SCRAM ENERGY BULLETIN

THE SCOTTISH CAMPAIGN TO RESIST THE ATOMIC MENACE, 2 AINSLIE PLACE, EDINBURGH. 031-225 7752

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TORNESS OCCUPIED!

protesters rebuild cottage

On 30th September the date on which the tenant farmers on the Torness site gave up their land to the SSEB, the 15 members of the Torness Alliance moved on. Supported by a group of similar size outwith the site; they immediately began to rebuild the derilict 'Half Moon' cottage, which is seen as a base for the occupation. This move, to non-violent direct action and civil disobedience, was not taken without careful thought and planning. Clearly Mr. Millan, the Secretary of State, has decided to turn a deaf ear to any objections to Torness - whether they come from anyi-nuclear groups or the Labour controlled Lothian Regional Council.

Thus, in the spirit of the Torness declaration, non-violent direct action is the only option available if the power station is to be stopped.

FRIENDLY

Those participating (from all over Britain) carefully planned this action; and of necessity trained in non-violent techniques. This planning has paid off - the local community has rallied round in support and materials for the reconstruction of the cottage have been readily made available; and the local police have been universally friendly.

(continued on page 7)

DECOMMISSIONING

THE HIDDEN PROBLEMS

British nuclear companies have deliberately played down the difficulties involved in scrapping atomic plant.

According to a recent 'Guardian' report the Atomic Energy Authority "is certain that it could demolish a nuclear reactor comprehensively enough to restore the site to agricultural use".

This statement, however, flies in the face of evidence, both from the United States and the A.E.A's own scientists. Their reports claim that outworn plants are highly radioactive and should be left for 100-150 years for the radiation to "cool down" before demolition.

(over)

COSTS HIDDEN

Official statements have also hidden the cost of decommissioning reactors. In its latest annual report the South of Scotland Electricity Board gives the cost of nuclear electricity as 1.227p per unit, a large increase on the 1976/77 figure and only marginally cheaper than electricity generated by coal, oil and gas turbine.

As revealed in the last 'Energy Bulletin' this seemingly precise calculation completely ignores the future cost of decommissioning nuclear reactors.

SCRAM has recalculated the cost of nuclear electricity adding in the SSEB's allocation of 6.7 million pounds per year for future decommissioning. Nuclear power is now seen to be more expensive (see table) than electricity from fossil fuel stations.

EXPENSIVE

Yet even this figure is an underestimate of the true price of nuclear generated electricity. It hides the cost of repairing Hunterston B station (following a seawater leakage last year), direct Governement subsidies and expenditure on reprocessing waste fuel. If these are added then the cost becomes 1.8p per unit, some 30% more expensive than electricity from traditional sources.

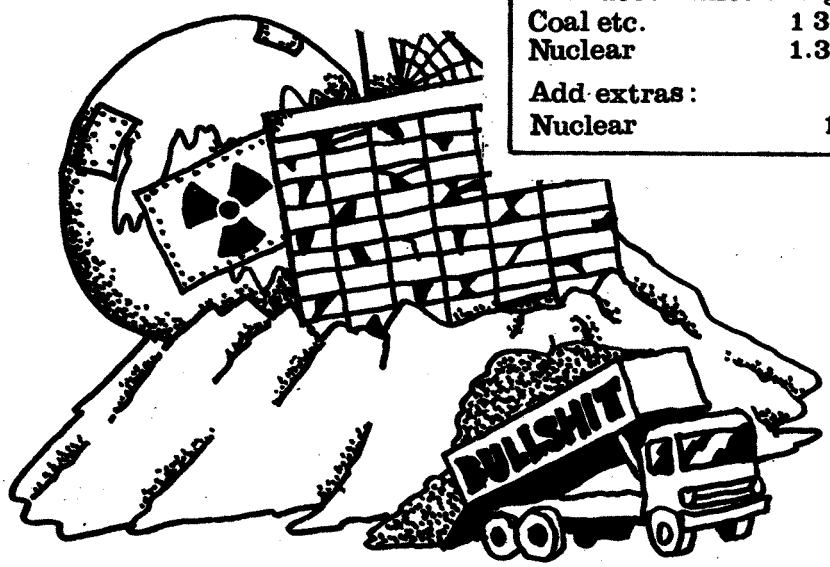
These latest figures are a far cry from predictions in the early 1950s when nuclear stations were first built. Some early publicity went so far as to declare that nuclear energy would become too cheap to meter.

In those heady days designers paid scant attention to the problems of decommissioning nuclear facilities. Only in the past two years have they been fully documented and a paper, published in 1977 by the United Kingdom Atomic Energy Authority admits that "costs have not been discussed since studies in more depth will be required before valid estimates can be derived". The difficulties must be faced very soon - small reactors have already been closed down and the first large commercial stations are now nearing the end of their lifespan.

RADIOACTIVE

A commercial nuclear station has a working life of 20-25 years. During this time its steel cooling pipes are subject to intense radiation from the core which partly transforms the steel into radioactive Cobalt 60. The Cobalt has a half life of 5.2 years and takes some 100-150 years to decay substantially.

S.S.E.B's calculated cost:	
Coal etc.	1.332p
Nuclear	1.227p
Add decommissioning:	
Coal etc.	1 342p
Nuclear	1.365p
Add extras:	
Nuclear	1.8p



This is no simple surface pollution - Cobalt 60 is impregnated into the 1300 tonnes of cooling pipes, making chemical decontamination impossible.

Chemical agents can, as a first stage, be used to scrub down the exposed surfaces, but the reactor must then be decommissioned by one of three methods:

DISMANTLEMENT

Dismantlement involves the total removal of the plant to radioactive waste burial grounds. The land is then restored to its original condition and released for unrestricted use.

The radioactivity is a major hazard for demolition crews and much of the cutting of reactor parts would need to be done by remote-controlled equipment underwater - a costly and time-consuming business.

MOTHBALLING

At the other extreme, mothballing simply entails taking out the fuel and radioactive waste and placing the plant in protective storage. A mothballed station must be constantly guarded to prevent sabotage or vandalism, and undergo annual radiological surveys and periodic maintenance.

ENTOMBMENT

A compromise method is entombment, which consists of sealing the reactor with concrete or steel after all the liquid waste, fuel and surface contamination have been removed. Since the radioactive core would be encased the plant would not not require an elaborate security system. It would, however, need annual surveillance for possible radioactive leaks and periodic maintainance.

The last two methods are merely holding operations, eventually the reactor must be demolished.

The present plan of both British and US plant operators is to maintain and watch over the closed plant for up to 150 years before finally dismantling it.

No comprehensive study of the cost of such an operation has been carried out in Britain, but at a recent press conference Dr Marsham of the UKAEA estimated that decommissioning would cost 8-15% of the capital price of a reactor. For an Advanced Gas Reactor, such as that proposed for Torness, decommissioning would thus cost 60 million pounds at today's prices.

There is good evidence that this may underestimate the difficulties involved. None of the present generation of reactors were designed with decommissioning in mind and the tangle of steel and concrete which makes up the heart of a reactor may require to be dismantled by specialised equipment such as plasma arc cutters.

PROBLEMS

Secondly similar estimates have ignored, or played down, the cost of burying some 5,000 tons of contaminated steel and concrete from each reactor. A recent British report admits that the radioactivity "coupled with the massive bulk of the waste poses major disposal problems."

Finally surveys in the U.S. have consistently understated decommissioning costs. The US Energy Research and Development Administration predicted that it would spend 3 billion dollars over the next 100 years to decommission its plants, yet a private contractor has given an estimate of 4 billion dollars to decommission one installation alone (the Hanford facility, with 9 reactors and ancilliary plant) - excluding disposal of waste.

Nearer home the SSEB has revised its estimates for decommissioning - this year it allocated 6.7 million pounds for future costs, compared with 500,000 pounds for 1976-77. This is the amount omitted from their published comparison with traditionally generated electricity.

Despite the palliative press statements from the UKAEA, nuclear scientists are now seriously concerned about the cost and technical problems of scrapping reactors. It seems certain, though, that monuments to their endeavours, made from radioactive steel and concrete, will be standing around our coastline for many years to come.

Editorial

This issue of the Energy Bulletin is the eighth. That means we've been going for sixteen months. When a new publication enters its second year or asks for subscriptions to be renewed, it is a real test of its popularity and effectiveness.

Those of us who put together the Bulletin have been more than encouraged by the feedback. Most people have resubscribed (many with especial generosity) and most have praised the content and format of the Bulletin. We now regularily sell over 1000 copies, including more than 300 to subscribers.

Praise is not however universal. Our subscribers within the nuclear industry (SSEB, CEGB, UKAEA and BNFL) have not been exactly vocal in their support.

Many of our sympathisers have also criticised us in various ways and hence influenced the Bulletin. As we have said before, all criticism or comments are more than welcome. Similarly any information of nuclear activities in your area or anything of interest that you come across - please let us know - or better still write an article about it yourself! The Bulletin is as much a vehicle for your ideas as for ours.

Now is by no means the time for complacency. It is still an uphill struggle against the nuclear lobby and our resources are still pitiful compared to theirs.

We are committed to halting the construction of Scotland's latest nuclear power station at Torness in East Lothian and to do that we will need all the help we can get and that you can afford to give.

We must extend the Bulletin's readership and it must rest on a secure financial basis. (The current price, for example, does not even cover the cost of production.) So, again, we appeal to you. Please show the Bulletin to your friends, buy extra copies to resell, send in articles or donations. We cannot survive without your practical, financial and moral support.

All correspondence should be addressed to : SCRAM Energy Bulletin, 2a Ainslie Place, Edinburgh 3. Tel: 031 225 7752 (office hours)

ALDERMASTON EXPOSURE

Sir Edward Pochin, of the National Radiological Protection Board (NRPB) - and one of the assessors at the Windsdale Inquiry - is at present carrying out a special Inquiry into the plutonium contamination of 12 workers in the special laundry and a research block at the Atomic Weapons Research Establishment (AWRE) at Aldermaston. Meanwhile, all plutonium handling areas at Aldermaston have been closed by the Ministry of Defence following workers' fears about exposure to radioactive materials.

Besides basic concern about the whole rationale behind the plant - the use of nuclear weapons - there are two areas of serious concern. Firstly, it appears that international recommendations for the protection of nuclear power workers, accepted by the Government in 1968, were not brought into use at Aldermaston until Autumn 1977 - less than a year ago.

PLUTONIUM

Secondly, since these measures are essentially concerned with monitoring individual exposure to plutonium in the air, there must remain the fundamental question of how the levels of plutonium in the air were so high as to lead to such exposure.

With regard to the first problem, at Aldermaston monitoring of plutonium levels has depended upon keeping a check on the level of plutonium in the air. However, this is not necessarily a good measure of the level of plutonium reaching and being absorbed in the lungs. Assessment of the plutonium levels in workers relied upon monthly urine samples; but urine samples are an inadequate method of measuring plutonium contamination in the lungs - because plutonium is relatively insoluble and remains in the lungs (posing a local cancer threat) rather than passing into the body and hence into the urine.

RECYCLING

The solution to the problem lies in the use of a whole body monitor - a machine which has been in routine use at Windscale since 1967 and Dounreay since 1971. The machines are expensive (500,000 pounds), but the cost of one would hardly have caused a dent in Aldermaston's budget. Ironically, much of the cost lies in the provision of metal shielding to screen out background radiation. Modern steel is contaminated by radioactive fallout so it is necessary to use steel produced before 1945 - such as old battleships from Scapa Flow. At least, such use is a good example of the value of recycling! Aldermaston is to receive its own whole body monitoring in 1979; but in January a whole body monitor was borrowed from the NRPB at Harwell and the use of this monitor revealed the excess doses in 12 workers (15% of those tested).

Clearly over-exposure may have been taking place for a number of years: and the workers are right to be concerned.

IMMORALITY

It is to be hoped that the special inquiry fully investigates the situation - both in terms of the causes of exposure and the reasons for the inadequate monitoring of plutonium levels. The military secrecy of the plant may be one reason for past laxness and incompetance; and it may be that this secrecy may result in much of the report being suppressed. The report must be published in full. Furthermore, if the past management of the plant is shown to be at fault, those responsible should be made accountable. Perhaps, however, the problem is more fundamental and lies in the inherent immorality of nuclear weapons development - no matter how 'safely' this is carried out.

GET TO THE POINT! 18th/20th Aug. PEOPLE POWER

carnsore pointless

Is Eire also set for a nuclear future? The government, in a Green Paper "Energy Ireland" published in July, managed with all the usual platitudes and half-truths to fabricate a case for a nuclear power programme. Carnsore Point, in the far southeast corner of the Republic, has been selected as a site for the first station - probably to be a 650 MW PWR.

But present generating capacity of the Electricity Supply Board , (ESB), is already 2400 MW - that's 50% over-capacity. Planned for 1984-85 is a 3,400 MW capacity generated with conventional stations. And now an extra 650 MW??

CARNSORE POINT DEMONSTRATION

Nuclear Power.....? NO

On the weekend 19/20 August there was a huge Anti-nuclear Power Festival on the isolated Carnsore Point, Co. Wexford. Enticed no doubt by the folk bands appearing, 6-7000 people came and listened to alternative views which explained the absolute folly of a nuclear future for Ireland. Speakers pointed to the tremendous potential for development of natural energy sources - plenty of sun, wind and Atlantic waves to supplement the newly discovered coal reserves.

An All Ireland Movement.

An excellent pamphlet - "Nuclear : the impossible gamble", (Pamphlet 30p inc. pp from Cork A.N.G., 40 Paul Street, Cork,Eire.), produced by R.S. puts the Irish situation about the power of the nuclear industry internationally. They have set down a possible structure for an anti-nuclear movement encompassing all 32 countries. It would be a valuable read for us too.

More information from Cork A.N.G. and also from FoE Ireland, Arbutus Road, Dublin.

HEYSHAM PROTEST

On Saturday 16th September about 800 people gathered near the pier at Morecambe in order to demonstrate their opposition to the Heysham AGR being constructed 5 miles down the coast. The organisers, 'Half Life', had encouraged all those attending to make the demonstration a 'fun occasion' - as a consequence, many of those present were dressed in bizarre costumes while the march to Heysham was fronted by a horse and cart and a nuclear dragon.

POLICE GUARD HEYSHAM GATES

After the 5-mile walk, the marchers assembled outside the steel fence of the unfinished Heysham nuclear power station to hear speeches by three brave local councillors, who are opposed to the siting of a second AGR station there. One of these councillors was opposed to the original application in 1969 - a time when opposition to nuclear power was tiny.

Perhaps the one thing which clouded a pleasant day was the unnecessarily heavy police presence. After the pleasant and co-operative attitude of the police previously, it was strange to see a 'Black Maria' with about 30 police hiding down a side street in suburbia. furthermore, was it necessary for the rally at Heysham to be observed by police with binoculars from the (temporarily closed) 'public observation post'?

Harwell rules the waves

QUESTION : When is alternative energy not alteernative ?
ANSWER : When it's run by the Nuclear Industry .

The United States government has allocated a sizeable sum - though tiny compared with the amount for nuclear energy - for solar research. The major recipient of these funds is the Westinghouse Corporation -formerly known for their commercial nuclear reactors.

Nearer home, SCRAM phoned Edinburgh's answer to the Energy Crisis , Dr. Salter of the Wave Power Unit, to ask permission to film a section of our Open Door programme at his new wave tank. We were told that, since the unit receives money from Harwell (the Atomic Energy Research Establishment) it would be "politically unwise" to include film of the wave tank in our programme.

Add to this a research report on Geothermal Energy in the latest ATOM (the limp organ of the UKAEA) and it seems as though the nuclear industry is backing all horses in the race.

TORNESS:

the bad news

For those of you who naively believe that the SSEB were only thinking of building one 1,320 Mw nuclear power station at Torness, prepare yourselves for a nasty surprise - they have in fact got planning permission for "up to 5,280 Mw of capacity" - in other words for 4 nuclear power stations. More electricity, that is, than the simultaneous maximum demand on the whole of the SSEB's system last year - and a nuclear park larger than any other in the UK.

How did such a frightening prospect come about - and how has it escaped people's notice until now?

In 1973, the SSEB applied for permission to build up to 5,280 Mw of nuclear capacity at Torness and asked for permission to build any of four types of reactor (including the Steam Generating Heavy Water Reactor (SGHWR) and one Advanced Gas Cooled Reactor (AGR)).

SUPERFICIAL

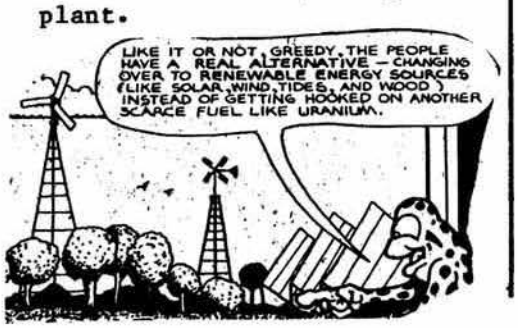
After a very limited and superficial local public inquiry in 1974, the Secretary of State for Scotland in 1975 issued consent to the SSEB specifically for the SGHWR. After subsequent prolonged internal controversy, the nuclear industry finally abandoned the SGHWR and opted for the AGR in January this year.

Then followed a renewed application from the SSEB, and on May 24th Bruce Millan, Secretary of State for Scotland, issued consent for "an Advanced Gas Cooled Reactor Nuclear Station". It was not clear whether this consent referred to the SSEB's renewed application (reportedly for 1,320 Mw) or to the 1973 application.

SCRAM wrote to the Scottish Economic Planning Department asking them to clarify the situation. They eventually replied on 13th September confirming SCRAM's worst fears that the consent issued on May 24th "applies to the construction on the Torness site of generating capacity of up to 5,280 Mw associated with an Advanced Gas Cooled Reactor".

CONNED

This means that the public has no effective say as to whether Torness "B", "C" or "D" should be built. The Secretary of State does have to authorise expenditure and nuclear site licences have to be granted - but these are not processes in which the public plays any important part - indeed they tend to be rubber-stamping procedures. Under planning law there is nothing the public can do to prevent Torness becoming Britain's hugest and most horrifying nuclear complex. The SSEB have been quietly fostering the idea that they only have one station in mind for Torness. The revelation that they in fact have permission for four can only anger people. We are not prepared to be conned into accepting such a massive and dangerous plant.



the good news

On August 22nd, Lothian Regional Council passed a motion calling on the Secretary of State to reconsider his decision not to hold a public inquiry into the proposed nuclear power station at Torness, drawing his attention to the many objections to the proposal and to the lack of real public debate on whether we want a 'wasteful energy-intensive society'.

This motion was proposed by Councillor Donald Gorrie (Liberal) and seconded by William Hardie of the SNP and was passed by 24 votes to 21 on a free vote with the support of most labour councillors and 2 conservatives.

Unfortunately, the Secretary of State has chosen to ignore the elected representatives of the people of the Lothian Region and on 25th September he replied (through his secretary) that he did not consider that the resolution raised any issues to which he had not already given consideration.

Understandably, the Regional Council was not satisfied with such a platitudinous response and the Policy and Resources Committee agreed unanimously that the Secretary of State should now be asked to receive personally an all-party deputation from the Council to discuss the matter.

LOCAL ACTION

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Diana Manders, Secretary of the Lothian and Borders Anti-Nuclear Group reports.

'The Lothian and Borders Anti-Nuclear Group' held an exhibition in Dunbar from September 19-21. It was well attended, both by pro and anti anuclear factions in the town. Apart from an exhibition loaned by SCRAM Southwest and one from the Conservation Society, there was a third one made specially by SCRAM in Edinburgh which was colourful, well-mounted and informative. An anti-nuclear slide show was run continuously.

It was pleasing to see several school groups brought in by their teachers. The group has since been invited to speak at a school in N. Berwick.

Lone SSEB representatives were spotted amongst other pro-Torness visitors. On reading the visitors' book, most people seemed impressed by the scale of the exhibition, considering that it was done on a shoe-string. Unlike the SSEB, we did not invite the press to pre-opening drinks and lunch, nor did we run to potted plants. However, we did offer free cups of tea to everyone who came and ran bric-a-brac stalls as an added incentive.

The three day exhibition culminated in a public meeting. The two films shown were 'Sam Lovejoy's Nuclear War' and Granada TV's "The Nuclear Accident". The meeting was addressed by Mrs. Dorothy Paulin, Chairman of SCRAM SW, who spoke on the dangers of dumping nuclear waste. Altogether, it was a successful venture with a better exhibition than the SSEB - less frills but more facts!

SSEB Dating Service

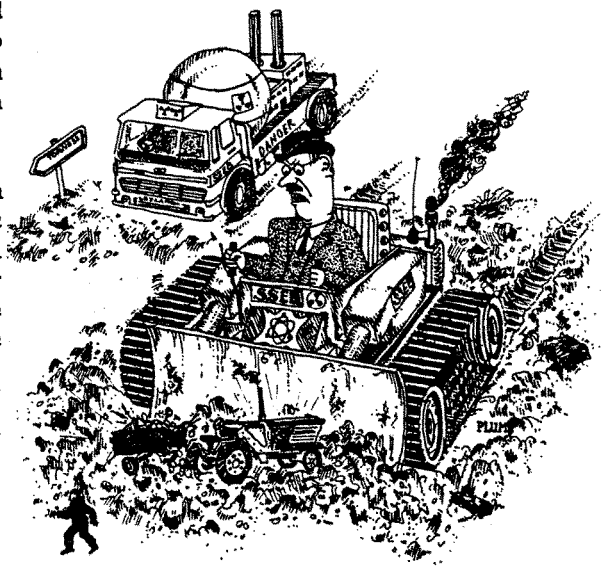
A recent issue of the SSEB News waxed eloquent about the Board's exhibition in Dunbar, ending with:

> "There were several professional grumblers who, when they had exhausted the nuclear subject, turned to electricity bills.... Comments in the book - there were over 1000 - ranged from 'an attractive scheme which should serve the community well' to 'a lot of eyewash'.
>
> One youngster quoted his teacher as saying 'There was more chance of a Mars bar exploding' and a young woman of marriagable age looked forward to 'more interesting talent' among the construction workers."

As a consequence of this success the occupation, originally scheduled to last for a week, will now continue - at least till the end of October.

The occupiers welcome anyone who wishes to join them, stressing only that this is a non-violent campaign. Anyone wishing to jointhe occupation should contact SCRAM first; and we can proveide further details. However, it must be emphasised that anyone joining the occupation should have a tent, warm clothes and finance to supply their own food - for the present at least. The occupiers are particularly anxious for people possessing skills in building or gardening, or alternative technology, to join them; even if for a few days. Furthermore, they have issued an appeal for materials : in particular corrugated iron, timber, cement, blankets, gardening and carpentry tools, tarpaulins, sleeping bags, scarves, gloves, woolly hats, wellington boots, wheelbarrows, fishing lines and vehicles.

In addition, if the occupation is to go on, it is proposed to begin to keep animals such as chickens or goats! If you do have any unused items, (or animals), such as those above, we would be glad to hear from you. This occupation could be the start of something very big - but the present occupiers cannot continue forever on their own. The success of the occupation now depends on how many people join them, and the support of all of us.



THE TORNESS MONSTER-TOGETHER WE CAN STOP IT.

campaigning against nuclear waste

Following our brief resume in the last issue on the waste dumping threat in Scotland, two correspondents describe the campaigns against the UKAEA's plans in Galloway and Northumbria.

At the moment SCRAM (South-West) is anxiously awaiting the decision to be made by Kyle and Carrick District Council on 24 October as to whether UKAEA's planning application for test-borings on Mullwharcher should be refused or not.

On 30 August the Council, contrary to habitual procedure, called a meeting at which those who had sent in objections to the application were allowed to state their cases. The meeting was well attended, well conducted and orderly. All sorts and conditions of people were there lawyers, teachers, scientists, engineers, writers, trade unionists, MPs, mothers, housewives, students, shopkeepers, farmers, OAPs and every shade of politics. There was no undue emotion, no histrionics, just reasoned argument and quiet determination that the answer should be 'No'. The AEA representatives present could have been left in no doubt about the feelings of the inhabitants of the area.

It was a most impressive meeting because 70 different people put 70 different points of view, all with exactly the same conclusion.

A very different meeting was held on 19 September, when the Kyle and Carrick Planning Committee listened to representatives from the UKAEA who elaborated their application for the benefit of the Committee. Members asked questions and the replies were very interesting. For the first time it was admitted that, should the UKAEA, after investigation pronounce Mullwharcher to be a suitable site for dumping, it might well be used as such. It was pointed out that a referendum had revealed that between 80% and 90% of the areas population were against test-boring, let alone dumping, and that, at one of the first meetings arranged by the UKAEA to 'sell' the idea in the area, Dr. Feates had stated that, if the people didn't want it, they wouldn't get it. The representatives' reply was that democracy's power lay in the ballot box. The answer seemed to us very disturbing for, though even now our representatives in Parliament and local authority are mainly of our opinion, what chance have they in a show-down with a determinedly nuclear- oriented government? Inthe event of Kyle& Carrick refusing the application, an appeal being lodged, and a possible Public Inquiry being called for, would the result be another farce, like Windscale? If a 80%-90% indication of will is not enough, what is?

Dorothy Paulin,
Chairman, SCRAM (SW).

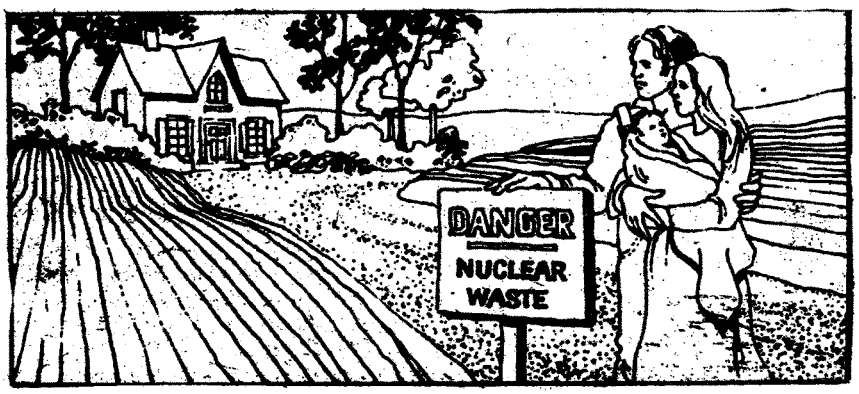
TEST BORINGS IN THE CHEVIOT HILLS - THE STORY SO FAR

Earlier this year the Atomic Energy Authority applied for planning permission to drill test boreholes in two granite areas in the Cheviot Hills. The sites concerned were both within the Northumbria National Park, situated in a wild, inaccessible and particularly beautiful area of the Cheviot Hills. It was proposed to drill several boreholes on each side as part of the nationwide investigation into the suitability of igneous rocks for storing nuclear waste.

The two district councils involved, Alnwick and Berwick, were first consulted about the proposals but the matter was passed to the National Parks Committee of the Northumbria County Council for a decision. To assess the public reaction to the applications, public meetings were held in Rothbury and Wooler, both towns being close to the sites. The turnout at both meetings clearly indicated the public concern over the matter and despite a nicely produced but not so convincing tape-slide show from the UKAEA, the meetings were almost unanimously opposed to the propositions. Grounds for opposition varied greatly, from effect on local amenities to ethical objections to all things nuclear. Noone, however, was prepared to accept the test drillings as being a separate issue from the eventual dumping of waste.

RALLY

It was encouraging to find, from the comments after the UKAEA slide show, that it is becoming much more difficult to pull the wool over the eyes of the public.



Shortly before the National Parks Committee was due to come to its decision, various groups in the Newcastle area got together to express their views. On Saturday June 24 a mass rally of over 500 people took to the streets of Newcastle and later gathered to hear speeches on nuclear waste from MPs and prospective MPs representing the three major political parties. Alan Murray of the National Farmers Union also spoke and the event had very good media coverage reaching both local and national TV.

On the following Monday the National Parks Commiteee voted by 23 to 1 to reject the application. They were not convinced that the drillings were purely for research purposes and felt that a National Park was no place for such investigations anyway.

INQUIRY

Throughout the anti-dumping campaign, protestors have been trying to draw attention to the link between nuclear waste and nuclear power but with limited success. More emphasis will need to be given to this aspect if the opposition to nuclear dumping is not to become myopic about nuclear problems in general.

On September 12th, the UKAEA appealed against the refusal of planning permission, which means a public inquiry. The council is already preparing its case for the inquiry and the various groups objecting to the drilling are planning to co-ordinate as far as possible.

Tactics to be employed at the inquiry will depend on the terms of reference which will hopefully not be restricted to the environmental impact of drilling test boreholes.

Clive Elliot, Friends of the Earth Tyneside

RAINBOW WARRIOR AT TORNESS IN MAY

GREENPEACE LANDED

Since Greenpeace visited the Torness site back in May, the Rainbow Warrior has had an eventful five months, encompassing confrontations with Icelandic and Spanish whaling fleets and with the MV "Gem", the ship used by the UKAEA for sea dumping Britain's nuclear waste.

In July this year the Rainbow Warrior was steaming south to prevent the Spanish whalers from killing whales. Her course took her within a few miles of the dumping zone for atomic waste disposed of under the auspices of the OECD Energy Commission. The UK consignment, 5,500 barrels of "low level" radioactive waste (weighing 2,066 tonnes) was being dumped from the "Gem", the ship operating under licence from the UKAEA.

After radio messages from Greenpeace had been ignored, rubber inflatable dingies were placed under the tipping platforms to physically prevent the operation from going ahead. After a few moments deliberation, two seamen tipped a 600lb. barrel over the side, which smashed and completely wrecked one of the dingies. Fortunately, noone was hurt.

The entire incident was filmed, and at a subsequent press conference in London, Dr J.Lewis, in defending the dumping programme, let it be known that 80Kg of plutonium is dumped annually by the UK alone.

Greenpeace Limited will be ready for the UKAEA's waste dumping antics in the Atlantic in the future, and they hope to play a part in the current occupation at Torness.

Pete Wilkinson, Greenpeace Limited, Colombo Street, Community Centre, Off BlackfriarRoad, London SE1 (Tel. 01-633-0929).

windscale wisdom

Ian Breach : Windscale Fallout, Penguin, 90p.

Penguin have joined the bandwagon and just published a book on the Windscale controversy. With a bit of luck for Ian Breach (who was, incidentally, at Torness), this could be the most widely read book on the subject

The first half gives an extremely useful summary of the Windscale Inquiry in a way which is easy to understand and much more useful to the beginner than, say, the Guardian's book of daily reports.

Breach picks on proliferation as being the single most important issue raised at the Inquiry. The arguments centred around the deficiencies and loopholes in the Non-Proliferation Treaty and the Safeguards System of the International Atomic Energy Agency. On the one hand, there are groups like the Australian Government's Fox Commission, concluding that the defects "... are so serious that existing safeguards may provide only an illusion of protection." On the other hand, British Nuclear Fuels Ltd.(BNFL) say that it has no evidence that any of the material it has exported under contract "has been used for anything other than its declared end use." Breach adds that the Canadians could have said much the same up to the very moment India exploded her first thermocuclear device.

On the issue of civil liberties in a society based on plutonium, BNFL see increased security measures based on the state of society at large, not on the growth of nuclear power. Breach comments "What they all miss is an ecology of argument amongst the more thoughtful objectors which sees the extension of nuclear power and the extension of security powers as two undesirable effects of the same cause: technocentricity".

In a chapter on the history of the international movement against nuclear power, Breach points to the increasing militancy of the environmentalists and local objectors, and cites the South West of Scotland as an example. In Orkney, public feeling is so strong that the SSEB abandoned a programme of prospecting for uranium. On Deeside, where uranium traces have been detected, the SSEB's chairman, Roy Berridge, confessed that he had underestimated the reaction that the proposals would arouse. Breach concludes the chapter by saying that is is unlikely that politicians will challenge the conventional economic wisdom - so unless there is a dramatic upheaval in the West's priorities, te the environmentalist lobby will become increasingly militant and frustrated. The final chapter gives a useful run down of all the important events since the Inquiry, including many allegations from witnesses that Parker has either misrepresented them or totally ignored their evidence.

Breach sees that the failure of the environmentalists to reach the majority of people in Britain can only lead to disillusion, anger, frustration and mistrust. He offers the long-running battle of Narita Airport in Japan as an example of the future debate about nuclear power. As Aldous Huxley says, "Only a large-scale popular movement towards decentralisation and self-help can arrest the present tendency towards statism."

solar scotland

Solar energy research in Scotland is on the increase. At a conference held on September 21st at the University of Strathclyde, details of exciting new solar developments were revealed.

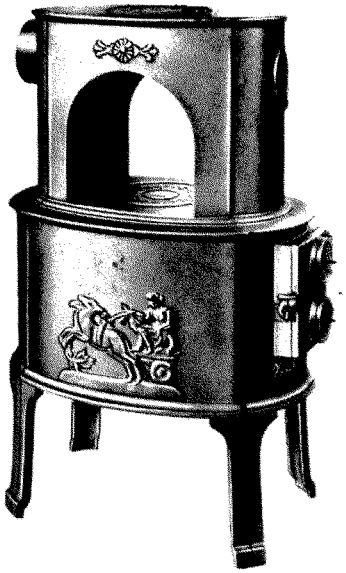
These included a new solar air collector system for space and water heating likely to be more efficient than simple solar water heaters and a 'solar skin' designed to fit existing buildings. The economics of solar heating and the possibility of applying solar power to council houses were also subjects of discussion.

The conference was organised by the Scottish Solar Energy Group, which came together earlier this year to encourage co-operation and the sharing of information between those involved in solar research or related work in Scotland. The Group includes interested people from University departments local authorities, housing associations and the solar technology industry.

The areas of solar research in Scotland are many and varied, including solar panel evaluation, solar crop drying (to reduce energy demand in agriculture), heat storage, photoelectric panels, and solar technology for the Third World.

Further information is available from the Scottish Solar Energy Group, c/o Department of Architecture and Building Science, University of Strathclyde, Glasgow.

Wood Power



Dry wood has a calorific value of about half that of bitumenous coal, and is, among other things, a renewable resource; ie. solar energy converted by photosynthesis into a clean form of storable vegetative matter with a useful heat output of about 3Kw hours per kilogram when burnt in good, airtight, slow-combustion devices. The availability of wood varies, depending upon the location, an average price of 10 pounds per tonne for sawmill waste is to be expected.

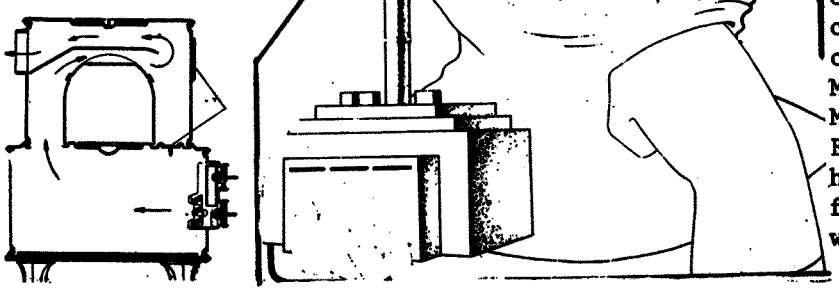
Good dry hardwood limbs may be purchased for about 15 pounds per tonne if bought by the lorry-load. The commercial handling of timber produces waste at all stages, from the felling of the tree, to sawmill waste, which may account for 40% of the whole tree being available for fuel purposes.

CLEAN

City dwellers often ignore the vast amount of wood that is rejected in the form of packing materials, pallets, boxes and demolition timber; all of which is good dry timber with excellent burning properties and may be had for the cost of transport only. The products of combustion in wood are very low in sulphur and chlorine oxide gases and like other fuels, such as oil and coal, which, unless treated by expensive processes, liberate large quantities of these acidic gases to the atmosphere. The ash residue is comprised of mineral salts, when wood is efficiently burnt these salts being an excellent adjunct to garden soil or compost.

Several wood-fuelled appliances have a facility to heat water for domestic purposes which compares favourably, both on economic and ecological grounds, with a 3Kw immersion heater which demands that 10Kw of oil or hard won coal be burnt at the power station, and by a contribution to a simultaneous peak load, may unknowingly contribute to the planning of another Advance Gas Cooled Reactor, as do the heavily advertised electric cookers that the "Scottish housewife preferrs", or so they say.

Stewart McKenna, the author of this thinly disguised free advert helps to run ISIS Energy Conservation Limited, a new, struggling business which sells - among other things - wood-burning stoves. They can be contacted at 50, St Mary's Street, Edinburgh 1. Tel. 031-556-9812.



Coal Power

Douglas Wynn, a lecturer in Sociology at Stirling University has recently become involved in a new campaign to prevent the Kincardine Coal-fired power station being shut down. Here he describes the background to the campaign.

Kincardine Power Station, at 760 MW the third largest coal-fired station in Scotland, is now no longer to be used for base-load generation. Workers fear that the chronic over-capacity of power plant in Scotland, with Inverkip and Boddam shortly to come fully on stream , will lead to the decommissioning of Kincardine by 1990. That date would tie in with the SSEB's intended lead time for their giant pumped storage scheme for Ben Lomond, which would replace Kincardine's present function of "spinning reserve" for peak loads.

Decommissioning of Kincardine would also make the case for actually building Torness somewhat more respectable.

REFURBISHED

A campaign to have Kincardine refurbished with modern coal-fired plant is being mounted by miners and power workers in the area. Thus far the campaign has the support of the three local MPs, Central and Fife Regions and the STUC amongst others. It is estimated that 1,000 jobs would be lost if the station closes. The first objective of the campaign committee is to present its case directly to Gregor McKenzie, the Scottish Office Minister responsible for the Electricity Boards, but they have no illusions that the fight will be easy or quickly won.

NICE ONE ERIC

Eric Barnes has made quite a name for himself in Caithness. The Caithness Courier recently disclosed, in a front page exclusive, that Eric has discovered a remarkable fact. Solar Energy, he reveals, can actually cut down fuel bills!

Eric, an engineer and keen D.I.Y. enthusiast, has spent a lot of time and, he reckons, about 100 pounds in making his own solar panel, which he has plumbed into his home's hot water system. He estimates an annual saving of "at least 100 pounds" in his fuel bills, and points out that it is not just strong sunlight that heats the water - but a typical Caithness clear sky is really all that is needed.

Eric, by the way, works for the UK Atomic Energy Authority at their Dounreay Nuclear Establishment. Well done, Eric.

IN THIS ISSUE

SCRAM ON T.V.

Over a year ago SCRAM applied for the chance to produce its own 30 minute TV programme on the BBC's Open Door series. We have recently been selected to make a programme for screening on November 2nd this year.

Obviously, we are very grateful for the opportunity to explain our opposition to nuclear power and to urge Open Door's estimated half a million viewers to join us. The film, after it has been televised, will also be available from SCRAM for any group that wants to show it.

Meanwhile, make sure you tune in to BBC2 late on Thursday 2nd November.

SUBSCRIBE NOW!

I wish to subscribe to SCRAM Energy Bulletin for 1 year (6 issues).

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I enclose cheque/PO for 1.00pound.
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Please send thia form, subscription fee (plus any donations!) to SCRAM, 2a Ainslie Place, Edinburgh 3. Thanks.

MOSS DROSS

Robert Moss, the founder member of the National Association for Freedom, has discovered a new conspiracy - the anti-nuclear movement. In a recent article in the Daily Telegraph, with a logic akin to that of Alice in Wonderland, he tries to link SCRAM, the Shah of Iran, the American Section of the Fourth International and the Soviet Union in a fantastic international plot to overthrow capitalism.

"In Britain", says Moss, "all the major Trotskyite groups are opposed to nuclear energy. The current focus for the anti-nuclear campaign is in Scotland and the north of England, where recently created organisations like the Scottish Network to Resist the Nuclear Menace (SCRAM) (Sic!) are active."

He goes on to attack WISE, the European anti-nuclear magazine, and its sinister links with the Institute for Policy Studies in Washington, the Transnational Institute in Amsterdam, Joshua Nkomo's Zimbabwe guerilla movement in Rhodesia and the International Mobilisation for Survival. And as if all this wasn't enough, we are then informed that, "WISE is run by an eight man council, which includes a Mr Czech Conroy in London." Obviously a guilty man with a name like that! (Czech Conroy in fact works as energy campaigner for Friends of the Earth Ltd in London).

Apparently we are all being used in this way to help the Soviet Union achieve its "long term strategy aimed at depriving the West of automatic access to its fuel." So now we know.

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