions.

Much has been said about the aims of PMS82, but little about the actual march itself. This I feel is a great pity because PMS82 was a unique experience which deeply touched all who took part. My only regret is that I joined the march at Glasgow on August 15th — I wish I had come all the way.

The main core of the march at this point consisted of some 70 people of diverse nationality and widely ranging age. There were marchers from England, Wales, Ireland, France, Spain, Germany, Sweden, Canada, and 6 Buddhist monks from Tibet.

Youngest present was little Suva who celebrated his 1st birthday, and 1st steps on the march, and was pulled all the way from Inverness in an ingenious contraption somewhat akin to a rickshaw. I'm sure no one would forgive me if I missed this opportunity to mention our second youngest marcher, 4 year old Lucy. Lucy organised her admiring entourage with great efficiency and was never without a volunteer to push her pushchair or to play games with her.

Oldest was 62 year old Maggie who also came the whole way. Maggie possessed tireless enthusiasm and an ability to laugh at every problem. At every stop she was there with her tin of Fullers Earth Powder and bag of unwashed sheep's wool treating endless rows of blistered feet!

The march's size made it possible for us to get to know each other well, and the friendly spirit and togetherness of the marchers seemed to quickly transmit itself to bystanders. Never have I seen such an overwhelmingly friendly public response to a march! Everywhere people

came to their windows to wave and smile, car drivers blew their horns and waved, and children in school playgrounds lined the fences waving, some making peace signs and cheering.

Relations with the police were excellent. One day, as a group of police took their leave of the march, they lined up by the roadside and applauded as we passed. On another occasion they provided food for everyone's lunch, with enough left over for supper.

A passing motorist, cheered by the sight of waving marchers, drove to the next town, bought an enormous crate of assorted fruit, then turned back to catch up with the march and distribute it. Arriving in Bathgate after three hours march through pouring rain, a woman, seeing that little Suva and his mother were soaking wet, took them into her home, dried them off and gave them hot food.

We were all amused to see children's reaction to the Buddhist monks. In Shotts, the march rapidly picked up more than 100 young children who came with us to our rally. They were fascinated by the shaven



headed monks who wore long white and saffron robes. They stood around them in a circle almost fearfully — they were under the impression that the monks were of "Kung Fu" origin! Once this delusion was put right they lost their fear and queued up to shake hands and bow in greeting.

All of us greatly admired the 6 monks

whom I believe are part of an order devoted exclusively to the furtherance of peace. They had joined the march in Glasgow, coming from Faslane Peace Camp. Before that they had taken part in a continental peace march. Any feelings of strangeness swiftly vanished as we realised just how friendly and open they were. They shared our food and accommodation, and soon we all learned how to bow in greeting or thanks. Although their English was not good, they shared in many jokes and conversations; and taught us one of their beautiful Japanese songs. Throughout the duration of the march they beat their drums, chanted and sang.

The marchers ranged from hardened CND campaigners to those without previous experience who had joined on the spur of the moment, impressed by the spirit of the march. PMS82 was non-political, non-elitist and non-aggressive. This is surely a pointer for the future progress of the Peace movement.

Many more people and incidents deserve a mention here, but unfortunately I do not have the space. PMS82 was a great success, thanks to the hard work of many individuals and organisations.

Last but definitely not least, thanks to all the peace marchers, all of whom contributed to the success of PMS82. There is a rumour in the air that next Spring will see a Peace March from Faslane to Greenham Common, some 400 miles. I hope to see all this year's PM veterans plus a lot of new faces when I set off from Faslane.

Classified

Large flat/house wanted for communal house, central Edinburgh. Short-term lease considered. Please phone Martin, 031 667 2034.

Re-fillable Aerosol Cans - non polluting spray for paint, thin oils etc. Includes hand pump for pressurising air. £1 each plus 25p p&p for any number.

Harrow Friends of the Earth, 7 Parkthorne Drive, Harrow, Middx.

Gas Masks. Get yours before the holocaust. £2 incl. postage. SANE, 11 Forth St., Edinburgh.

"Energy Conservation - design for efficiency" is the title of a special exhibition at the Design Centre, Haymarket, London from 20 Oct. - 27 Nov. It's on in Swansea from 9 Dec. to 15 Jan. and at the Scottish Design Centre, 72 St. Vincent Street, Glasgow from 3 Feb. - 5 March '82. It will cover all the renewable energies and show how energy can be saved and wastage reduced in factory, office and home.

SIZEWELL/ALTERNATIVE EXHIBITION

Members of Ipswich FoE and the East Anglian Alliance Against Nuclear Power have produced a pair of exhibitions to counter the CEBG propaganda about Sizewell. The first has 18 30" x 20" panels outlining the latest developments on **Alternative Energy**. It describes how renewable energy sources, together with energy conservation make nuclear power unnecessary.

The second, of 5 panels, focusses on the proposed PWR at **Sizewell**... why you should oppose it and the realistic alternatives. They complement each other and are available on loan or for sale.

For details please contact Robin Sadler, Bealings Barn, Grundisburgh Road, Great Bealings, Woodbridge, Suffolk. Phone Grund. 638 (H) or 01 580 6690 (ofc.).



Little Black Rabbit decided to take a holiday in England recently to try and find out why the long promised AGR at Heysham had not come on line yet. The managers at the power station would not talk to her but did say that "certain modifications had become necessary as a result of the extensive tests conducted before the reactor went into commercial operation".

Workers on the site were a little more forthcoming and talked of extensive stripping back of insulation work. Workers who had done the original lagging did not seem surprised by this. They recalled how the appalling working conditions in the core had led them to disregard the instructions designed to ensure clinical cleanliness. Discarding gloves, leaving lost tools behind in the core instead of reporting them missing and even defecating in the corner rather than crawling 300 yards to a proper toilet!

One remembered a particular tool with some affection. "Harry the hammer", a 4lb lump hammer to be precise, who would have "sorted things out" when they tried to start up! Little Black Rabbit began to understand why there was such a delay and chuckled to herself that if things were the same at Torness then perhaps it would never work anyway.

EVENTS

- Oct 1-8: Youth CND national week of action. Contact your local YCND group.
- Oct 4: Trial of eight Edinburgh people charged with breach of peace for leafletting and picketing against the Falklands War at Edinburgh District Court. Contact 031 557 4283.
- Oct 24-30: SCND Week of Action Against Trident. Contact your local CND group.
- Oct 30: Stop Trident Day. Contact your local CND group and SCND.
- Oct 24: Babies Against the Bomb; sponsored pushchair walk from Hyde Pk., 1 p.m. Arrive in Jubilee Gardens, for rally, 3.30 p.m. Contact 01 267 0474.
- Oct 24: Unilateral Disarmament Day. Contact War Resisters International 01 703 7189.
- Oct 26-28: Issues in the Sizewell 'B' Inquiry; International conference. At Polytechnic of the South Bank, London. See enclosed leaflet.
- Nov 6: 'No more nuclear power'; ANC National Rally and Conference. 11 a.m. - 4 p.m. Central Hall, Westminster. Speakers and workshops. Contact ANC; 0742 754691.
- Nov 27&28: Secret Scotland; State research and how to go about it. At Riddles Court, Lawnmarket, Edinburgh. Organised by TAGS (Technical Authors Group) 100 Findhorn Pl., Edinburgh.
- Nov 26, 27, 28: CND Annual Conference; Sheffield City Hall.

NO WAR FOR BRITAIN
STOP STRIKEWELL!
NO MORE NUCLEAR POWER!
WORKSHOPS ON THE CAMPAIGN!

NATIONAL RALLY & CONFERENCE
SATURDAY 6 NOVEMBER 11am to 4pm
CENTRAL HALL WESTMINSTER LONDON

FOR MORE INFORMATION CONTACT: THE ANTI NUCLEAR CAMPAIGN, 111 FLEET STREET, LONDON EC4A 3DF. TEL: 071 253 8888. FAX: 071 253 8889. E-MAIL: ANC@NUKEFREE.CO.UK

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Affiliation. Groups and organisations are invited to send for an Affiliation form ☐.

Digitized 2017



Photo: Berni Graham

SCRAM is now happily settled into new premises which we are sharing with some other groups including Students Against Nuclear Energy, Scottish Student CND, Edinburgh Youth CND and Scottish Youth CND. * Work on decorating our new offices is continuing with unabated energy. Our workers have

been enthused with boundless zeal as can be clearly seen on their eager faces (pictures above). As always SCRAM is looking for people to help with the office and shop on a regular or irregular basis. Just call in to 11 Forth Street, Edinburgh and you will be sure of a warm welcome! * AND NO NUKES MUSIC.