

The Anti Nuclear & Safe Energy Journal

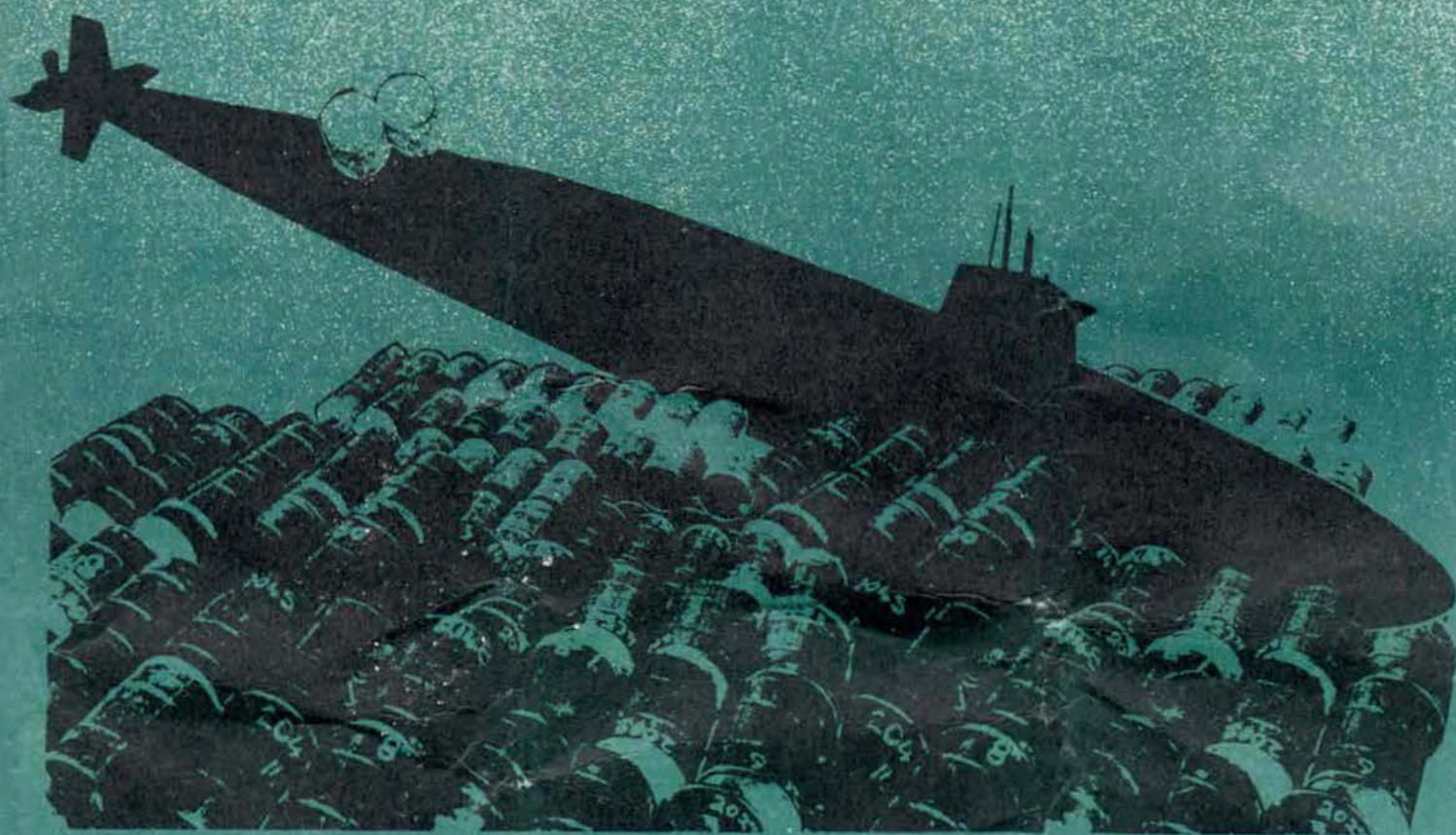
SCRAM

Nº42



June/July '84

50p



US Sub rams illicit waste dump

p3

Hartlepool: All Gone Rong

12

Appropriate Energy Strategies

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10

US sub rams waste dump	3,4
News	5-9
incl: Nuclear Convoy	9
Appropriate Energy Strategies	10-11
Hartlepool: All Gone Rong	12
Argentina: after the Belgrano	13
Appropriate Technology	14-16
incl: CHP: Govt. cops out	15
it aint what you do...	16
Torness: the folly continues	17
Reviews	18-19
Little Black Rabbit, Diary	20

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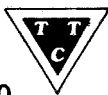
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Welcome to the new-look SCRAM Journal. It will be noticed that this issue is twenty pages long, and the price has gone up to 50p [subscription price £7] due to increased production costs [the first increase since February '82]. We hope that this format will become a permanent feature and we aim to go monthly in the new year, if demand warrants it [and we can manage the organisation].

Nuclear Power: the end in sight, the "working conference for all those concerned about nuclear power" was held in London on 12/13th May. About 150 activists were present and, although no strong policy statements were issued, the experience seems to have been very worthwhile. Representatives from all over the country were able to meet, talk and exchange ideas and information about campaigns in their own area. We hope to cover the Conference in more detail next issue.

There was a consensus that there is a need for a greater information flair to keep people informed of the issues and the news in the nuclear field. To this end SCRAM intends to expand the Journal to be a truly national (& international) magazine concentrating on energy issues (as well as aspects of the disarmament campaign). However, to fully implement our ideas we require YOU. Can you send us contributions - articles, news, rumours, diary dates, photos etc. - to enable us to continue in this form? We also need help in distribution; if groups or individuals take extra copies and try to circulate them around their area - libraries, colleges, groups - then it will cut down our workload at this end, and leave us free to collate information and produce the magazine. Subscriptions remain our life blood; shop sales are great to spread the word but don't help to pay for production. We hope you can help!

So much for that, what about the content of this issue? We are starting a series of articles on UK nukes, with "nukes I have known" as a working title. We have held over a story on Dungeness B until the next issue; we still require about 850 words on each of the others, starting with the AGR's - Hinkley, Hunterston, Heysham (I & II). The catalogue of disasters in the Hartlepool story inside are mirrored at Dungeness B; we would like to show that the others are similarly cursed. Friends from the North West, the South West and West Scotland please get in touch on this matter. Magnox (and ultimately the other facilities) will follow in the fullness of time.

The miners strike continues. Coal stocks are high and the CEEB (& the SSEB) are trying their damnest to avoid coal-fired generation. According to Arthur Scargill nukes are missing essential maintenance work as the CEEB attempts to starve the miners out - expensive oil and nukes are being used now (with few exceptions). Electricity may increase in price because of the intransigence of the NCB and Electricity Boards. The Boards are playing a very dangerous game; if the miners stay out until Xmas, as Scargill threatens, how long will it be before some incident occurs at a nuke - Hartlepool came back on stream before it had been given a completely clean bill of health.

"Only a few years after Empire we are so blind to the mechanics of colonialism", so suggests Jeremy Adler in his review of Duncan Campbell's new book (see reviews). The lead story on the nuclear sub accident bears out this analysis. That the US are able to get away with polluting our coast and endangering the health of our people, and our Government covering up for them is a very sorry state of affairs. Is the UK independent deterrent really so? They are even trying to get us to buy one of their reactors which they can't sell abroad; they are treating us like some Third World Country!

Talking of Sizewell, the CEEB are now carrying out a study to ascertain the feasibility of an AGR at Sizewell if the PWR doesn't get the go-ahead. The US are reported to be investigating gas-cooled technology. As the Electrical Review perceptively mentioned in its editorial of 11th May: "In ten years time, Britain could be commissioning the last PWR ever built, and its nuclear industry would have lost its leadership in gas-cooled technology to the US and West Germany".

On the Appropriate Technology front Pete Roche has written an Energy Strategy for the future, along the lines of Chris Church's strategy on waste management in the last issue. This together with Martin Spence's new pamphlet (see reviews) gives a new direction to the campaign for a sane energy policy in this country. And, following the sweeping change in the control of local Government after the elections in May, there is a chance that CHP and energy conservation measures will receive a well-needed boost, especially considering the Government's reluctance to do anything meaningful on either front. Let's hope that the industry really is on the run, and it doesn't do something very silly in its death throws; let's hope that it gives in gracefully.

US sub rams Waste Dump

There have been conflicting reports recently as to the source of radioactive contamination in the paint on an American nuclear submarine at Holy Loch. Following information received, and a careful monitoring of the Press we have discovered that the Poseidon submarine USS Sam Rayburn has been in collision with nuclear waste barrels dumped in the North Atlantic.

The submarine, which carries 16 missiles, ran into the barrels at 6.15 a.m. on September 2nd last year about 175 miles south west of Lands End. When the nuclear powered vessel hit the barrels the captain noted abnormally high radioactivity and feared that the sub had been damaged. The boat waited on the seabed for three days until a support ship came out to check her.

US Navy divers were sent out from Plymouth to ascertain the fault. On their return it was heard that the submarine was not damaged but that some barrels lying around her were leaking. The submarine then presumably carried on with her voyage, because she did not turn up at the US Holy Loch base until mid-January.

US Navy spokespeople initially attempted to confuse the locals around Holy Loch when they became concerned at strange activities at the base. They claimed that people had "misinterpreted the routine offloading of a missile" and that the USS Andrew Jackson had not been in port at the time and there had not been a radioactive leak. This 'cover up' was irrelevant as the submarine involved in the incident was the Sam Rayburn, of the 35th Squadron (Holy Loch is the 14th Squadron base), she was an infrequent visitor (if she had ever been there before), and she had a unique feature - a catwalk around the conning tower - which made her unmistakable to the experienced local 'submarine watchers'.

Duncan Campbell discovered that an incident had occurred and the US Navy had to admit that the Sam Rayburn was indeed contaminated, although only slightly. He disclosed in an article in the New Statesman that everyone aboard the floating dry dock USS Los Alamos was issued with personal radiation monitoring badges the day after the sub was taken aboard. This was the weekend on the 25/26th February. What had happened to the sub between mid-January and the

end of February?

Local sources state that, when the sub first arrived she was accompanied by USS Vanguard, a very rare visitor indeed. The Vanguard, a white, converted tanker, is a spy ship and bristles with surveillance gear. Most of the crew of the Vanguard is civilian. Both the sub and the spy ship left Holy Loch around about 18th February, after remaining apart from the base since their first arrival.

On her return the sub was taken into dry dock, where the decontamination process began. During the time of her earlier visit the submarine was 'shunted' around the Loch only by Royal Navy tugs - themselves rare visitors to the US base. Only later, after the work was completed, were US tugs involved in moving her. Was the submarine so highly radioactive that US vessels, and personnel, could not approach her?

The US has stricter regulations for radiation exposure than we have in this country. In fact, during the period when Rayburn was in dock three US servicewomen in early pregnancy, who worked aboard the supply ship, were flown home after an appeal to a Senator. This is apparently routine for women in later pregnancy, but a Senate Appeal was required for these three women.

The work of the submarine took nearly a month to complete; she eventually left Holy Loch on the 20th April. During the decontamination process water was sprayed over the hull whilst the barnacles and paint were scraped off, to prevent radioactive dust being released to the atmosphere. 200-300 civilian workers were employed on the clean-up operation.

The National Press carried the story of the radioactive submarine on 2nd and 3rd April. They quoted US Navy spokespeople who claimed that the contamination was routine: "one of our routine surveys is to sample paint in locations on ships associated with operations involved in handling low-level nuclear radiation". However, they pointed out that the level of radioactivity was too low to be detected by a geiger counter, and that "if a person eats 10lb of this paint they would receive less radiation exposure than that received each year from natural sources of radioactivity in the body".

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Loading Waste drums prior to sea-dumping

Although unable to explain where the radioactivity had come from, the Navy admitted that slightly different procedures to normal were used when the sub was scraped and repainted.

The elected representatives for the area are not convinced. Peter Collier, the Chairperson of the local Sandbank Community Council "can't believe anything the Americans tell us" and accused the Navy of "bandying with words" when they explained that no spillage occurred in Holy Loch; the sub was radioactive when it sailed in from the Clyde. Strathclyde Regional Council believes it was "misinformed" by the Navy; at the end of February they told Robert Calderwood, the Region's Chief Executive, that there was no such incident. Councillor Ronald Young commented, after the admission that an incident had, in fact happened, "If the US Navy was now saying there had been an incident, however small, that raises the very basic question of the integrity of the relationship between the civil and military authorities in the area".

Labour MP for Carrick, Cumnock and Doon Valley, George Foulkes, a consistent opponent of Windscale and the military and 'civil' nuclear programmes, asked questions in the House of Commons but was blocked because of the 'defence' nature of his questions. He attempted to discover "the operational movements and activities of US submarines in British waters and what controls, if any, the Ministry of Defence have over them".

The Scottish Health Minister, John MacKay, tried to assure locals that nothing was wrong, and that the rumours were just gossip. Peter Collier regards the Minister's attitude as "very arrogant" particularly after the recent disclosures.

There are many worrying aspects of this incident. Did the Government know about the waste barrels, and if they did why didn't they make any official statement? If they didn't, why were they not told. According to the Plymouth-based *Sunday Independent*, an official at the Dept. of the Environment, which controls the dumping of waste, had "heard

Sources: Duncan Campbell, *New Statesman* [30.3.84] Rorie Smith, *Sunday Independent* [15.4.84] Glasgow Herald [2.4.84 and 3.4.84].

something about" the sub hitting the barrels. And an American Navy spokesperson they questioned admitted that the Sam Rayburn "could have been in the area at the time".

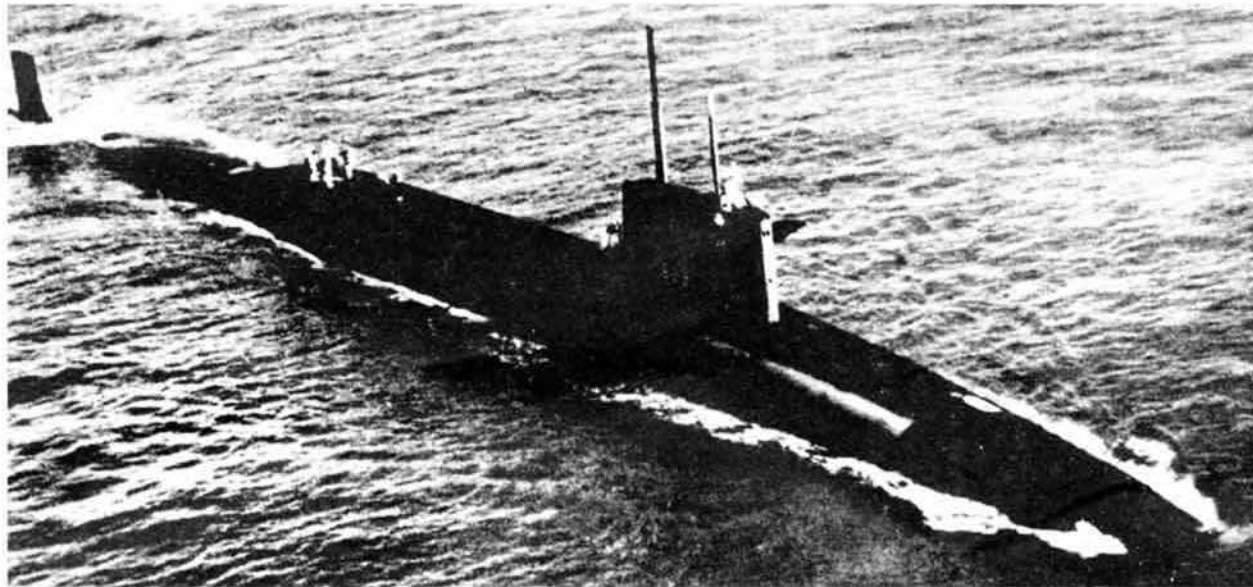
However, the UK low-level waste dump is 500 miles off Lands End; did the barrels drift over 300 miles towards Britain? If so all the Environment Department's assurances that the dump is "safe" seem to be worthless. If not, where did the barrels come from? We have discovered that the barrels may have actually been dumped at the point where the sub hit them. Sources indicate that sometimes the Fisher boats (the waste dumpers, eg. *Atlantic Fisher*) dumped their cargoes much closer in than the 500 mile dump zone.

Also, if the barrels contained only 'low-level' nuclear waste (the oft-mentioned hospital gloves etc.) is it conceivable that the radioactivity on the submarine would still be hazardous after over four months at sea? Reports from local people tell that the lead-based undercoat was so contaminated that it too had to be removed during the decontamination work at Holy Loch. Does this imply that the waste was not low-level at all?

Duncan Campbell points out that locals suspect that the US Navy has been dumping "highly radioactive resins" overboard from their submarines, and a report prepared last year by the US Fund for Constitutional Government confirms that, in at least two previous incidents, "the resin had been swept onto the submarine's hull, contaminating paint and marine debris". Is it possible that the barrels which the Sam Rayburn hit were another example of US disregard for Britain's sovereignty, or is it a coincidence that she hit barrels on the same trip as being contaminated by her own effluent?

Other questions remain also; why did the sub stay at sea for so long after the waste barrel incident; why did she not go straight into dry dock after entering Holy Loch; and why did she go out to sea again for a week before the decontamination process? The people of the local community, and Britain at large, deserve answers to these questions.

Steve Martin



DANIEL BOONE NUCLEAR-POWERED MISSILE SUBMARINE OF LAFAYETTE CLASS. similar to the USS Sam Rayburn.

Seven fishermen from the Faroe Islands were burnt and blinded by mustard gas that leaked from barrels brought up during a deep sea trawl. The leaky canisters came from World War II Axis stockpiles which were dumped under Russian supervision shortly after the war. German sailors who participated in the operation indicated that the specified dump sites were disregarded and barrels dumped

carelessly. The unfortunate fishermen were more than 50 miles from the designated dumping areas.

It appears that the barrels have contaminated local fish as in the 1950s there was a wave of mustard gas poisonings among East Germans who had consumed Baltic cod. The Danish government is concerned about reports of fish contamination, by the 50,000 tonnes of mustard gas disposed

of at the end of the war, and have set up a committee of investigation.

This story taken with the casual nature of sea dumping revealed when an illicit site was disturbed by the *USS Sam Rayburn* suggests that all seabed dumping should cease, sites should be checked and local fish monitored for contamination. This is not done at present, with very few fish being monitored by MAFF.



The other BAND - Bedfordshire Against Nuclear Dumping - was, like Billingham BAND, formed out of local disquiet at the announcement in Parliament in October '83 that nuclear waste was to be dumped in Bedfordshire. The site chosen here by NIREX for so-called low-level waste is owned by the CEGB and is less than half a mile from the village of Elstow - famous for its connections with John Bunyan. NIREX propose to dig shallow trenches and to cover the waste with concrete.

As the underlying soil is clay, NIREX assure us that the site would be perfectly safe, as the clay would not move. Local opinion however has not been impressed by these assurances; we remember dry summers when our lawns developed cracks inches across and several feet deep.

The first public meeting was held in November 1983. We hired a local hall with a capacity of 2000. We were pleased to welcome Jim Vaughn and Bernie Goodchild from Billingham BAND as guest speakers and we hoped we had not been too enthusiastic - would any one bother to come? Would the Public support us? We need not have worried, the hall was filled. Even better, no one wanted waste here; public opinion was with us.

The next meeting in Bedfordshire was organised by NIREX to assure us that the radioactive material was very low level. All the material would be coated with concrete and would be completely safe.

One local Councillor put the question "If concrete is so safe for containing radioactive material, how come half the concrete lamp posts in our village are falling to pieces?" NIREX were unable to answer them.

The meeting ended with the local MP, who was acting as Chair and who is just about the only person of any position in Bedfordshire not to oppose the dump, being jeered off the stage with a slow hand clap.

Since then, BAND has organised a vigil outside the proposed site. This was held on New Years Eve as the start of 1984. We are organising a petition of all electors in the North Bedfordshire constituency. We have picketed the NIREX information office in Bedford and are continuing to raise money through jumble sales and sponsored events.

Gorleben ist überall

The campaign to stop the dumping of nuclear waste at Gorleben and the construction of a nuclear reprocessing plant similar to Windscale at Dragahn has been resumed.

The success of the peace movement in West Germany has, as in Britain, drawn attention and energy away from the campaigns against nuclear power; last year saw hundreds of thousands on the streets in West Germany opposing the stationing of Pershing II and Cruise Missiles. In the meantime, "temporary" stores for nuclear waste at Gorleben have been completed and waste is due to start being transported to the dump in the next few months. Construction of the permanent dump continues, in spite of official reports which say that the salt formation in Gorleben is not suitable for permanent waste disposal. At Dragahn, about 10 miles from Gorleben, the construction of a reprocessing plant is due to begin. The authorisation procedure is already well advanced.

On March 24th, more than 10,000 people formed a 20 mile long human chain between Hitzacker and Clenze, symbolically cutting all the main roads into the Wendland region of Northern Germany - a

triangle surrounded on two sides by the border with East Germany. The Wendland is very sparsely populated and hence ideal for the nuclear industry's plans. The numbers present fell short of the anticipated 20,000 and the length of the chain had to be reduced. In spite of this, there is hope that an effective campaign can be continued.

Before dawn on the 30th April Police raided a Peace Camp near Gorleben and arrested 500 people; at dawn blockades were to be erected on all the main roads into the area. However, four thousand demonstrators were joined by local farmers and priests in the one-day blockade. For about 12 hours all the access roads to Gorleben and Dragahn were blocked with private cars, tractors, felled trees and burning hay. Some of the blockades were women-only actions.

Police were accused of smashing car windows, deflating tyres and driving away tractors parked by local farmers. They used water cannon and tear gas to clear the roads, but failed to stop the demonstrators from building new barricades. The blockade clearly showed the determination of the campaigners not to allow waste transporters into the area.

Nic Lampkin

Is "emplacement" the same as dumping? Why should we worry? Ask a lexicographer. This is more than just pedantry and holds the key to Britain's high level waste disposal plans. Plans exist for firing high level radioactive waste into the sea bed from specially designed ships. This avoids the ban on the sea dumping of high level waste.

The London Dumping Convention became the forum for this hair splitting, with America, Britain, France, the Netherlands, Japan and Switzerland supporting "emplacement", and Spain, Finland, Norway, Sweden and Denmark arguing that emplacement is covered by the 1973 convention on waste disposal. It may be coincidental that the "emplacement" lobby produce high level waste. In the absence of a consensus a working group has been assembled and the next meeting postponed for six months. It is unlikely that lexicographers will be involved.

Nature 308, 6, 1984
Guardian 21.2.84, 10.4.84.

Poisonous Pedantry



Continually NIREX have been asked three questions by BAND:

- 1) What are the other sites that NIREX have investigated;
- 2) Can you assure us that there will be no adverse effects on the local population as a result of the dumping;
- 3) Can you assure us that house and land values will not be affected by the dump.

At no time would NIREX give us positive answers.

All shades of political opinion are represented in BAND - we have Labour, Liberal, Conservative, Ecology and Communist Party representatives; trades unions are involved through the local Trades Council and the many ethnic groups in Bedford give us their support.

I believe we have a long hard fight ahead, but I believe that it is a fight that we must win and that it is a fight that we are going to win.

Pat Bramall

Superphenix Inquiry Appeal

Friends of the Earth Italy have organised an Appeal to the European Parliament for an Inquiry into the use of Fast Breeder Reactors, with particular reference to the Superphenix plant at Creys-Malville in France. The Appeal is being sponsored by FOE International and many other groups throughout Europe and was sent to the Italian Press and Government on May 5th.

FOE Italy is concerned that, with Superphenix-1 due to be commissioned later this year and the recent agreement between West Germany, France, Italy and

Britain, FBR's are entering a decisive stage in their development. However, none of the serious problems posed by this technology have so far been seriously discussed. No assurances on the proliferation aspect of FBR's have been given, and no reliable costings are available. Safety problems of FBR's are even greater than for thermal reactors.

In recent years a wide-based movement, including many independent scientists, has tried in vain to elicit clear answers from various governments regarding this

new technology: 1300 scientists addressed an appeal to the European governments in 1976.

FOE Italy state in their Appeal mail out: "We refuse to tolerate these silences any longer. No economic option can constitute an alternative to democracy: the European people must be informed about the technology conditioning their own future, so they can make their own informed decision".

SCRAM will follow the course of the Appeal and will keep its readers up to date.

US Security

The 100kW research reactor at the University of California Los Angeles (UCLA) is to be closed down during the Olympic Games this July/August. The reactor is only a few hundred yards from one of the Olympic villages.

It is feared that the reactor is open to terrorist attack or theft because there is no protective containment building and inadequate safety measures. Sabotage of the reactor could result in dose of up to 1 million rems to the thyroid for those in the immediate vicinity.

The reactor is currently the subject of relicensing hearings. It has been operating on an interim licence since 1980. The Nuclear Regulatory Commission's Atomic Safety and Licensing Board has recently suspended the hearings because there was a "substantial misrepresentation" of the written security plan; during the hearings NRC staff and UCLA attorneys maintained they had no set requirements to meet in relation to protection of the reactor against sabotage or theft. The security plan explicitly states that it provides protection against sabotage or theft.

One particularly worrying factor about this reactor, and up to 25 other University reactors throughout the States, is that they use highly enriched uranium as fuel - enriched to over 90%, which is weapons grade. The NRC are attempting to pressure them to use less enriched uranium (20%) instead as a way of promoting the cause of nuclear non-proliferation. Dr Harling of the Massachusetts Institute of Technology feels that anti-nuclear groups would take advantage of the relicensing hearings for the converted reactors to try to close university reactors altogether. The NRC has told universities that it will try to smooth relicensing procedures as much as possible, but the universities doubt whether short cuts would be legally possible!

Critical Mass Bulletin, Vol. 1, no. 6
Nature 308 p.484.



PEACE CAMP / GATHERING AT CREYS-MALVILLE, AUGUST 1984

Creys-Malville is the site of France's first fast breeder nuclear power stations, Superphenix 1 and 2. They will be the focus of an international peace camp in July and August this year. Do you want to go?

"Superphenix is the technical basis of the French nuclear military force..." (French General)
Six hundred kilogrammes of weapons grade plutonium will be produced from Malville every year, while the Superphenix reactors feed electricity into the European grid at twice the cost of even other nuclear reactors. This has not gone unnoticed - there is a history of opposition to the Malville reactors and the policies they represent.

A coalition of French and European ecological, antinuclear, socialist and peace groups is organising a gathering for the 4th and 5th August, with a peace camp in the weeks beforehand, at a site 15km from the reactors.

Although many radical and active groups have been pushing for strong actions and a clear statement against civil and military nukes, the line the gathering as a whole will take is much softer. They are "not allowing" any actions which might affect the image of the gathering (as the French press is quite biased). There is a possibility that actions may take place after the gathering. The event is expected to be "peaceful", but there is no commitment to nonviolence.

The PEACE CAMP will start at the beginning of July, to make practical preparations for the gathering. Workshops and discussions will also be organised. A newspaper will be produced to inform the French public. Many groups are coming by bicycle (some from Switzerland) and publicising the event on the way. The GATHERING, which should be massive, will also have workshops, etc., and the usual speakers and music...

As the British state is, in our name, a shareholder and contributor to the fast breeder programme at Malville, it feels important that the British antinuclear/peace movement is well represented at these events. Are you interested in going? If enough of us want to go we could organise a bus... For more information contact Mark Blaxter, 128 Bethnal Green Road, London E2

tel 01-7396824
or Jeremy of the Scram Nonviolent Action Group.

ABRETONS MALVILLE
ET LA FILIERE SURGENERATRICE

ACID RAIN IN DIPLOMATIC CIRCLES

Britain has adopted an obdurate stance on the acid rain issue. It is up to research over the next five years rather than the 'Hysteria' of European nations to indicate the need for appropriate action. Stiff upper-lipped we must be content to press on with palliatives such as the experimental liming of Loch Fleet in south west Scotland.

We could have faith in the application of 'appropriate action' if it were not for the appalling track record of successive governments over environmental problems, and if it did not so often translate as merely short-term economic expediency. There are two camps for environmental decision-makers; too little too soon and too little too late. As far as the acid rain issue goes there are few nations whose responses are adequate to exclude them from either category.

Britain's resolve, however, is paying off in small ways with the savings of taxpayers' money. In March, for instance, William Waldegrave MP, the Under-Secretary holding the acid rain brief, saved UK citizens the cost of a return air fare to Ottawa.

Charles Caccia, the Canadian Environment Minister, had invited his counterparts from the US, Scandinavian and European nations, including the UK, to a two day conference on multilateral action to curb acid rain. The only qualification was that attending nations must have agreed in advance to implement, by 1993 at the latest, cuts of 30% in the 1980 level of emissions of sulphur dioxide (SO₂) - the major component of acid rain. The UK failed to make the grade.

Interestingly, it was only a fortnight before the conference convened that the Canadian hosts made the 30% grade themselves, deciding, instead of 25% to go for national reductions in SO₂ of 50% by 1994. Diplomatically, it never looks good for a host to be outdone by guests and France and Germany have gone for 50%.

As regards North America, around 15% of the acid rain problem in the northeastern US comes from Canadian emissions whilst more than 50% of deposition in Canada originates in the US. Conveniently for Mr Caccia, not only does the 50% figure make Canada 'leader of the pack' in the emission reduction stakes but, if adopted by both the US and Canada, would bring down annual deposition to a level which would not only prevent further damage but allow for reparation.

Caccia failed to conclude a 50% bilateral agreement with the US and so used the conference and the concern of European nations as a stick to beat his southern neighbours. The nine Euro-Scandinavian nations who attended were anxious to spotlight the

UK as an irresponsible polluter which has promised neither decision dates nor cuts.

So as bouncer on the door (and less as a money-saving gesture to the British taxpayer) Caccia was free to bar from his function both the UK and the US; two drunkards reeking of uncontrolled emissions.

Now Canada must use its new-found status to benefit the environment in Europe. Thirty per cent and even 50% cuts in sulphur dioxide will be inadequate remedies. Last year, European foresters called for a 75% cut to protect continental forests. The European Commission wants reductions of 60% in SO₂ along with 40% in other acidifying air pollutants. The consensus in Ottawa merely established a precedent for multilateral action over air pollution. Now we have to ensure that it holds up when realistic percentages are discussed.

Andy Kerr (FOE Scotland).

The acid rain bandwagon rolls on through June with a number of important meetings:

June 4-6	Experts on Cost/Benefit Analysis [UNECE]
June 7-9	World Economic Summit, London.
June 20	FAO et al, Acid rain & forestry
June 24-27	East/West conference in Munich
June 28 plus	Environment Council
June 14	European Elections

Little Black Rabbit might perhaps like to comment on the rumour that the UK in voting on the North Atlantic quota of Minke whales at the 1984 International Whaling Commission meeting was reacting to pressure from Norway over acid rain. The current exchange rate would appear to be 78.3 tonnes of sulphur dioxide to the whale.



Nail in the coffin

A nuclear-powered cargo vessel has been converted to more conventional fuel oil propulsion. The research vessel **Otto Hann** was built in the late 1960's as a state supported nuclear propulsion project for the GKSS (roughly translated as the Company for the Application of Nuclear Energy in Shipping) and was powered by a Babcock Consolidated Nuclear Steam Generator of 38MW.

She traded quite widely but was never intended as a viable project in the long term, although she was expected to provide nuclear training experience for much larger ships being proposed at the time.

She was laid up in Hamburg in the early 1970's and the reactor was removed "a few years ago".

We don't know what happened to the reactor, or how much the conversion to oil cost. Nevertheless, the renamed **Trophy** is trading now as a symbol of the folly of nuclear power and may represent one more nail in the coffin for the nuke supporters!

Shipbuilding & Marine Engineering International, December '83.

All MOD Cons

Pitreavie Castle, near Dunfermline in Fife, is believed to be the UK/Nato command and control HQ for air and sea operations between the North Sea and the North Pole and in addition to be able to initiate a Polaris launch, should the Joint Maritime HQ, a bunker at Northwood London, vanish.

The MoD announced that control is being centralised at Northwood due to pressure on manpower and as an efficiency measure. However it was stated that "the reorganisation would have no impact on civilian employment" and further that "only one or two unformed personnel

would go". No significant manpower savings there.

The rundown of the facilities is similarly hard to detect, since communication and data processing equipment is to be installed, to duplicate the facilities at Northwood and Pitreavie is being phased into a new satellite communication base at Balado Bridge and the microwave communication network.

To our mind a rundown that involves one or two uniformed jobs and a substantial investment in new equipment is not the same as a rundown in the NHS or NCB and is to be much preferred. A PR exercise.

Consumer Campaign court case

In a recent case in Cardigan County Court, Judge Tom Lewis Bowen ruled that a Consumer Campaign withholder must pay the South Wales Electricity Board an outstanding debt of £52.09 plus costs. Following the hearing Dr Brian John, a publisher living in Newport (Pemb.), said that he never seriously expected to win the case but the ANC Consumer Campaigners are undeterred. He said "SWEB had taken it very seriously indeed and had been forced to look into their statutory obligations carefully. They had studiously avoided the fundamental issues involved, and had won the hearing on what were basically fine legal points."

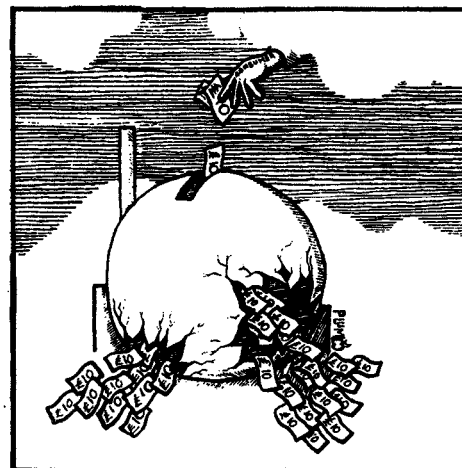
The case was the first of its type under English Law (see SCRAM 28 & 29). Dr. John, who had been withholding 11% of his electricity bills since September 1981 as a protest against unnecessarily high tariff charges arising from the use of nuclear-generated electricity, had earlier avoided disconnection and opted for a County Court hearing. SWEB asked for a summary judgement on the grounds that there was no valid defence, but had their request turned down at the Pre-Trial Review in October 1982, when the Registrar ordered the full Court hearing (see SCRAM 33).

At the hearing on 21st March this year Dr. John filed a counter-claim, arguing

that he had suffered financial loss as a result of the Board's involvement in nuclear power. He claimed £49.01, comprising a sum for the 'nuclear portion' of his bills over the last three years and an additional sum for general damages arising from the Board's "failure to exercise its duties of care in permitting him and his family to be exposed to the dangers of nuclear technology".

The Judge refused a request from Dr John to hear expert evidence on the economics of nuclear power and their effect on consumer tariffs on the grounds that such evidence would be irrelevant to the matter in dispute. In its submission the SWEB argued that it had no control over the generating policy of the Central Electricity Generating Board as its duties were strictly those of a distributor or supplier. Most of the case related to the difference between public law and private law. Dr. John was not justified in disputing the amount owed for electricity consumed on grounds that were essentially related to public law; the SWEB and the CEGB are "different persons in law".

(Apart from the differences between English Law and Scottish Law, the electricity situation in Scotland is less complex - the South of Scotland Electricity Board is, at the same time, producer, distributor and supplier.)



Accepting these arguments, the Judge ruled in favour of the Board and dismissed Dr. John's counter-claim, although he commented that he meant no disrespect to Dr John, who had prepared his case with great thoroughness, and that the counter-claim was a matter for judicial review.

"The whole nuclear/electrical establishment is now very much on the defensive as far as nuclear economics and environmental, social and moral issues are concerned", observed Dr. John. "The Consumer Campaign will learn a lot from this hearing and will modify its future tactics accordingly."

STOP PRESS

Brian's costs have been set at £750. He will contest it but will only succeed in delaying payment. Any donations are welcome. Make cheques payable to 'Ymgyrch Defnyddwyr Cymru' and send to Ymgyrch Defnyddwyr Cymru, Tanygwyst Cwmmins, Llandudoch, Abertelfi, Dyfed.

On the road again

Greenpeace has taken to the road; with a new exhibition bus. The Rainbow Bus, so called because of its colourful exterior and the legend of the Warrior of the Rainbow, on which Greenpeace's philosophy is based, has been touring Northern England since early April, after a successful 2 week tour of the Irish Republic.

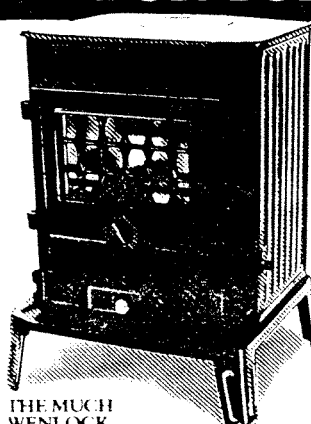
Now the Bus is on its way north and judging by the terrific response it has received from the general public and local authorities, Greenpeace is eager to visit as many places in Scotland as possible.

The interior of the coach houses displays which will change periodically and a selection of videos showing Greenpeace's campaigns, and visitors will have a chance to talk to the personnel and purchase Greenpeace merchandise.

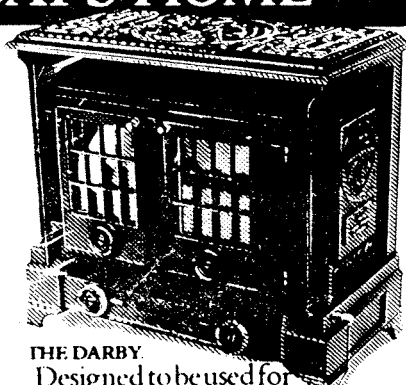
The Bus was renovated and made operable by public donation and the help of volunteers and Greenpeace is hopeful that this generosity will continue as the Rainbow Bus becomes more widely known. Anyone who would be able to help with pre-publicity and mechanical problems that occur should contact Cameron Sharp on 01-251-3020.

The Bus will be in Scotland during July and August and Greenpeace would be pleased to hear from local authorities, groups, and individuals who would welcome this travelling informative ambassador in their area.

TRADITIONAL WARMTH FOR TODAY'S HOME



THE MUCH WENT LOCK

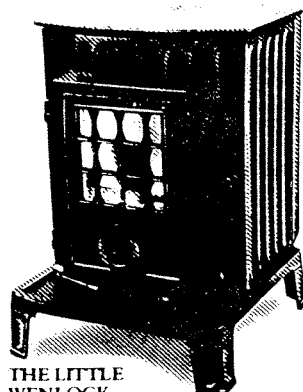


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Nuclear Convoy

About once a month a convoy carrying Chevaline warheads travels between Burghfield, near Reading, and Coulport, about 40 miles north of Glasgow. The convoy usually travels along the M4, M5, M6, A74, and then by a variety of routes to its final destination at the Royal Navy Armament Depot at Coulport.

The reason for the convoy's regularity is unclear, but it is thought that the warheads become unstable and unsafe after a while and that they have to be taken to the Royal Ordnance Factory at Burghfield to be reconditioned. The convoy is believed to take warheads which have been reconditioned to Coulport on its way to collect unstable ones.

The convoy usually includes up to four 'police' motorcycles (actually RAF Regiment personnel dressed as policemen); three of four dark green minibuses carrying armed guards and escorts' luggage; a 'Green Goddess' fire engine; a special support vehicle



which looks like a large green furniture van and carries a water cannon, tear gas, extra weapons and ammunition etc.; and the most important vehicles: up to six (but usually four) British Leyland ten-ton 'Mammoth Majors', which carry the warheads.

In recent months there has been an increasing number of civilian police escorts, as the convoy attracts greater public attention.

Although nuclear safety teams are supposed to travel with the convoy, we have not noticed them. The most prominent and worrying aspect of the convoy is safety. Ironically the MoD appear to have more concern about the security of it. The potential impact on the environment caused by any type of accident is currently being assessed by technical experts. Meanwhile the convoy travels up and down the country with a total disregard for the laws pertaining to the transport of dangerous and volatile materials.

Regular actions against the convoy have had little effect due to the lack of numbers, but as time passes actions are becoming increasingly more effective. One day we will stop this convoy permanently....

If you would like to take part in non-violent direct actions relating to the convoy or if you would like more details, please contact:

Faslane Peace Camp, Shandon, Helensburgh, Dumbartonshire.

Sub Stories

The Royal Navy's nuclear powered hunterkiller submarine *Turbulent* has a leaky secondary coolant system. The MoD indicated that there was no radiation hazard and repairs were undertaken. Later, as the £180 million submarine was about to enter service, a second coolant leak appeared. We thought cowboys rode horses.

Trident is following the path taken by most military contracts, it is becoming more expensive. Tarzan reports an increase of £1.209 billion pounds to £8,172.9 billion whilst the Centre for Defence Studies, University of Aberdeen, give the cost as £11.5 billion up from ten billion in 1983/84. This is despite a money saving move, the intention to base the missiles in the States rather than at Coulport. This reduces the UK participation in the venture from 70% to 55%, the 70% involvement was initially used to sell the whole project.

Also for the Trident programme and the expanding hunterkiller fleet, is the expansion of Faslane. A parade of Admirals is to announce the expansion plans in Dumbarton later this month, May. The new labour council are solidly against the plan, despite local employment, and were returned with reinforcements and increased votes after the recent local elections. The new council includes Les Robertson of the peace camp and the leader of the Anti Trident Campaign.

As the economy continues to collapse the moneygrabbers are turning their piggy eyes to defence expenditure, now at £17 billion. This is above that of Germany or France and way above Italy where £10 billion is deemed sufficient. The UK and Italy have similar gross national products whilst we trail behind Germany and

France. The entrepreneurs are after the plum contracts for the Trident Subs and the refitting of the nuclear powered subs. The Barrow yard used for sub construction is part of British Ship Builders, having been acquired from Vickers. In the hands of the state the yard received massive investment which combined with the uncompetitive nature of arms contracts make them ideal for privatisation, Tarzan is very keen. Also up for grabs are the parts of Rosyth Dockyard, those used for refitting nuclear powered subs. Dr. Gordon Brown, the MP for Dumbarton East, exposed this grubby venture. Characteristically the MoD are after his source "The Admiralty police are investigating the unauthorised circulation of Mr. Levene's report". The Admiralty Board have approved privatisation in principle. The plans will allow entrepreneurs to lease the Navy Dockyard. Leasing removes the risk associated with investing capital and as the contracts for the lease and the refits are both with the state they can be readily made profitable. This wonderful money making idea came from Mr. Levene who works part time as an assistant to Tarzan, the other part is for private defence contractors. We are assured that Mr. Levene is coping well with the conflict of interests, sceptics would say too well.

In the Sea of Japan the American aircraft carrier *Kitty Hawk* ran into a Russian nuclear powered sub. The US Defence Department announced that neither was badly damaged and blamed the Russians, the sub was said to be travelling without lights. In the 1980's when warships bristle with electronics the absence of lights should not lead to a potentially serious collision. A more likely explanation is the game of chicken played by the boys at sea.

The movement of fissile material by the MoD is covered by the Official Secrets Act. Consequently the MoD operates outside the public domain and without the supervision of the Health and Safety Executive. By contrast the CEBG is responsive to public pressure. This has led to a change, 'even safer' in the design of fuel flasks, their discussion at the Sizewell Inquiry and media stunts.

The CEBG flasks have 14 inch thick walls and weigh 50 tons. Those of the MoD must be lighter, given the vehicles used, and are therefore more vulnerable to damage. The convoys use the public road network rather than rail. Rail has a better safety record with large loads and is relatively distant from the public. Overall the methods of the MoD are more likely to result in an accident but the D notice system has(?) kept minor accidents quiet.

Following Chris Church's article in the last issue [towards a strategy on Nuclear Waste], I would like to discuss a strategy, and some demands we should be making on Alternative Energy Strategies. There are plenty of reasons why we should be campaigning FOR a radical change in energy policy other than just the fact that it is an alternative to nuclear power. It is these reasons which I'm going to concentrate on.

Over recent years the UK has enjoyed a period of self-sufficiency in oil supplies, and thus has had a temporary respite from the pressures of the world energy markets. Self-sufficiency has provided us with a breathing space - an opportunity to strengthen our economy in preparation for the time when our oil and gas supplies dry up.

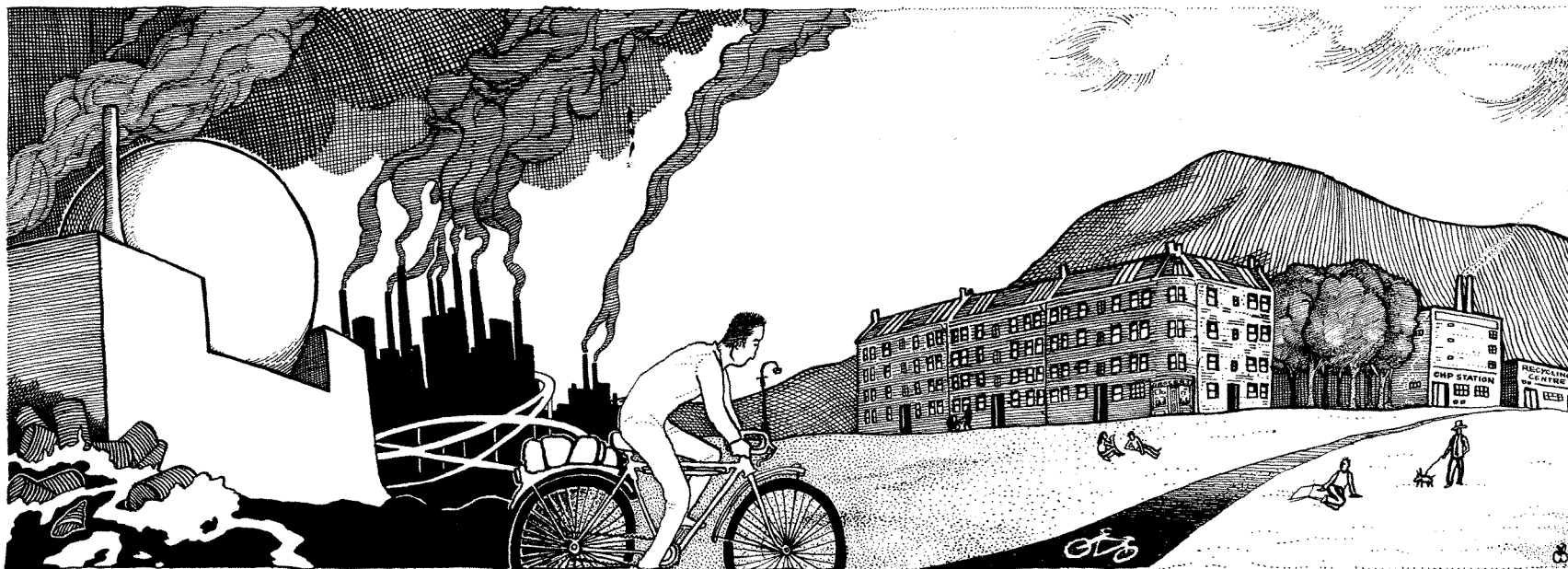
The obvious thing to do is to use oil revenues to finance an investment plan to reduce our dependence on oil. We could be financing a programme which would allow a smooth transition to patterns of energy use appropriate to conditions of high energy prices and shortages. Traditional energy strategies would have us believe that this would involve the use of Synthetic Natural Gas and coal derived oil substitutes. But a strategy based on energy conservation is far more attractive.

At present rates of consumption the UK's oil self sufficiency is unlikely to last much beyond 1990 and the bulk of our oil and gas reserves will be exhausted by the year 2000. If a serious oil shortage is in prospect before the end of the century, it is already too late to develop the energy strategy envisaged by official plans.

Rising energy prices affect everyone, but the impact is very uneven, with the poor suffering particularly. Falling comfort standards and increased condensation in underheated houses are important causes of ill-health, hypothermia and even death. The Neighbourhood Energy Action programme has set a useful precedent, but the projects, which carry out insulation work for low income groups, are too thin on the ground, and the quirks of the Manpower Services Commission do not help them to run efficiently. One might have expected more measures to be taken to help cushion poorer consumers against high energy prices during our period of self-sufficiency, but instead the situation for them has got worse. Unemployment has increased, housing finance has been cut, structural defects go unrepaired and dampness is rife.

It did not seem unreasonable to expect that during our period of self-sufficiency in oil and gas the UK, as a nation, would be substantially better off. Instead of providing the basis for an economy self-sufficient in energy

Towards an energy efficient future



after our oil supplies run out, our new wealth has been used to finance large numbers of people on the dole. The oil has been managed in such a way that exchange rates have been forced up and British manufacturing has declined sharply. A contraction of industry jeopardises our eventual power to pay for the imports we need. Unless adequate policies are implemented now, by the 1990's Britain will have lost the advantage of its own indigenous oil and gas supplies. We will then be thrown back onto the world oil markets which will adversely affect our balance of payments, and when oil revenues start declining, sterling could well collapse with the risk of unprecedented inflation in the UK.

So what do we need to do to stop this headlong rush towards economic disaster?

1. Firstly we need to conserve our oil - reduce the rate of extraction and stop all unnecessary exports. We need to introduce a range of measures which will save oil; from electrifying the railways to a national speed limit of 55 m.p.h., from improved bus services to the introduction of statutory energy efficiency standards for cars.
2. Secondly, we need to prioritise the needs of low income groups. According to the Association of Metropolitan Authorities' report, up to a million dwellings built in the 1960's

and 70's may be defective and could be dangerous, structural defects in systems-built blocks of flats include damp, condensation, poor insulation, rotting and ill-fitting windows and doors. Some blocks probably deserve no more than demolition, but others could benefit from renovation which included external wall insulation and the installation of a decent heating system. District Heating would be ideal, so we need to make sure that any plans for District Heating networks include provision for peripheral and other housing estates. In conjunction with a massive house renovation programme we need to demand proper insulation measures which will reduce energy consumption to the bare minimum.

3. It appears that nearly everybody is fed up with large nationalised industries. Needless to say we wouldn't want the electricity boards to get their grubby hands on the Combined Heat and Power programme. Any alternative energy policy should include the phasing out of large boards. We could start this process by demanding that any new CHP schemes are controlled locally.
4. 80 or 90% of UK dwellings could make use of district heating, according to the ERR report

"Energy-Efficient Futures" (see SCRAM No.36). Yet the Department of Energy has concluded that only 30% could make use of it. So we need to demand an increased role for CHP. We also need to make sure that the schemes are designed to permit maximum flexibility in the type of heat source used. If they are designed to operate at a maximum temperature of 60-70°C instead of 120°C which is used in most of Northern Europe they could eventually be converted to using solar energy as the heat source. Low temperatures, in fact, enhance the ability of heat mains to accept an input from a wide variety of heat sources. This policy is perfectly practicable for existing buildings, provided the buildings have been better insulated.

5. The Neighbourhood Energy Programme should be expanded to cover the whole country. Draught-proofing gives a very quick return on the money invested. It is currently organised and controlled on a local basis, but could do without the MSC's restrictions. Not only should houses be draught-proofed when they are renovated, but it would be worth doing on houses which weren't due for renovation for a few years.
6. A much better system of grants and incentives is needed to encourage

owner occupiers and industries to invest in energy conservation measures. Loans and grants should be offered to householders to get an energy audit carried out and then to carry out the works suggested by energy consultants.

7. A large energy conservation programme, coupled with the introduction of Combined Heat and Power, would mean that we could do without nuclear power, and wouldn't need to start introducing renewable technologies on a large scale until next century. This gives us the opportunity of researching different technologies and choosing the most appropriate ones for our needs.
8. I have deliberately emphasised the necessity of local control over the new energy institutions, which we undoubtedly need to set up, and the breaking up of the large nationalised energy industries. We need to discuss the exact format of the institutions which we would like to see formed. However one way of moving the campaign forward would be to campaign for "Energy Conservation Zones" along the lines of "Nuclear-Free Zones". We could campaign for local authorities to plan the setting up of local energy boards, which would be run by democratically elected council-

lors and co-opted tenants association representatives and trade unionists. These boards would run the local CHP scheme, organise in conjunction with housing authorities an energy conservation programme, and draw up plans to organise the introduction of renewable technologies.

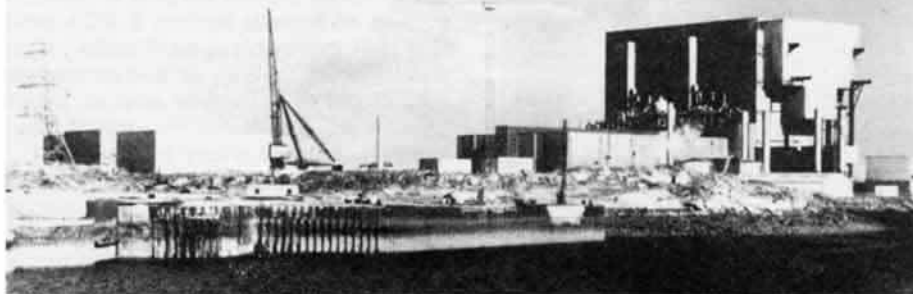
9. Drawing up local energy plans could unite many campaigns from anti-dampness groups to anti-nuclear waste dumping groups. In an area like Lothian Region it could include everything from how to improve the public transport network and facilities for cyclists, the external wall insulation of Edinburgh's 67 tower blocks to hydro power reserves in the surrounding hills. An addendum could be attached to the Lothian Energy Plan, which included various possible uses for the now redundant Torness nuclear power station site.

Pete Roche

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All Gone Rong



Following the short piece in the last issue of SCRAM on the problems encountered in the commissioning of the Hartlepool Advanced Gas-cooled Reactor, we can now reveal in more detail the design faults which had to be overcome in the construction of the station. We suggested that the plant may never come back on steam after its shut-down in August. Well, many people were surprised when the power station did start feeding electricity into the grid again; even Sir Walter Marshall is reported to have said that he didn't expect it to come on steam before 1985! Why so soon? For the answer to this and many other questions, read on...

Hartlepool and Heysham I were the first two nuclear power stations of identical design built for the Central Electricity Generating Board, and both have had many set-backs since work began. Construction started on Hartlepool in 1968; Heysham was started towards the end of 1970, but delays at Hartlepool meant they were commissioned at the same time.

The commissioning programmes for both stations' first reactors lasted about 60 weeks, and were carried out by the National Nuclear Corporation in accordance with the CEGB's plans; the work was done by a joint team of NNC and CEGB staff (the NII 'independent' watchdog was nowhere to be seen!). The engineering runs were designed to detect any major faults, and there were plenty.

A failure in the pipework of a boiler closure seal system limited the gas pressure at which tests could be carried out - in some cases the lower pressure was considered adequate, but the main gas relief valves could not be tested. Later in the run there was a fault in a gas circulator motor which forced a shutdown. Other problems also arose. For example, the pressure vessel cooling system developed small leaks, and control rods stuck because they caught on a

ledge within the standpipe and the gas bypass valves jammed.

At the end of the run problems were corrected where possible and fuel was loaded. However, searches for the leaks in the pressure vessel cooling system met with no success as the leaks 'disappeared' when the vessel was depressurised. As well as the tests originally planned, items modified as a result of the unfuelled run were also tested. Items such as the fuelling machine, not previously tested, were also checked at this stage.

A long period followed for repairs to the gas circulator motors and changes to the fuel plug unit. Alterations to the control rod clutch were

also needed after it was found that the control rods were not immediately released on loss of power. This system is designed to 'Scram' the reactor, and its failure during power generation could result in a catastrophic release of radioactive materials.

The next run was essentially an information gathering run, but there was another failure of the boiler closure seal system. The final run detected three more failures, so it was decided to repair all the pipework connections to the main boiler closure flanges; this took six weeks.

There were a disturbingly high number of spurious trips at this stage, the main problem being the failure of the gas circulation jacking system. This has been even more of a problem than appeared at first and modifications are being made to bypass the fault. Ignoring the problem is obviously easier than solving it, even if public safety is at stake.

Unit 2 had an unfuelled run for plant proving from June to August 1982, and a fuelled engineering run late '82/early '83. Problems similar to those in unit 1 were encountered and major improvements to the fuel plug units and gas circulators were found to be necessary - nothing is more likely to fail than something which is designed as it is built. Following fuel reloading, power raising is expected to start soon.

These are some of the reasons which have resulted in the ten year delay in the construction of Hartlepool. It only goes to show that Lord Hinton was right when he described the AGR as "a disaster that we need not repeat". We would go further, and say that the nuclear power programme is a disaster that must not be allowed to continue!

Kevin Dawes

So, why, with all its problems, has Hartlepool been commissioned so soon? There may be a simple explanation which Mr Parkman, the station manager, would of course deny. This is that nuclear power stations are being run at maximum possible power output to 'take up the slack' from coal-fired power stations during the miners' strike. Information from within the plant seems to bear this out, and indicates that it is suffering many problems in trying to get up power. It will probably shut itself down again before long. Let's hope so!

Following the May Day Rally in Stockton, Cleveland, on April 28th, representatives of several local environmental groups went to Hartlepool nuclear power station, where they altered the official CEGB sign to read: **Hartlepool Power Station, Producing Waste Nobody Wants.** They then handed over to Mr Parkman, the manager, several personal letters as well as a number from groups including Greenpeace, Barrow and District Action Group and Cleveland Anti Nuclear Group.

In the letter from Greenpeace, Pete Wilkinson expressed his concern regarding the transport, reprocessing and storage of nuclear waste. He addressed the manager thus: "Please consider the consequences of the industry of which you are part, and recognise that a growing number of people refuse to allow our future generations to inherit the problems you are helping to create".

On behalf of BDAG, who are instrumental in the campaign against Windscale, Irene Brunskill expressed concern about the production of more nuclear waste which could be reprocessed at Windscale. She reminded the manager of the links between radiation and cancer around Windscale, which was highlighted in the re-



cent YTV programme.

The letter from CLANG expressed concern about the safety and reliability of AGR's, particularly Hartlepool, and questioned the cost of nuclear reactors and whether Hartlepool would ever be 'economic'.

We await Mr Parkman's response with interest.

Argentina—after the Belgrano

There have been dramatic developments since SCRAM last reported on how nuclear power is fuelling the nuclear arms race in Latin America [see SCRAM 31]. Here we bring the story up to date.

On November 18th last year Admiral Carlos Madero, head of the Argentine Atomic Energy Commission (CNEA), shocked the world with his announcement that Argentina had mastered the technology for uranium enrichment. An enrichment plant had been under construction secretly for five years at Pilcaniyeu near the border with Chile, and about 700 miles south-west of Buenos Aires. The plant is due to be completed next year.

Enrichment is one of the most sensitive 'dual-use' nuclear technologies (see box for technical details) which the advanced nuclear states have agreed not to export. However, countries with nuclear weapons ambitions - like Pakistan, Brazil and now Argentina - are all building small enrichment plants.

Admiral Madero's revelation caught the world unprepared: even the CIA, which keeps a close watch on Argentina's nuclear programmes, had concluded that Argentina was not following the enrichment route to the bomb. A CIA report prepared before the announcement and after it leaked to the *Washington Post*, had been concerned only with plutonium. It concluded that Argentina could have atom bombs by the end of 1984 if the project was given top priority, and by 1986 without a crash programme. 1986 is the year that the Ezeiza reprocessing factory will begin separating plutonium.

Brazil responded to Admiral Madero by speeding up its own enrichment plans. Brazil is importing both an enrichment facility and a reprocessing factory from West Germany under a contract signed before the export moratorium was agreed. The deal has been delayed mainly due to Brazil's chronic debt crisis.

Brazil also engaged in some nuclear sabre-rattling. On December 9th the Brazilian newspaper *O Estado de São Paulo* predicted "total technological independence" in nuclear energy in seven years when Brazil would produce a 20-30 kiloton nuclear warhead for the 3000 km range missile which is under development. Brazil's military Chief of Staff commented that research on the "entire potential" of nuclear technology was under way. He added "... whoever manages to muster nuclear technology can even manufacture a bomb."

Despite the increased technical capacity for Latin American countries to build the bomb there are signs that Argentina's new civilian government would like to frustrate the Generals' ambitions. President Alfonsín promised as much before his election and has since appointed a civilian to replace Admiral Madero as head of CNEA.

In nature uranium exists in two forms — U-238 and U-235. Natural uranium has only 0.7% of the fissionable U-235. Most reactors require fuel in which the proportion of U-235 is raised to 2% - 4% [low enriched uranium]. For nuclear weapons the proportion is raised to over 90% [highly enriched uranium]. The enrichment plant at Pilcaniyeu is reported to be capable of producing uranium enriched to 20%. However, if this is then used as feedstock, the plant would produce highly enriched uranium.

However, President Alfonsín has been reluctant to enter into any legal commitment not to produce nuclear weapons. There are three fora for such a legal commitment: the Non Proliferation Treaty (NPT); the Treaty of Tlatelolco, which makes Latin America a nuclear free zone; or an agreement accepting IAEA 'safeguards'. Argentina has consistently refused to sign the NPT on the grounds that it discriminates between the five states allowed to have nuclear weapons and the rest who are not. Argentina's re-

cent war with a nuclear weapon state has aggravated this position. As Admiral Madero told a conference on nuclear power in 1982:

"There can be no doubt that, in a conflict between two states, one of which has the privilege of using nuclear weapons ... and the other without it, the first will try to impose its will on the basis of this advantage. This would be possible due to either the abysmal difference of military might if it has nuclear weapons or, to a lesser degree, by the clear advantage of using military systems with nuclear propulsion. The preposterous action recently carried out by the United Kingdom against the Argentine cruiser ARA General Belgrano is sufficient proof of this."

The sinking of the Belgrano has spurred Argentina's desire for nuclear-powered submarines of her own. This is one reason why President Alfonsín will not ratify the Tlatelolco Treaty, which makes no provision for nuclear-powered submarines.

Another reason is the possible presence of nuclear weapons on board the Falklands Task Force. Britain has signed Protocol II to the Treaty agreeing not to introduce nuclear weapons into the nuclear free zone. Whilst there is circumstantial evidence to suggest that there were nuclear weapons in the Task Force, Britain has refused to deny that she violated the Treaty.

Protocol II, article 2

The governments represented... undertake therefore not to contribute in any way to the performance of acts involving the violation of the obligations of... the Treaty in the territories to which the Treaty applies.

The possibility remains that Alfonsín will permit IAEA inspectors to 'safeguard' Argentina's nuclear facilities. However he will insist on two conditions which will make the exercise worthless. Firstly he will insist that Argentina can withdraw material for use in developing submarines. Submarine fuel is highly enriched uranium - a nuclear weapons material. Secondly he will retain the right to conduct 'peaceful' nuclear explosions, thereby providing a cover for nuclear weapons tests.

The race towards nuclear weapons in Latin America has taken some unexpected turns since SCRAM last reported on the region. However the danger of proliferation persists and the Falklands/Malvinas squabble remains a major obstacle to attempts to reduce the risks.

Jos Gallacher



Hans Blix [IAEA] and Carlos Madero [CNEA] at Ezeiza airport.

Trashpower

A massive campaign has been launched to exploit the potential of Britain's rubbish. The WARMER Campaign (Warmth and Energy from Rubbish) was introduced on February 3rd in Westminster and is intended to focus urgent national attention on the value of refuse as a practical and renewable energy source.

This year Britain will dump over 30 million tonnes of rubbish, with a calorific value equivalent to 12 million tonnes of coal; and of the 20% by weight that is non-combustible, most is glass and metal which are eminently recyclable.

Fuel	Sulphur Dioxide	Nitrogen Dioxide
'Raw' refuse	0.2 - 0.5%	100 - 130 ppm
RDF	0.3%	120 ppm
Coal	1.5%	500 - 700 ppm
Oil	3.5%	150 - 300 ppm

[SO₂ and NO₂ are believed to be the main causes of acid rain].

There are two alternatives in how we use the combustible rubbish as fuel. There are over 1000 incinerators worldwide which burn rubbish direct - in its raw form - to produce heat and power, as well as a very useful residue which can be used in the construction industry. The other alternative is converting the rubbish into Refuse Derived Fuel (RDF). Already being manufactured in this country, RDF could satisfy 13% of industry's current heat demand and is capable of being burnt in normal

boilers.

The Campaign is being run by Philip Every Associates - professional PR firm - and is being substantially funded by the Swedish-backed World Resources Foundation. The Campaign has environmental and political broad Party support and the Dept. of Energy seems to be taking an interest - the Energy Efficiency Office is already supporting 23 waste burning schemes. The CHP Association is also taking an interest.

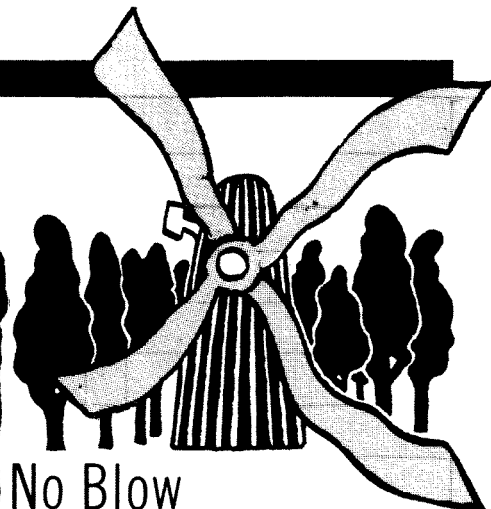
As well as providing a cheap energy source, the Campaign hopes to be able to conserve valuable oil and coal stocks, close down unsightly and dangerous tips, create jobs and reduce pollution (see box).

Parlgeas Bulletin, March '84

The Greater London Council is investigating the possibility of converting ageing CEGB power stations into refuse burning stations. The GLC already operates one station, Edmonton, in North London; and a feasibility study for two stations in the South East is expected soon.

Edmonton presently burns 300-400 thousand tonnes of rubbish annually, generating some 50V Mhr which is sold to the Eastern Electricity Board for £4 million. The two new candidates are expected to be the 410MW oil-fired station at Belvedere and the 158MW coal-fired station at Deptford.

Electrical Review, 27.4.84



No Blow

The CEGB has delayed plans for Britain's first large wind turbine in Kent. The Board had planned to order the 2-4 MW machine by the end of last year and had planned to have it working by 1985.

Following recent disclosures about the poor performance of large-scale aerogenerators - blade fatigue, failures in electrical equipment and noise - the Board is not willing to make an order until it is confident that the turbines will be reliable.

Smaller windmills are widely believed to be more economic and reliable than the large machines presently being investigated by the CEGB. However, the Board remains committed to the large-scale technology.

Britain's first large machine will now probably be the 3MW turbine being built on the Orkney Islands by a private consortium with Dept. of Energy backing. It is due to start spinning at the end of next year.



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Polytechnic of the South Bank, London SE1 01 928 8989 ext. 2399.

CHP: Government cops out?

The Department of Energy has eventually made a public statement about combined heat and power [CHP]. In the Summer of 1982 a study commissioned by the Government from W S Atkins & Partners was published; the report was very favourable in its conclusions. The study considered nine potential 'lead cities' - Belfast, Edinburgh, Glasgow, Leicester, Liverpool, London, Manchester, Sheffield and Tyneside - and urged that an early start is essential if CHP is to make a significant contribution to energy supply as gas and oil reserves decline.

Since then the House of Commons Select Committee on Energy has produced a report - published in April 1983. The report described a number of institutional factors which have inhibited investment in CHP and district heating (DH) schemes. So that CHP/DH should not be placed at a disadvantage the report stated that ways should be found urgently by the Government to arrange, assess and finance it on the same terms as the other public energy supply industries. Overall, the Government's attitude to CHP/DH was seen as irresponsible by the Select Committee.

The Department of Energy published its reply to the Select Committee report in April this year. The reply states that the Government wants CHP schemes to go ahead where they are economically viable: "Its approach is therefore to seek to ensure that there are no legal, financial or institutional obstacles which prevent the realisation of opportunities for the economic development of CHP".

The Government's reply, together with Peter Walker's recent announcement in the House of Commons seems to indicate that they have not forgotten this energy option. However, any serious interest in a national CHP/DH programme evaporated some time ago. The Government appears to be searching for a way to get out of any real commitment to CHP. Peter Walker's statement can be interpreted as a warning: "The Government is ready to encourage the formation of local consortia... on condition that there is substantial private sector participation... and on the assumption that further development of CHP/DH would be a viable private sector investment".

This lack of Government initiative is likely to weaken private sector resolve in getting involved in long payback period schemes. In a paper presented at the International Conference on Energy Options in London in early April, Mr P D Lilley of GEC's Mechanical Engineering Laboratory claimed that the returns on private investment in possible CHP schemes are still too low to encourage many such projects. The paper pointed out that further positive action by Government is required to consolidate the improved climate which has been produced by last year's Energy Act. In particular Mr. Lilley believes that private investment may be more attractive if some of the risks were removed; area board tariffs could be better constructed to allow for the sale of electricity to the Boards - the types of tariff so far cited appear penalistic.

In order to give private CHP schemes a greater rate of return, Mr. Lilley also called on the Government to continue and extend the boiler conversion grant scheme for adapting gas or oil plants to coal-firing.

Following the Atkins report Sheffield and Tyneside local authorities have commissioned further studies. Sheffield is confident of being able to fund a 'core' scheme in the city and is waiting for the re-

sults of a study into the viability of a coal gasification combined cycle plant. The three local authorities on Tyneside have received their report, commissioned by Atkins, on a 100MW 'starter' scheme.

But, we are still waiting for information on which cities of the nine, if not all (or any?), will get the CHP scheme envisaged by Atkins. Walker's announcement offered £34m for the next stage of the programme: the preparation of 'prospectuses' for two or three of the most attractive schemes. The Government will provide £250,000 for each of three cities "preferably one in each of England, Scotland and Northern Ireland" to draw up the prospectuses; the other half of the cost will have to be raised by the local consortium which wins the prize!

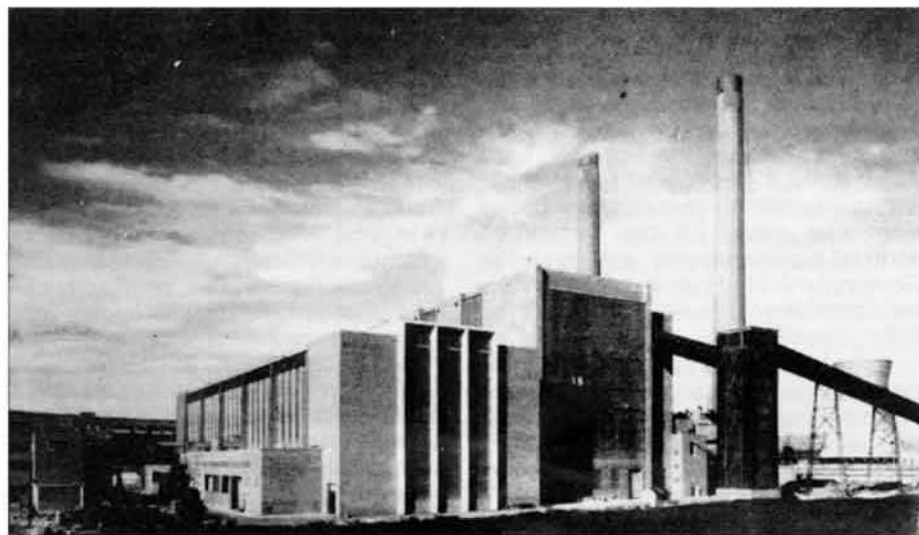
Ralph Cohen of Associated Heat Services is sceptical. He feels that the Government is trying to get interested parties together, then will stand aside - no good will come of such an idea. The energy supply industry is interested in the new initiative, but awaits a stronger Government financial commitment before the response could be described as rapturous.

announcement was made two years too late and has too many restrictions for it to succeed.

If the Government really wanted CHP to take off in a big way they should have made some sort of announcement immediately after Atkins, to show enthusiasm and capitalise on the inertia generated by it. After two years of "thorough study" the Government is now testing the water: just how far will private investment get involved in CHP, and how far can the Government get away from it?

Local authorities should be allowed to control the development, with or without private investment if they see fit, with substantial financial assistance from central funds. Assurances should be given that the fuel cost advantages of CHP are not lost through electricity pricing policies; guarantees should be given on rates of return; and tax advantages need to be secured. This will not only make it easier for local authorities, but may also excite private investment.

There would appear to be no reason why a local authority could not set itself up a private company to tender for the CHP project. In Lothian Region in particular there are pressing reasons for going ahead with CHP/DH. Councillor David Thomson (Con) is the vice chair of the steering committee examining the scheme. He has said the CHP scheme was critical to the future of Cockenzie (Scotland's oldest coal-fired power station still working) and the



Stella power station could form part of a combined heat and power scheme for Tyneside.

The proposals for the preparation of the prospectuses must reach the Dept. of Energy by July 31st and should include statements on at least the following:

- the staged development of the scheme;
- the organisation proposed to implement it;

- how the scheme will be financed and marketed.

So the race is on - but the winners will need to have sound private sector financing before they can get the £1/4m prize.

Although our European neighbours have been reducing their national energy bills for many years using CHP, this Government seems to be doing its utmost to suffocate similar programmes. The recent

Monktonhall pit, and it should be pursued for that reason alone. The National Coal Board and the South of Scotland Electricity Board are being asked to join a consortium with Lothian Regional and Edinburgh District Councils to submit proposals, regarding the use of Cockenzie (only 10 miles from the city centre), presently under threat from the nuclear programme, particularly Torness, which must be stopped now.

Steve Martin

Sources:

Electrical Review, 6th, 13th, 27th April, 1984.
Energy Manager, March 1984.
Evening News, 21st April 1984.

It aint what you do...

In the ten years since the first oil crisis, governments throughout the world have adopted a variety of measures to encourage investment in energy conservation. Numerous studies have concentrated on attempting to evaluate these. In December 1982 the Association for the Conservation of Energy [ACE] published a study entitled 'Comparison of the Energy Conservation Programmes of EEC Countries' which covered the wide range of incentive schemes available. The following article has been written by Ian Brown of ACE and summarises the most recent report from the Association: 'Administering Energy Savings'.

By concentrating on what the nation states of the Community were actually doing to assist conservation (as opposed to what they were saying officially they might do), we succeed in providing what the House of Commons' library still regards as the best contemporary 'state of the art' document. The House of Lords EEC Committee decided to republish the entire study as part of their excellent 'Rational Use of Energy' report last year - a professionally flattering if mercenarily damaging move for this Association.

However, whether written officially or unofficially, one factor our first Euro-study did turn up was the distinct paucity of attention given to the nature of the organisation adopted by the various governments in order to formulate and implement these various incentive schemes.

This was rather surprising, as certainly there was clear support for the need to alter the existing arrangements for the control of energy conservation policy in the U.K. The House of Commons Select Committee on Energy said so, the Lords EEC Committee repeated the point, Lord Rayner in his scrutiny of government administration of conservation policy was quite clear. All the Opposition political parties agreed, and even the Government made it a specific election commitment to set up the Energy Efficiency Office.

In the end, what happened was that last October only a modified version of the proposals contained in the Rayner Scrutiny (and very modified versions of the two Parliamentary Committees recommendations) were accepted by the Government. An Energy Efficiency Office was established, and was given the responsibility for providing a co-ordinating focus for the Government's energy

conservation programme. However the management of the component parts of that programme, and in the last resort the determination of the financial resources available to them, were left substantially in the hands of several other Departments of State.

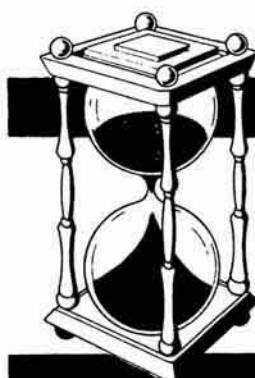
The creation of the Office did however coincide with the appointment of a new Secretary of State for Energy who immediately and enthusiastically acknowledged the importance of energy conservation, and embarked upon a major personal effort to increase the general public awareness of its importance, and to improve the performance and the visibility of his Government in this area. The impact of his personal high level of commitment must however be muted inevitably by the constraints upon, and the substantial inflexibilities within, the budget of that and other Departments of State.

It is arguable that the administrative arrangements adopted by government and in particular the fact that major expenditure decisions relating to conservation still remain with other Departments, may not be sufficiently supportive towards the Secretary of State's ambitions.

Having devoted many months to examining the arrangements that exist for the administration of energy conservation programmes in twelve other European countries (the EEC plus Austria, Spain and Switzerland), we are convinced that there are lessons to be learned from the countries where real successes have been and are being achieved in energy savings. Whilst the explanation for the success of say France and Denmark in reducing the 'energy intensity' (e.g. level of final energy consumption per unit of value added) must partly lie in the financial and regulatory measures adopted by these governments to encourage investment in conservation, there is usually another additional reason.

As our new study makes clear, it is the way in which those policies are administered which has a significant effect upon the amount of conservation investment achieved; there is a direct association between the mode of administration that is adopted and the apparent degree of success that those policies achieve.

As the country-by-country study demonstrates, the successful nations



are those where a high priority has been placed upon the determination and implementation of energy conservation measures - where in other words, they have a high political profile.

And whilst the study shows that quite varied administrative approaches have been adopted, the evidence it provides unmistakably leads to the conclusion that there would appear to be a distinct advantage in having an independent or at least semi-independent agency to assist with the formation and promotion of them.

Of course an exemplary organisational structure will not in itself ensure success in policy implementation; adequate financial and personnel resources and political will are also necessary to succeed. By the same token, an inadequate and fragmented organisation will certainly frustrate progress.

The lesson of these overseas agencies is one that the UK government has eschewed by creating its Office **within** the Department of Energy, arguing that being part of Whitehall it is better placed to assert influence with other Departments of State.

Leaving aside any concern about the inherently cautious nature of the civil servant reducing the effectiveness of the 'high public profile' regarded as a necessity for success by all commentators, the fear must be that, with the best intentions in the world, an Office within the Department of Energy will prove to have too little sway upon, and be loathe to criticise in public, the spending priorities of other government departments. Whereas an agency funded by government but independent of it on a day-to-day basis, could more readily strike a public stance in favour of the policies necessary to achieve more rapid progress.

By ignoring the recommendations of the Commons and the Lords' committees to form an independent Agency, the government may well have set itself a somewhat more difficult task in achieving its energy conservation goals than was in fact necessary. It is now the task of the Energy Efficiency Office to prove that continental experience is irrelevant, and the British parliamentarians wrong.

'Administering Energy Savings'; available from ACE, 9 Sherlock Mews, London W1. (Price £15 postage paid).



Peter Walker
Secretary of State for Energy

TORNESS: The Folly Continues

The reactor which brought SCRAM into existence is still festering on the East Lothian coast. The past few months have been eventful. There has been: a safety report; calls for mothballing; disregard of planning arrangements; rejection of a rail spur, by East Lothian District Council; difficulty in finding local labour despite high levels of local unemployment; and leaks in the reactor building. The race with Heysham II continues.

The economic case for Torness is now a very sorry object. The SSEB's 1973/4 report forecast a massive rise in sales, rocketing to 30,000 units in 1981, and the builders let rip. Reality can be a drag - 1982/83 saw a mere 17,397 units sold, about the same as in 1972. Herein lies the SSEB's problem-overcapacity - with presently 90% in excess of peak demand. The commissioning of Torness in 1988 will mean there is a glorious 130% more electricity than required. Even this understates the problem since the Board buys electricity from BNFL's plutonium generators at Chapelcross!

This all devolves upon the consumer, with a price rise of 4.8% in March, who pays the interest (£114m) on the gargantuan capital sums invested. This is more than twice the CEGB rise.

Another manifestation is the move away from coal. Over 8m tonnes of coal were burnt in 1975/6 and only 4.6m tonnes in 1982/3. The Scottish National Party's Energy spokesperson, Kerr MacGregor, predicts that this will drop to 2m tonnes when Torness comes on stream. Nuclear power stations are very expensive to build (2.3 times greater than coal) but nationally cheaper to operate, therefore nukes displace coal once the stations are built, regardless of the overall cost.

This is appreciated by East Lothian District Council who have called for the mothballing of Torness to preserve the output of Cockenzie and its associated pits at Monktonhall and Bilston Glen. D.A.S. McLaren, of the SSEB, has said "Cockenzie power station has a secure future", although no undertaking on the level of use has been forthcoming. The permanent staff at Torness will number 5 - 600 - about 3000 jobs could go at mines associated with Cockenzie.

Down on the site all is not well. The Board claim that the construction is past the half way point - the first reactor is due in service in 1987, and the second the following year. But things have gone wrong. SCRAM discovered that rainwater leaked into the number 1 reactor hall, on two separate occasions. The Board felt it was unreasonable to expect the roof to exclude all rainwater, despite the 'sterile' working conditions imposed on the workforce in the hall. It also appears that the crane which toppled over (see SCRAM 36) was positioned

over a manhole cover which broke: the SSEB deny this.

The Board were described as acting like "some rogue elephant" after they ignored the Council Planning Committee's recommendation that two substations should be erected 2.5 metres lower than proposed. "The Board just don't care a fig" commented the Council spokesperson. The Scottish Office acquitted the Board on charges of arrogance and indifference and passed their proposals. If the Nuclear Installations Inspectorate are treated as casually how safe will the station be?

Employment on site has caused a few problems. The contractors have been unable to recruit more than half the apprentices sought, especially locally. Despite high unemployment, it seems that local youth does not want to work there. The employment of locals is still a bone of contention with only 26% of the workforce drawn from East Lothian out of a peak of 3800.



On the 18th April the long-awaited Joint Consultative Committee safety report was presented by its author, Mr J. Dickson of Manchester University, at a public meeting, to a less than rapturous response.

The controversy started even before the meeting; Peter Taylor, who prepared the Political Ecology Research Group safety report (commissioned by the Torness Community Concern - a local residents group) was denied representation on the platform. The incident became more embarrassing when it was learnt that Mr Dickson had only seen the PERG report on completion of his own study, and that Peter Taylor was not approached to comment on the JCC report. The two reports, not surprisingly, have little in common; PERG concentrates on the results of a major accident whilst Dickson's report only discusses the likelihood of such an accident.

The JCC had intended to commission a substantial report using EEC funding but, without government backing no funds were forthcoming. The presented report was the result of only 10 days work. The meeting was

tightly controlled; only questions about the operation of the reactors were permitted, which excluded discussion of the hazards associated with waste transport and reprocessing, or economic and political issues. The report was similarly limited; the effects of low level radiation were omitted, as were 'unplanned' discharges.

Mr Dickson was patronising: "is anyone here a plumber?" and "you've all heard of stainless steel". He concluded that the chances of a catastrophic release of radioactivity were infinitesimal but decently explained that this did not exclude such an eventuality. The report implied that the reactors could not withstand the impact of an aircraft and recommended that overflights be stopped. Assurances have been obtained from the RAF but no approach seemed to have been made to the USAF, odd since one fifth of their airforce is loitering in the UK.

Torness has been provided with protection against earthquakes, "to standards similar to those adopted in recent years for large dams" which, Mr Dickson admitted, were higher than those for earlier reactors. Why? If standards used previously were adequate, why the change; conversely, if higher standards are needed now, how will the old reactors fare?

Mr Dickson admitted that he had not considered deliberate acts of sabotage or war. This is not as spurious as it might appear, the station will operate for between twenty and forty very uncertain years. The dispersal of even the spent fuel, to be stored on site for about 6 months, would render the locality uninhabitable, and in case of war the government intends to shut all nuclear reactors. An indication of both their vulnerability and inherent danger. The JCC report was not well received.

The SSEB sought planning permission for a rail spur onto the site. The District Council were not impressed, "We do not know why they want this", and rejected it. They requested a public inquiry, believing that "the public have a right to know". This is not a position held by the Board; they've approached the Secretary of State for Scotland, asking for the matter to be dealt with quickly and quietly by written submission. The decision rests with the Secretary of State, though the precedents favour the Council. The spur is of course intended for fuel and waste transport.

The Torness AGR is still being assembled, but here at SCRAM we still plan to have it stopped, and with the sweeping Labour Party victories in May there is still a chance.

Jeremy Adler

The Economic Consequences of the Sizewell 'B' Nuclear Power Station; Fothergill, Gudgin & Mason. Dept. Applied Economics, Cambridge University [£2.80].

A dry academic study of the macro-economic effect of the proposed Sizewell 'B' PWR, sponsored by the NUM. The CEBG evaluation is limited to narrow commercial considerations. This study includes the income of the CEBG and its suppliers balance of trade, national income, taxpayers and employment - an approach used on major projects large enough to have a substantial impact on the whole economy.

A comparison is made with a coal-fired station commissioned at the same time, using two sets of assumptions, those of the CEBG and an alternative set. The alternative set assumes a lower (58% rather than 64%) load factor for the PWR, more in line with American experience with reactors of the same design; higher capital charges (+ 44%) and a lower estimate of the rise in coal prices (0.85% pa) - the CEBG assume 1.7% until the year 2000 and then 2.5%. The higher capital charges, again in line with American experience, bring the PWR/coal station ratio to 2.3 rather than the 1.6 used by the CEBG.

The first recommendation is that: "If a new power station is built it should be coal-fired rather than a PWR". On either set of figures the PWR leads to lower levels of employment during both the construction and operating phases and a reduction in national income in all phases (except construction, using the alternative higher capital costings this briefly creates more employment - see table). On the CEBG's figures electricity prices would be lower with a PWR but this is distinctly uncertain and would not occur if the alternative costings prove more accurate. The reduction in unemployment falls preponderantly on the coal industry, losing up to 6500 jobs during the 1997 - 2010 period.

The second recommendation is: "If a

new coal station is built there is a case for building it early, ahead of demand". The CEBG estimate that a new station to meet electricity demand is not required until 1996, but if built early would reduce electricity prices, the advantage coming from the retirement of old inefficient oil burning stations and the export of oil saved. The report's authors are less categorical about their second recommendation since the sums used by early construction could have been available for investment in other areas by the CEBG or in other industries with perhaps greater benefit to the economy.

The study clinically explores the advantages of a PWR over a new coal-fired station, though the CEBG have no interest in such an alternative, they are seeking to revive the dying nuclear construction industry and embark on a "high nuclear background" programme of investment which, by the end of the century, would see 20 PWR's under construction at an annual cost of £2.8 billion (1982 prices), which represents 40% of the current fixed capital investment by the entire UK manufacturing industry.

No comparison is made with an AGR (now being prepared as a 'fall back' option for Sizewell), renewable sources, insulation, CHP or the Severn Tidal Barrage. The AGR is dismissed very briefly and renewables are not considered, sharing the CEBG's view that they are not economically or technically viable. As for insulation, CHP and a Severn Barrage, no mention is found, surely a major omission. The likely cost of decommissioning a PWR is not included in any of the tables and can only serve to make a PWR less attractive.

Under a sane government this report would cleanly and painlessly terminate the 'Sizewell 'B' PWR proposal but a pragmatic economic policy is not our lot and Cambridge Economic Group do not find favour in Maggie's eyes.

Jeremy Adler

Estimated average annual effect of building and operating Sizewell 'B' instead of a new coal-fired station	Construction phase 1984-1991	Operating phase		
		1992-1996	1997-2010	2011-2030
CEBG COSTS				
Electricity prices (% change)	- 0.3	- 0.7	- 0.6	- 0.8
National income (£m, March 1982 prices)	- 10	- 74	- 72	37
Employment	-1500	- 8800	-7400	-3800
ALTERNATIVE COSTS				
Electricity prices (% change)	+ 0.4	+ 0.1	+ 0.1	- 0.1
National income (£m, March 1982 prices)	+ 9	- 127	- 100	- 63
Employment	- 700	-10800	-7600	-3400

Silkwood: the Film

Having expected this film to be an archetypal Hollywood treatment I was pleased to find that it was in fact a moving and tragic account of Karen Silkwood's fight against the Kerr-McGee Corporation. Portrayed by Meryl Streep, Karen was shown to be an ordinary worker in the position of discovering that her employers were faking test results crucial to the operation-

al safety of the reactors that they were supplying components to, and the film then traces her attempts to publicise the facts about Kerr-McGee's dirty dealings, which led to her death in extremely mysterious circumstances.

Thoroughly researched, and despite a disclaimer at the end to avoid further lawsuits from Kerr-McGee, it leaves little



The Unsinkable Aircraft Carrier by Duncan Campbell; Michael Jackson (£6.95 + 60p post)

Traditionally defence/security correspondents feed off tit bits thrown by PR men in press statements, at unattributable briefings and from 'officially sanctioned' leaks. On this rich diet their ability to find original material progressively wanes and their critical faculties atrophy. To maintain the 'PR fix' correspondents learn their sources' rules; kept tame by the lost ability to hunt they are eventually absorbed into the system, the transformation of press release to copy involving merely packaging.

A smaller band of journalists preserve their profession's raison d'être by probing beyond the PR pap and challenging official lines. Duncan Campbell has placed himself in the forefront of this band, a position confirmed by his tenacity in increasing the number of officially acknowledged US bases from 12 to 130.

In the *Unsinkable Aircraft Carrier* American military and surveillance activity is traced from the end of the second world war to the present, and the implications for sovereignty explored. The popular belief that the American military withdrew at the end of the war, only to return during the Berlin crisis, is dispelled. They never left, retaining a naval HQ, airfield and a radio station. The return of the airforce was disguised as goodwill and training visits a temporary matter, a polite fiction. US documents show how cynically this process operated to re-establish a major military presence here without serious public debate, indeed this was deliberately circumvented. US Defence Secretary Forrestal wrote in his diary: "We have the opportunity now of sending these planes, once sent, they could become somewhat of an accepted feature". The book charts the build up of SAC (Strategic Air Command) bombers, starting in 1948, and their departure by 1965 as intercontinental bombers were introduced. They were replaced by medium range tactical and theatre aircraft.

The British government co-operated fully, buying land and providing guards, but seem to have taken little interest in the operational use of the new facilities. The catechism "we will be fully consulted... right to veto use" is recited continuously to ward off sceptics. The US do not acknow-

doubt as to who ultimately caused her death and shows the lengths these people will go to to protect their 'interests'. That this sort of behaviour still continues can only go to show just how gullible people who believe the nuclear way to be clean and safe really are. Go and see the film, but sadly one is deprived of the option of pinching one's self to see if it is a bad dream.

W. Plum

SCRAM Journal June/July '84

ledge the British veto on the use of bases for nuclear purposes, though they are willing to consult, should time allow. Out of office, Churchill appreciated the implications: "do not forget that by creating the American Airforce bases in East Anglia, we are making ourselves the target and perhaps the bulls eye of a Soviet attack".

This analysis has worn well. The British Chiefs of Staff were also unhappy: "the present situation whereby the US could launch atomic bomb attacks on Russia making use of UK bases and facilities (without consultation) is intolerable".

Indeed, the only dual-keyed system based in the UK were the Thor medium range missiles, deployed between 1959 and 1963. The right to veto caused the rift with De Gaulle's France; the displaced forces were mostly shifted to Britain with our more congenial climate!



The lax control of US operations has led to the flaunting of safety and a disregard for the well-being of the natives - shades of Vietnam. At Lakenheath in 1956 an American B47 crashed on landing, setting fire to storage igloos containing unassembled warheads. The danger lay in a conventional explosion dispersing the plutonium, creating a radioactive desert. US families living 2 miles away were evacuated whilst natives living only one mile from the base were not informed, though to be fair, the government was also left ignorant. The story broke in the Omaha World-Herald and was then acknowledged by US authorities. Similarly the activities at Holy Loch would not be permitted if the people living in Dunoon, Sandbank and Kilmun were American citizens; certain refits are undertaken exclusively at foreign bases.

Also covered in the book is the exchange of nuclear material and information - the supply of British plutonium for the US weapons programme in exchange for enriched uranium and tritium. The provision of H-bombs and aircraft for the RAF and the maintenance of nuclear depth bombs at Machrihanish and at St Mawgan by the US for NATO use is also mentioned.

On the intelligence side the use of British facilities by spy planes and even our participation in their operation with mixed-nationality crews and even the transfer of U2's to the RAF are all documented. The famous U2 incident turns out to be one of many.

In conclusion *The Unsinkable Aircraft Carrier* presents a large body of new material in readable form on the integration of the British Isles into the American offence network. The inclusion of an index, not found in earlier editions of *War Plan UK*, allows easy access to the material. The text is replete with figures, tables and pictures though none of the information is presented graphically; bases/personnel/aircraft against time would provide a quick summary of the text - a minor quibble.

As it stands this book should be read, digested and used as a club (metaphorically) on those who believe in dual control and the benefits of the 'special relationship' with the USA. It is surprising that only a few years after Empire we are so blind to the mechanics of colonialism.

Jeremy Adler

In Pursuit of Power - the politics of energy; Martin Spence, Independent Labour Publications. (70p + 20 post-age, from SCRAM).

The UK is exceptionally well-endowed with energy resources - fossil fuels and renewable energy sources. The Tory Government, however, is quite unashamedly pursuing an energy policy geared to the interests of capital, the logic of which to squander or destroy this country's energy resources. Martin Spence describes this depressing situation and sets out to develop an alternative, socialist energy strategy.

Large private multinational companies are now crucially committed to nuclear power. The US Corporations amongst them see the Sizewell PWR as a potential propaganda coup. The Tories plan to continue pit closures on, so-called, 'economic grounds', while concentrating production in a few 'super-pits'. Tory policies aim to shift the balance of electricity generation away from coal and towards nuclear power, in order to destroy the power of the miners. By closing down pits on short-term financial grounds, they are destroying coal's potential as a source of energy for centuries to come.

Tory policy on oil requires that production be kept as high as possible, so as to maximise oil revenues, and thus subsidise the rest of its economic and social programme. Not content with squandering our oil revenues they have begun a programme of capital asset stripping. 51% of BNOC has been sold off and British Gas have been forced to sell their oil interests. Public investments are seen as quick money to subsidise Thatcherite policies, rather than resources with potential for the future.

A Socialist energy strategy would face up to the fact that Britain is changing from a manufacturing to a service economy - energy consumption does not need to grow even if economic growth resumes. Job creation would be an important objective. A sane energy policy would provide socially-useful work on a large scale. Under socialism energy policy would be open to more democratic control, and not monopolised by a handful of multinationals. The country's research and engineering skills could also be used to help develop renewable technologies for the Third World.

The overall message of this pamphlet is to think globally and act locally. Several local authorities have taken up energy conservation or the support of renewable technologies with enthusiasm. We need to persuade more to do the same to try to

limit the havoc the Tories are causing.

I think this is a very important pamphlet, which should be brought to the attention of Labour politicians all over Britain. If there are many Labour Party members still in favour of nuclear power after the ideas in this pamphlet reach a wider audience, I will be very surprised.

Tony Benn, the old enemy of anti-Torness campaigners, says in the foreword that he has

".... come firmly to the conclusion that nuclear power is not acceptable." and that,

"If socialism had never been discovered the issues that we have to face in the energy field would make it necessary now."

Pete Roche

EDINBURGH DRAUGHT PROOFING LTD.



A number of past and present workers from Leith Insulation Project in Edinburgh have recently formed a co-operative - Edinburgh Draughtproofing Ltd.

By forming a co-operative we hope to create our own jobs using our own skills, and to do an important job at a very reasonable cost.

The Department of Energy estimates that draughts add as much as £40 to a household's annual fuel bill. If you have costed double-glazing, you will know how expensive it is - it can take many years before you save your outlay.

Draughtproofing, on the other hand, costs comparatively little, and starts paying for itself much sooner. There is now a range of durable metal and PVC strips which can be nailed or screwed to your windows and doors - not like the sticky foam which soon drops off. We also re-rope sash windows and fit locks.

If you live in the Edinburgh area, why not consider getting your house draughtproofed? We shall start operating from a room in the building shared by SCRAM and the Smiling Sun in the middle of June - so don't wait until next winter to think about it. You can help us and yourselves by getting your draughtproofing done before the winter arrives. We will also sell you the materials if you want to install them yourselves.

CONTACT:- Edinburgh Draughtproofing Ltd., 11A Forth Street.

JUNE

May 30 -
June 7

IRISH WOMEN'S PEACE CAMP, to coincide with Reagan's visit to Ireland. Women interested in taking part should contact; Kathryn, Dublin 774006. Donations are asked for from those unable to attend to meet possible legal and publicity costs.

2nd

SEAD CONFERENCE - 'Arms against Development'. 10 am - 5 pm; Speakers, Workshops, Stalls and Exhibitions. 6.30 - 8.30 pm; Film, 1st Scottish showing of 'The Principal Enemy'. 8.30 - 11.30 pm; Latin American Social Evening. Contact: Anne, 031 667 0120, 29 Nicolson Sq., Edinburgh, EH8 9BX.

6th -
10th

THE OTHER ECONOMIC SUMMIT will take place at the same time and nearly the same place as the meeting at Lancaster House of the heads of state of the seven richest nations. TOES is an attempt at a fresh view of economics. There will be a public rally on June 6, followed by a Conference for a new economics from 7th - 9th of June. Contact: TOES, 42 Warriner Gdns., London SW1 4DU.

9th

CND NATIONAL MARCH & RALLY: RETURN TO SENDER. Timed to coincide with Reagan's visit to the London Economic summit. Assemble Hyde Park 12 noon. **ENCIRCLEMENT OF U.S. EMBASSY.** NVDA Groups will make a nonviolent attempt to encircle the Embassy from 12 - 3 pm. Contact CND, 11 Goodwin St., London. 01 263 0977.

WILLIAM CALDECOTT, prominent paediatrician and Peace campaigner arrives in Scotland. He will be speaking at meetings in Edinburgh and Dundee and will be able to speak in other areas. To arrange a meeting contact; Morna Peoples, Maybank Cottage, Redding Rd., Redding-Muirhead, Falkirk.

EDINBURGH MINERS GALA The theme of this year's gala is Peace. Bruce Kent will be speaking.

THE NUCLEAR WINTER a day conference on the World after Nuclear War and the ensuing Winter and how this information can be used to step up the campaign for Nuclear Disarmament. Organised by Sheffield City Council and Scientists Against Nuclear Arms. Sheffield Town Hall, 10 am - 5 pm. Contact: Jim Coleman, 0742735 357.

10th

SASKATCHEWAN NATIVE PEOPLES Anti-Uranium European tour arrives in UK. The purpose of this tour is to make people aware that European Nuclear programmes are directly responsible for devastating the people and

land of Northern Saskatchewan; particularly in Sweden and Finland because of the large purchase contracts. Participating will be Vye Bouvier, John Graham and possibly Miles Goldstick.

16th

A.T. IN THE 80's - a one day Conference organised by the Open University Alternative Technology Group. Speakers on all aspects of A.T. Contact, Alternative Technology Group Faculty of Technology, Open University, Milton Keynes, MK7 6AA.

SCOTTISH NUCLEAR FREEZE CONVENTION, City Halls, Candleriggs, Glasgow. Major international speakers at the rally from America, Europe and Britain. Educational and Campaigning workshops. Contact: Scottish Nuclear Freeze Campaign, 041-331 2878.

16/17th

EMBRACE THE EARTH. Conference in Manchester on a Green view of peace. Workshops and discussion plus speaker and 'Green social'. Contact; Green Conference, 14 Alexander Rd., Oxford. Oxford 246079.

21st

SUMMER SOLSTICE. Party at Stonehenge.

22/24th

GLASTONBURY CND FESTIVAL. Black Uhuru, Jimmy Cliff, Fela Kuti amongst others. Theatre, Cabaret, Films, Stalls, Workshops, Speakers, Exciting substances. Contact; Worthy Farm, nr Pilton, Shepton Mallet, Somerset or Rob Rae 01 263 0977; 11 Goodwin St., London.

25th

SUN DAY, International Solar Energy day. Ideas for events are Solar tours, open days, fairs or carnivals, exhibitions, fun-runs, proclamations, Solar panel building, and films/talks on renewable energy. Contact; Solar Coalition, 25 Gordon St., Leamington Spa, Warwickshire CV1 1HR.

JULY

GREENHAM COMMON WOMENS DAY. Come to Greenham on the first Saturday in every month and become Visible. Please come and make your own contribution.

1st

RECLAIM CHILLWELL - MASS TRESSPASS at the latest US base. All the necessary details from Reclaim Chillwell, c/o Nottingham CND, Environmental Factshop, 15 Goosegate, Hockley, Nottingham NG1 1FE. 0602-581948.

21/22nd

SCORAIG CND FESTIVAL. Bands, food, beer, etc. Bring tents and goodies. Money, entertainers, and general help are needed beforehand. Contact; Piggott, Scoraig, Dunoon, by Garve, West Ross. 085 483 286.

AUGUST

1/18th

MALVILLE SUPERPHENIX SUMMER PEACE CAMP, organised by the French Peace Campaign. Also 9th International nonviolent march for demilitarisation. Contact; Peace and Justice Centre (Claus) 031 229 0993 or Shūindig. 031 229 7487 or 01 739-6824.

5th

THE VOYAGE OF THE PACIFIC PEACEMAKER.

Film and talk by Josie Reichlin at the University of Leicester.

5th/26th

SUMMER STUDY COURSES at the Centre for Alternative Technology. Organic gardening, energy saving in the home, Renewable energy etc. Accommodation and whole-food vegetarian meals supplied. Contact: Summer Study Courses, Centre for Alternative Technology, Machynlleth, Powys, Wales. 0654 2400.

Little Black Rabbit

Little Black Rabbit has been out and about again this last couple of months with the warm Spring weather. A couple of interesting pieces of information have come to light.

Firstly, following the publicity surrounding the discharges from Windfield/Sellarscale and the alleged higher than average cancer figures around Seascale, Little Black Rabbit was shocked to notice that plutonium and caesium have been found in silts on the east coast of Scotland (and probably England - and even the European continent). She met a couple of doctor friends one evening and asked what they thought of the news. They were, of course, also shocked.

When questioned further the doctors admitted that they would have to see detailed figures and examine medical records before any cancer-link could be proved on the east coast. What about the west coast though? Apparently some public-spirited doctors have attempted to collate information on radioactivity levels and cancer incidence in Strathclyde but they received visits from the Special Branch and were leant on.

Surely, members of the Law Enforcement Agencies are liable to suffer illness as well - in-growing toenails and corns from wearing those big boots for instance - so are they cutting off their toes to spite their laces?

With the miners' strike making the headlines, and the recent announcement from the TUC and the Labour Party about a 50p per member per week surcharge to augment the Strike Fund, Little Black Rabbit was interested to hear about the Construction and Allied Trades Union at Torness. All monies donated by the UCAT members on site are going to the local miners fund to help pay for soup kitchens, seaside outings and the chopping of wood for the elderly and disabled.

It's still ironic, though, that the single greatest gesture that the Torness site workers could make to support the miners would be to stop work indefinitely or 'Benn's Folly', thereby extending the life-time of the mining industry until new coal stations can be ordered.