SCRAM ENERGY BULLETIN

NUCLEAR POWER? NO THANKS

15p

No.13 August/September 1979

there is no future with

NUCLEAR POWER

they say it's cheap - IT ISN'T

they say it's safe - IT ISN'T

they say there are no alternatives

THERE ARE!

this issue

- WAVE POWER EXAMINED
- AEA DEPUTY CALLS FOR COMBINED HEAT AND POWER
- PEAT - AN OLD NEW ENERGY HOPE
- SOLAR ENERGY - BRITAIN LAGS BEHIND
- TRADE UNIONS - MOVEMENT AT LAST
- WOMEN - NEW DANGERS FROM LOW-LEVEL RADIATION
- PLUS FULL NEWS ROUNDUP FROM HOME AND ABROAD

'SCRAM' MEANS TO SHUT DOWN A NUCLEAR REACTOR

(Photo P. Lennard).

The petition arrives at Whitehall. Bicycles, they discover, aren't allowed in Downing St.

A petition calling for a halt to Torness, with 20,000 signatures on it, was presented to the Scottish Office in Whitehall on July 4th. The petition was handed over to George Younger by a member of the South London Anti-Nuclear Group.

The 20,000 signatures were the result of just 5 days collecting in the Lothian Region, by SCRAM and the Lothian and Borders Anti-Nuclear Group. It was taken from Edinburgh to London by bicycle relay.

A letter from SCRAM was also handed in, pointing out to Mr. Younger that the public had been excluded from the nuclear decision making process as a result of the public enquiry proceedure. The Torness enquiry, the letter said, demonstrated that present planning proceedures are inadequate since they disallow a full appraisal of **all** the relevant facts.

IS YOUR M.P. WORKING FOR YOU?

An early day motion tabled in the House of Commons on July 3rd 1979 noted the Torness Petition, S..S.E.B. overcapacity, plus public concern and asked the Governmnet to review the project.

It was drafted by Robin Cook (Edinburgh Central), Michael Ancram (Edinburgh South), John Hume Robertson (Berwick and East Lothian) and Gordon Wilson (Dundee East). The Motions signed supporters are Russell Johnstone (Inverness), Ian Lang (Galloway) George Foulkes (South Ayreshire), Donald Stewart (Western Isles), Alan Beith (Berwick on Tweed), Ron Brown (Leith), John Maxton (Glasgow Cathcart), Denis Canavan (West Stirlingshire), David Marshall (Glasgow Shettleston),Martin O'Neil (Clackmannan & East Stirlingshire).

If any of these good men is your M.P. do write and congratulate him on his support for the motion so that he will be encouraged to further efforts towards a safe and sane energy policy.

It is for the government to decide whether or not the motion should be debated, and as yet no time has been set aside for it.

If your M.P. did not support the motion and you wish s/he had why not write and ask them 'Why Not?'

P.W.R. RISKS

The British Nuclear Installations Inspectorate would not be worried if the probability of the type of accident that occurred at Three Mile Island were 1 in 100 per reactor year, John Dunster, director of nuclear safety told conference delegates in Hamburg recently. As far as risk to the public was concerned, 1 in 100 per reactor year "is not unreasonable," he added. ('Engineer' 17.5.79)

It seems Mr Dunster's assertions will soon be put to the test - the Central Electricity Generatin Board have just announced their intention to build a Pressurised Water Reactor (PWR) at Druridge Bay in Northumberland. The C.E.G.B. spokesman hastened to add that that station would not be a Babcock & Wilcox (Three Mile Island) design. (B&W will only be alloted to a minor (?) state of 25% in the Torness and Heysham boilerwork).

France

LETTER FROM FRANCE

The French press were quick to report a ' commando raid' against a team surveying the proposed site of a PWR at Nogent-sur-Seine; sixty miles from Paris. Two security guards were locked in their office while thirty demonstrators damaged water pumps, put cement into petrol tanks and took away or burnt important documents. By the time the police arrived, the commandos were already leaving. Only the 'ecological' papers reported what had actually taken place and why.

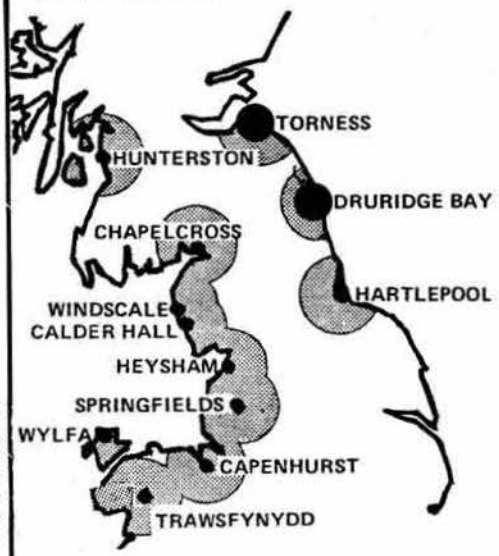
In fact sixty people had been at the demonstration, called to protest against the illegal surveying of land. The EDF (SSEB's french cousin) has not yet obtained compulsory purchase orders and the farmers have refused them permission. The EDF had however been granted permission from the Prefecture, the regionally appointed representatives of central government. Wherther this is legal is being challenged by the local Friends of the Earth; especially since the result of a local enquiry here during February and March has yet to be announced. But as with Torness, there is no expectation that the government appointed judges would challenge the accepted policy.

Similarly, it has been possible to have an anti-nuclear festival on the site during the appropriate technology (particularly solar panels) and 3,000 people attended. Although there were few locals present, opinion in the area has changed a lot since Harrisburg. The Friends of the Earth are keen not to lose support by being seen as 'vandals' and the commando raid of June 17th was as much a surprise to them as to everyone else.

SCRAM

Our campaign will take a big step forward with the March and Rally in Edinburgh on 15th September. We are planning to mount a major exhibition on Conservation, Combined-Heat-and-Power and Coal at the rally itself. Only by juxtaposing the hazardous, costly and uncessary nuclear menace with the real alternatives that exist NOW can we convince the public and their elected representatives of the need to stop nuclear power.

Over the last three issues more than twenty people have contributed articles or reviews to SCRAM. We want to encourage this diversity and invite you or your group to send us short news pieces, reviews, cartoons and cuttings; criticisms too - to make it better.



Druridge Bay NO WAY!

On a pleasant stretch of Northumbland coastline, between Amble and Ashington, lies Druridge Bay, its rolling dunes offering abreath of life to the industrial centres on Tyneside, only 18 miles way. It is in this amenity area that the CEGB are planning to build a nuclear power station, and it was there that a small SCRAM contingent joined the locals' antinuclear rally on July 7th. The rally was organised by a local community group, the Druridge Bay Association, and, despite an obvious lack of publicity outside the area, drew over 3,000 people in the course of the afternoon.

It was difficult not to draw parallels with earlier Torness rallies, and it seems clear that the CEGB are going to have a real fight on their hands, since as yet the proposal is at a very early stage. No formal application had yet been lodged for planning approval, and already one of the local councillors was prepared to speak out, from the platform, against this "desecration". On a more pragmatic note, Dennis Murphy speaking on behalf of the Northumberland N.U.M. pointed to the idiocy of building a nuclear station on top of the largest undersea coal-mining complex in Europe. His area branch are fully supporting the Association, and a jointly-organised petition is currently at the 25,000 signature mark.

The SCRAM message of solidarity carried a warning about the inadequacy of public enquiry procedure and the lessons to be learned from Torness. This was followed by the offer of practical support from Friends of the Earth Tyneside, whose speaker, Don Kent, stolidly pointed out that a nuclear programme made a mockery of many of the Tory Party's own stated aims.

It was a successful rally, and encouraging to see a group of locals, with their feet firmly on the ground, prepared to look after their own patch. But they'll need all the support they can get!

For Further information, contact: Mrs Susan Jordan, The Old Smithy, Widdrington, Morpeth, Northumberland. Tel: Red Row 780 674.

Insulation? ...Inaction!

At a time when the energy crisis has become a politicians nightmare, many good words.- and a few apparent good deeds - have been devoted to the encouragement of home insulation. The previous government, amidst much trumpeting, last year introduced the Home Insulation Act, which enabled households to acquire grants of £50 or 66% (whichever is less) to help with the costof loft insulation. This was seen as a major part of their campaign to cut the nation's energy bill. The new government has committed itself to a "vigorous" insulation programme, but has yet to actually do anything.

UNDERSPENDING ON INSULATION

The emphasis placed on the importance of home insulation in any strategy to save energy is a correct one. According to the Building Research Establishment about 29% of the total UK primary energy is used in our houses. Of that, as much as 64% is used for space heating. Bearing in mind the fact that 6½ million houses in the UK are completely uninsulated (almost half of all the houses with accessible lofts), it becomes clear the vital role an effective insulation programme could play. If, or example, we reduced the space heating demand of houses by a modest 10%, we would save almost 2% of the nation's annual energy consumption.

In this context, it is all the more disturbing to realise the extent to which the insulation programme has failed to come to grips with our huge and expensive legacy of uninsulated homes. Figures on the take-up of insulation grants up to March 31st this year recently released by the Scottish Office confirm critics' worst fears. In a written answer to a parliamentary question by SNP MP Gordon Wilson, the government revealed that a mere 33% of the grant allocation was used in the private sector, something less than £½ million was actually spent. In spite of this, the government have increased the allocation for the coming year to £2.5 million.

A meagre 1% of Scotland's private housing and less than 5% of its public housing have actually been insulated as a result of the government programme.

The average figures conceal wide local variations. Some local authorities, including Perth and Kinross, Inverclyde, Nairn, Tweeddale and Nithsdale insulated precisely none of their houses and managed to record a nil percentage take-up. Others, such as Sutherland, Stewartry, Dumbarton, Lanark and East Kilbridge achieved a 100% take-up. Edinburgh District Council, not noted for its imaginative approach to public housing managed to insulate the grand total of 7 of its houses. In the Private sector, the take-up varied from over 50% in a few areas (West Lothian, Cunninghame, Monklands) to a mere 4% in Skye and Lochalsh where only 5 houses were insulated under the scheme.

Why has there been such a dismal response to a measure for which everyone expresses enthusiasm? There are several reasons. In the private sector, the complaint that the initial publicity for the scheme has not been sustained carries some weight. There is no doubt that most people are simply unaware of the existence of grant aid for insulation. In addition, there is the fact that anyone who already has a bare minimum of insulation in only a part of their loft is ineligible for aid.

Pensioners and disabled people - those most in need of warmth and well-insulated homes - are likely to have been deterred by the fact that employing a contractor to fit the insulation material is liable to cost over £100 more than a do-it-your-self job. In the public sector, it is harder to isolate reasons for the substantial underspending. Some local authorities may just be slow off the mark - others seem organisationally incapable of properly managing their housing stock. Clearly, most have not accorded energy saving the priority it deserves nor have they fully appreciated the benefits insulation can bring their tenants in terms of lower fuel bills, warmer houses and a decreased likelihood of dampness and condensation.

There are a number of obvious reforms which could help improve the effectiveness of the existing programme. Central and local government should organise a large-scale publicity campaign, including television advertisement, to make everyone aware of the existence of grants. The restrictive conditions for qualifying for the grants should be abolished, and the elderly and disabled and those on low income ought to be able to receive 100% grants. Other measures could broaden the scope of the programme and help it begin to make real progress. Draught-proofing, as the most effective and easiest method of insulation could become grant-aided. The minimum 80mm thickness for loft insulation fibre could be increased to at least 100mm. The statutory "minimum tolerable standard" could be redefined to take account of the "heatability" of each house.

These are the kind of thoughts that should be filling the head of Mrs Thatcher and her advisors. She would do well to abandon her newly-found nuclear infatuation and concentrate on making the government's gesture to energy conservation work.

The Electricity Council have just announced an 8% increase in prices in September. Electricity bills this winter will be nearly 20% higher than last winter.

The Scottish Fuel Poverty Action Group have denounced this lastest round of increases, the second in 6 months. "Poor families trapped in all-electric houses will be increasingly forced to run up debts and face disconnections." In this article, one of their members investigates SSEB policy on disconnections.

DISCONNECT

Building Torness is not the only occupation for which the South of Scotland Electricity Board reaps considerable criticism. Social workers and the increasingly vocal fuel poverty lobby have been pointing accusing fingers at the beleaguered officials of Cathcart House, as the evidence of a harsh and inhumane attitude and practice towards consumers who run into debt builds up.

In dealing with customers in debt, the SSEB, like the Gas Boards, is meant to follow the "Code of Practice on Hardship" which was evolved as a response to the increase in disconnection of supply which had occured since 1973 - largely, it must be assumed, as a result of escalating prices and declining real incomes. The Code was published in a simplified form in November 1978 and it basically allows the Fuel Boards to cut off supply to anyone liable for payment except all-pensioner households between October 1st and March 31st.(presumably it never gets cold in the rest of the year!). In spite of the SSEB's claim that they "carry out the letter and the spirit of the Code" , cases are increasingly coming to light where they are patently ignoring it. Such as the case of a 79 year old man who was cut off for refusing to pay a £111 bill incurred by the District Council in the course of repairing his house while the man lived elsewhere. Or the case of a man in his early sixties on invalidity benefit who was cut off for a bill of only £23.84.

Lately the SSEB have become very sensitive to criticism of their disconnection policy - to the extent that, for reasons best know to themselves, they circulated a propaganda paper to all their staff sho handle disconnections to sign. The circular - oddly headed "It's not all cut and dried"attemptsi by means of the selective of statistics and flannel to "explain" their attitude to disconnections. It does not say what one member of staff said privately - that "some of the staff do disregard the Code of Practice. They seem to think that everyone who doesn't pay their bill is a scrounger". It does not point out that the rate of disconnections by the SSEB is almost twice the English average for electricity and nearly seven times the rate for Scottish Gas (see table).

1978/9 Disconnections as % of total consumers

	England and Wales	Scotland
Gas	0.35%	0.14%
Electricity	0.53%	0.94%

The reasons for this discrepancy are unclear but they must include the fact that Scotland has a higher proportion of all-electric houses and high levels of unemployment. It is also difficult to resist the conclusion that the SSEB take an unusually hard line. Those experienced in dealing with them will not find this a surprising suggestion.

The Scottish Fuel Poverty Action Group, in acute awareness of this background, suggest two main courses of action to improve the situation. For the short term the Code of Practice should be strengthened and given some mandatory teeth. Its advisory nature allows for arbitrary and inhumane interpretations. The practically absolute discretion to disconnect should be abolished. In the longer term the notion of a Code of Practice needs to be replaced by a "Fuel Users Charter" which sets out the rights and obligations of both Fuel Board and fuel user in a kind of contract of equals. The right to a warm home - a right which is receding for many as fuel prices rocket - is a principle which now more than ever needs to be firmly established.

HOME NEWS —

Women and Radiation

Women are twice as likely as men to develop cancer after radiation, and there is no threshold beneath which low-level radiation is safe. This is the finding of a report published in June by the US Academy of Sciences.

The committee was restating its findings of 1972. At that time it was told by the US government to reconsider its findings. But fuller research has merely confirmed its earlier hypothesis.

The report says that ionising radiation has an effect on the body even at very low levels, and this is directly proportional to the dose received.

Women are twice as likely as men to contract cancer from radiation because they are more prone to breast and thyroid cancer. And these cancers are particularly liable to being induced by radiation.

The health and safety officer for ASTMS trade union has said they are 'very concerned' by the report. And the GMWU safety officer has called for the minimum permitted radiation exposure level to be reduced by 5 times.

More radioactivity was released into the atmosphere after a fire at Windscale on July 16th. Workers were evacuated, and test results on 6 workers are being 'further evaluated.'

Residents of Girvan are planned a massive fight against proposals for a nuclear power station at Chapel Donan in Ayrshire. The South of Scotland Electricity Board have said this site is 'one which could be used', and have bought 250 acres there.

But South Carrick District Councillor, Struan Stevenson, has promised 'the protests this will stir up will make those at Torness seem like Noddy in Toyland'.

Meanwhile the SSEB have said that there are no plans at the moment for any nukes in Fife, although they have carried out feasibility studies at three sites. The SSEB's director told East Fife MP Barry Henderson, that they were looking at long term possibilities.

A public enquiry is to be held into the construction of a nuclear power station at Portskewett, near the River Severn by Chepstow. (Details see last SCRAM).

BNFL is looking for a new route to fly plutonium from Windscale to the Fast Breeder reactor at Dounreay, near Thurso, after Carlisle airport closes. British Nuclear Fuels is authorised a dozen or so loads a year, and are likely to choose Manchester or Newcastle airports, rather than reverting to road or rail.

The Secretary of State for Energy has given the Central Electricity Generating Board the go-ahead to spend £900 million on second AGR at Heysham in Lancashire.

The UK Atomic Energy Authority currently employ 512 Special Constables, at a cost in 1978/9 of £2.8 million.

The SSEB and Department of Energy have designed a giant proto-type windmill to generate power, and are expected to announce a projected site for it soon.

The windmill will be 243 feet high and produce 4 MW. A public enquiry will probably be held before work is started.

Members of the 11 person official Japanese Peace delegation were harassed by nuclear security police outside Chapelcross nuclear power station, and had the film confiscated from their camera.

Three members of the group - one a survivor from Hiroshima - with the chairperson of Dumfries CND were taking photos of each other outside the fenced off site when the incident occured.

The film was confiscated even though the same view of the station can be bought as a scenic (sic) postcard in local newsagents.

The incident may be followed up by Robin Cook MP and the Scottish Council for Civil Liberties.

The SSEB have announced that the cost of repairing Hunterston B number four reactor will be £14 million. The reactor will have been shut down for two years following the seawater leak. This sum does not include the wages bill for the idle reactor staff or the costs of finding power elsewhere from alternative sources.

Total costs of the incident will be at least £50m.

People who eat fish are running an increased risk of cancer because of radioactive discharges into the sea at Windscale, according to a report being studied by Cumbria County Council.

The report was prepared by Professor John Fremlin of Birmingham University, who gave evidence for the AEA at the Windscale enquiry.

The report suggests that between 3 and 10 people will die over the next twenty years directly because of eating contaminated fish.

But a leading epidemologist, Dr. Alice Stewart, also of Birmingham, has challenged the basis for his findings. She believes the risk to be up to 20 times greater than he estimates.

She told SCRAM "All you do by scattering the dose freely over a large area is make it more difficult to detect." The professors ideas, she says, do not take into account the effects of single cell radiation. "Even and X-ray dose can harm an unborn child", she said.

Meanwhile, BNFL's annual report shows that radioactive discharges into the sea in 1977 increased by 3% over 1976 levels.

Falling down

Workers at Dungeness nuclear power station were evacuated from the reactor on June 19th following a leak of radioactive gas, and it has now been discovered that the roof is in danger of collapse.

Number 2 reactor was being started up after a 10 month shut-down when the gas, Argon-41, was detected escaping from an inspection man-hole cover. It has now been shut down again for a detailed investigation.

But the main concern there at the moment is the discovery of cracks in the concrete supports of the roof of the gas circulatory building. One beam has had to be propped up already, and the other 4 will get temporary supports as soon as possible.

The beams are thought to have shifted about half an inch because, the CEGB says, the reactor was shut down and therefore cooler than usual over the winter.

There are now grave doubts about its lifespan. It had been planned to last another 15 years. Output at all such Magnox stations has already been reduced by 10% in an attempt to prolong their lives after previous faults. Dungeness A's output - if it worked - would currently be 410 megawatts (compared to coal fired Battersea power station's prime of 500 MW).

The cracks that have appeared are similar to those which have led to the collapse or rebuilding of several buildings such as schools and gymnasia in recent years.

Meanwhile, reactor 1 is still closed down for inspection following the discovery of micro-cracking in the primary cooling system, as reported in the last issue. And Dungeness B, still being built alongside it is currently running 10 years late.

Dungenness A power station

Three of the four plutonium workshops at Aldermarston atomic weapons establishment have been closed down for a year because of staff shortages after the contamination of workers there, it was disclosed three weeks ago.

The director admitted this was because of low pay and 'the radiation problem'.

Lothian Region's archaeologist has been refused permission to enter the site at Torness to photograph a bronze age burial mound discovered there. The area is covered in the remains of old settlements - hundreds of fourteenth century coins have also been just found there - but it seems unlikely that the SSEB will allow anyone in to see them before the bulldozers destroy them. Meanwhile at the site of the proposed work-camp for 500 + single men at Innerwick a hoard of very rare silver groats was uncovered early in July Mr. G. Gould of the contractors, Wight Civil Engineering Ltd., denied all knowledge of the find and so the bulldozers bulldoze on.

INTERNATIONAL NEWS —

Think again

A top international think-tank, the Bellerive Group, has criticised the nuclear lobby for its forecasts of energy demand and use, neglect of conservation measures and for promoting electricity for inefficient uses, like heating.

The signatories to the statement include the former director of scientific services at the Atomic Energy Commission in Paris, Dr. Lew Kowarski, and Victor Weisskopf, head of physics at MIT, and former director general of the European Centre for Nuclear Research, at Geneva.

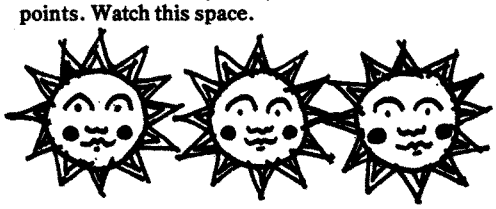
They say the lobbyists' case rest on assumptions 'subjected to severe and reasoned criticism' which has not been answered by either industry or government.

"No free society can be governed without both trust and consent. Once trust evaporates government must be carried on only by increasing coercion and, at the end of that road, lies the graveyard of once free societies'.

They go on to ask what the case is for reprocessing plants, "given the exceptional dangers of plutonium, especially in terms of proliferation of nuclear weapons as well as of national security, the survival of civil liberties and of democratic societies".

Failure to answer critical questions, it says, will make it clear the industry has no case.

The nuclear lobby are yet to answer to these points. Watch this space.



The International Solar Energy Congress was held at the start of June in Atlanta, Georgia. Over 500 papers were presented on all aspects of solar energy, with comparisons of the developments in most major countris.

Compared to other countries, the UK could only manage a very sorry showing. Our £6 million to be spent on solar energy research over 4 years did not compare at all well with Germany's £12½ million each year, or America's £69 million a year (before Carter's recent energy announcement).

And we can't plead our climate as an excuse for not investing the money. A recent EEC report identified the NW coastal areas, including Scotland, as one of the most promising areas in Europe for solar heating. And Sweden, further north than the UK, has identified solar energy in its many forms as a major source of power in the near future, and is now spending £7½ million per year on solar research. They intend to be able to use the conservation techniques they are learning within 10 years.

Sweden offers an interest-free loan for the investment cost of installing solar power into virtually any type of building, with planning grants and general help and guidance.

While Britain merely increases the rateable value of solar houses.

URENCO - A Pakistan engineer, Dr. Kahn, has got hold of the blueprints of the uranium enrichment, system used by the multinational organisation URENCO in its plants in the Netherlands and England.

Their technique to enrich uranium for nuclear power plants can also be used for making hydrogen bombs. Pakistan has made no secret of its intentions to develop an 'Islamic' atomic bomb against India.

Dutch authorities have set up a full enquiry into the leak, and all three governments have asked URENCO to review their security arrangements.

Back to the point

Ireland - Carnsore Point, Co. Wexford will be the site of an all-Ireland anti-nuclear festival on August 18-20th. Although planning permission for Ireland's first nuclear power station (at Carnsore) has not yet been given, the energy minister made his intentions clear when he commented 'Construction work cannot begin until after the public enquiry'.

Contact, due to the Eire postal strike, has been Belfast Anti-Nuclear Group, c/o Just Books, 7 Winetavern St., Belfast 1.

Australia - Two engineers have discovered a possible new source of energy - high-speed winds in the jet stream 30,000 feet above earth.

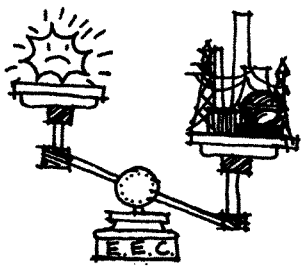
They say this energy could be tapped by gliders tethered like kites in the jet stream. Each glider would contain 4 turbines generating electricity to generate back to earth via the tethering cable.

The project, at Sydney University, has only been going for a year and is obviously only in a very basic stage. But they plan now to build a proto-type for tests in wind tunnels and for flying at altitudes.

Spain - Commissioner Ignacio Astiz of the Ministry of Industry and Energy in Navarra province was kidnapped for 5 days by the organisation ETA politico-militar.

The group say this was a response to the aggression of the government during an anti-nuclear demonstration in which a demonstrator was shot dead by police.

Astiz was questionned about the government's nuclear and industrial plans for the area before being released.



The EEC is making a large amount of money available to reseach into 'alternative' energy sources.

The biggest grant is to the UK AEA for their Joint European Torus project at Oxford. They get £125 million over four years to research fusion reactions.

Nine UK projects are to be offered a total of £14 million for conservation projects.

And £2.1 million will be spent through the 7 member states on reseach into solar energy.

Taylor Woodrow Homes Ltd., are to build 5 solar houses and monitor energy savings over 40 months. The EEC is expected to fund 40% of the £300,000 survey.

In brief:

Ireland - Irish TGWU vice-president, John Carroll, has said his union will black the building of any nuclear power station there. Speaking at a conference in Bundoran, he said he anticipated the support of the entire trade union movement in this.

Meantime the EEC director-general for energy has told the Irish Energy Minister that if Ireland decides not to go nuclear it would be 'sacrificing economic advantages'.

Holland - Workers at Hoogevens steelplant in June refused to handle radioactive waste being brought by train from Sweden for dumping in the Atlantic. This is because last year, cannisters they were handling which were supposed to withstand pressure at 4,000 metres under the sea, were leaking at normal atmospheric pressure. The train was then divereted to Zeebrugge to join Dutch Nuclear waste.

At Ijmuiden in Holland, 1,500 people demonstrated against the shipment of waste there, and 80 demonstrators blocked the gates at the research reactor at Petten, where the waste was to be coming from. Riot police eventually cleared the gates, but another sit-down at Ijmuiden prevented the lorries from reaching the ships until the riot squad intervened again.

The waste ship eventually left, several days late, after Greenpeace members in rubber dinghies had chained the ship's propellors together. Sailors used water hoses to fill their boats, however, and they had to retreat while frogmen removed the chains.

U:S.A. - Honeywell Inc. of Minneapolis is equipping its offices with a solar energy system. It will provide all the hot water needed for the 8 storey building, 53% of the annual heat, and 84% of the annual cooling needed, and will be the biggest scheme of its kind in the USA.

Arguments were heard before the US Court of Appeals on June 19th in the case of Jeannine Honicker vs. the Nuclear Regulatory Commission and the USA:

Jeannine Honicker, a Nashville, Tennessee businesswoman, is suing the government to shut down all nuclear power plants. She is bringing her case on the constitutional right to life.

Using government and industry figures, she argues that radiation releases are causing deaths on a daily basis. And she points out that closing all American nukes would still leave a national reserve margin of around 25%.

Denmark - 312,000 Danes signed a petition against the Swedish Barseback nuclear plant in only 5 weeks of collecting. The signatures have now been handed into the Danish Prime Minister.

Germany - Although plans for dumping and a reprocessing plant at Gorleben have been dropped for the moment, opponents are still on their guard, and they spent a week-end in June filling in the drill holes. At spots where it was evident that drilling had taken place, they uncovered the screw caps of drilling holes. The caps were removed and the holes filled with scrap metal, pieces of wood and sand. Four drilling holes were made unusable for any further drilling. The site still has a 24 police guard around it.

SCOTLAND'S WAVES

Wave power is dissipated around Scotland's coasts at an average rate of about 20 GW, comparable with the UK's average consumption of electricity. Average power levels off the Atlantic coast of the Western Isles are around 50 KW per metre (1 GW per 20 kilometres). However a fair proportion of this comes from extreme storms, and it is unlikely to make economic sense to install devices which would extract a high proportion of the power available in such conditions. It might therefore take 50 kilometres of cost-effective installation to provide 1 GW capacity; such a plant would have a load factor of around 50% for the year as a whole, but over 75% in winter (November to March), the period of maximum demand. Because of electricity storage can cope with only a few hours demand, a reliable electricity grid could not incorporate more than 10 or 20% of wave power; nevetheless this compares well with Scotland's share of the UK grid.

Environmentally, the main adverse effect seems likely to be overhead pylon lines through some of Scotland's most beautiful scenery. The devices themselves would (for most designs) be well offshore and largely submerged. Preliminary government studies, in consultation with such bodies as the Department of Agriculture and Fisheries for Scotland, the Nature Conservancy Council and Scottish Marine Biological Association, have revealed no likely deleterious effects on fishing or marine ecosystems. The effect on navigation, at least for an installation off the Western Isles, is likely to be minimal. The maintenance of such an installation should provide a welcome boost to the local economy, though larger-scale industry attracted by cheap electricity might be disruptive.

Wave power installations will be built from relatively small component units, whose manufacture should provide steadier employment than conventional or nuclear power stations. For economic success a specialised assembly plant is likely to be necessary, but it seems possible that redundant dockyards could be converted to this purpose. The problems of installing and maintaining devices will involve hazards similar to those of fishing and the oil industry - though without the risk of blow-outs or oil pollution!

The Department of Energy is currently supporting the development of about half-a-dozen devices including the Oscillating Water Column (National Engineering Laboratory, East Kilbride) and Salter Duck (Edinburgh University). On the technological side it should be possible to put a full-scale prototype in the sea within about five years. Progress is likely to be slower than this for economic reasons: costed in terms of conventional civil and offshore engineering construction methods, wave power appears expensive.

The next stage of development must involve making designs and construction methods more cost-effective. Alternatively, it is possible that the role of wave power devices may lie in free floating factories devoted to energy-intensive processes, such as the production of ammonia. Such a solution would avoid the power losses and costs (economic and environmental) associated with electrical transmission, and would allow greater freedom in the choice of sites so as to maximise the input power.

'Salter's Ducks', as they are called, are still being researched at Edinburgh University.

CHP...ok

A major report published in July calls for a widespread scheme to use the waste heat from power stations in one of the five biggest English cities.

The report comes from the Combined Heat and Power [CHP] Group, chaired by Sir Walter Marshall, deputy chairperson of the UK Atomic Energy Authority and former chief scientific advisor to the government.

It predicts that within 20 years, CHP may be the main form of heating for all inner city areas.

Two-thirds of the heat produced in generating electricity is simply thrown away - from cooling towers, or into rivers, lakes or the sea. CHP is a method of using most of this heat, cutting energy loss from 66% to as low as 15%.

It's cheap, uses little materials, needs to extra fuel, and is highly labour intensive. A full CHP programme, put into effect now, would provide 8% of our current energy needs by the year 2000 for a cost of £3000 million. It would provide some 20,000 jobs for 20 years, at a cost of a mere £7500 per annum per job (Compared to the nuclear costs of around £53,000 per job).

CHP is a method for piping waste heat from power stations (in particular) to houses and industry nearby. The greater the population density, the more efficient the scheme. It is, therefore suited for almost any conventional power station except nukes, which have to be well away from population centres in case of the impossible' accident.

For CHP installation, in addition to gas and water mains, houses are given the option of a heating main as well, which can be switched on and off like any conventional heating system. In general, CHP heating would cost about two-thirds of the price of gas heating.

There are no boilers, flues, fuel stores or roof tanks, so building costs are reduced and space is increased.

In densely populated Britain, 45 million people live in connurbations of 200,000 or more people, so the possibilities for CHP as a major factor for space heating are huge.

European cities using CHP include Paris, Hamburg, Berlin, Helsinki, Stockholm. Vienna and a host of smaller cities. 25 countries now use CHP for part of their energy.

US of A

A NASA solar home, which may save up to 50 per cent on fuel

For those who missed Carter's pronouncements on solar energy amongst the rest of the excitement, they were;

To increase the proportion of US energy derived from the sun to 20% of all energy by the year 2000. Funding will be from a special £50 million solar energy bank which is being set up.

To grant a 20% tax credit for new homes fitted with solar heating systems, and a 15% investment tax credit for installing solar power.

There will also be a 15% tax credit for the purchase and installation of wood-burning stoves.

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Solar Scotland

The Scottish Solar Energy Group held its most recent meeting in Kirkcaldy - a suitably unlikely spot in an area best known for its fossil fuel output. The town however is the site of Scotland's largest (70m) solar thermal installation which, encouragingly is being backed by public money.

The installation is one the roof of Kirkcaldy Technical College's newest "Priory Hostel". The building is circular and on its south-west and south-east facing roof spaces solar panels have been installed with capacity sufficient to supply all the domestic hot water for the 88 students who will live there. It is seen very much as a pilot scheme and both Tube Investments Ltd, who fitted the system, and the Napier College Research Group will be monitoring its progress. The system includes facilities for testing of various aspects of commercial water heating on such a scale. Thus it is a rare and valuable opportunity. It is intended for example to compare the benefits of anti-freeze, as against draining the system in freezing conditions, and the variation of load with peak heat availability. Tube Investments meanwhile will be able to assess for the first time a solar panel incorporating their new fabrication technique involving 'super plastic aluminium copper alloy' in action.

Before, however, we all leap to the praise of the brains behind the project, a salutory note. The new hostel includes in its design some of the worst aspects of 'non-U' architecture. All-electric heating, no wall insulation and little roof insulation show that in this case the solar panels were very much window-dressing and that no real grasp of efficient energy use was apparent in the design. All in all the project is still worthwhile - but it does show that there is much education still to be done. For some it will start at Kirkcaldy Technical College.

If you want to support the Scottish Solar Energy Group - something well worth doing - contact Kerr McGregor, Engineering Department, Napier College, Colinton Road, Edinburgh 10.

PEAT POWER

PEAT, SCOTLAND'S NEGLECTED RESOURCE.

by P.M. Dryburgh.

Pete Dryburgh lectures in Engineering Science at Edinburgh University. A fuller article on peat-fired power stations by him appears in the ecological book "Here Today" just published by E.U.S.P.B.

Peat is well known as a domestic fuel amongst crofting communities in Scotland but finds no use as a fuel on an industrial scale. The only peat commodity produced on a large scale in this country is horticultural peat. On the other hand, in Ireland, Finland and Russia peat is used industrially as a fuel for electricity generation, district heating, and other industrial purposes. Ireland, for example, generates between a quarter and a third of her electricity in peat-fuelled power stations. Scotland's one and a half million acres of peat are very much an underused asset.

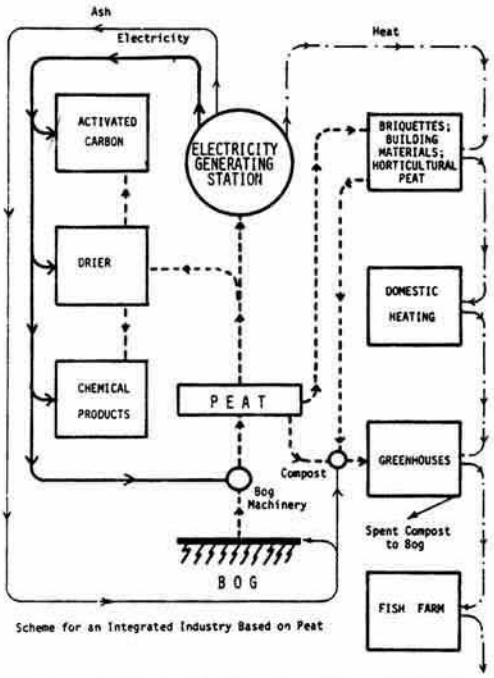
Reasonable consideration of resources, of potential markets, of long term implications, of the progress made in other countries, and of the special problems of the Scottish Highlands lead to the conclusion that a few centres of integrated peat industries should be established to develop constructively suitable Scottish peat areas.

The oil crisis of 1973 had the dual effect of changing the economics of any industry using oil as a fuel and of concentrating attention on previously neglected fuel sources. These effects were particularly marked in Eire, where years of experience in the use of peat as an industrial fuel allowed rapid advantage to be taken of previously un-economic peat operations. Impetus to existing peat development was given at the same time in Finland and other countries. Scotland, as a result of being one of the few countries in Europe having significant peat resources but no national policy for peat development, was unable to exploit her favourable position but realisation of the possibilities is at last growing. By the nature of peat-bogs they are areas of desolation, and it follows that regions which consist largely of peat-bog have low population and offer poor opportunities to the populations they do have. Neither industry nor agriculture flourishes in these regions. Why should we bother about them? Against the background of the world's preoccupation with energy sources it is easy to overlook the fact that our most useful asset is the soil

The planet Earth receives about twelve thousand times more energy each year in the form of sunlight than mankind consumes (taking the total for 1970 as an example) and it is at least conceptually possible for all the conventional energy sources in the world to be replaced by sources depending upon the photosynthesis of plants. It is not possible, however, for the mining of coal, the running of nuclear-power stations, for the drilling of oilwells to be carried out by people who have starved to death. A development programme which could result in a large increase in the land available for agriculture and forestry, when so many developments are having the opposite effect, does not seem to require much justification but any major development in bog recovery for agriculture or the manufacture of peat products would require large amounts of energy. Why not use the peat to provide it? There is a possibility of reclaiming large areas of pealand for agriculture and forestry by using the peat itself as a source of energy and, simultaneously establishing an integrated industry, using peat as the raw material for manufactured products.

The exploitation of natural resources tends to focus upon a primary use, with by-products from the "waste" being produced as an afterthought. Communities would obtain much greater long-term gain, with less violation of the environment, if new industries were received as integrated groups of operations which were optimised in respect of social benefit, profit, improvement of the environment, and the production of good-quality products. Regrettably, many industries are established only to maximise profit in a chosen market, with no reference whatever to their social consequences or their hidden demands on the community's assets.

One possible scheme for an integrated operation is shown in the diagram. The generating station, envisaged as the heart of the complex, would not be primarily part of the public electricity supply system, although there is no reason why it should not be connected to the national grid and sell surplus electricity when appropriate. Because of the thermodynamic limitation of the efficiency of electricity generation by thermal means, electricity can never properly be regarded as the principal product; it is always a major by-product. There may be advantage to be gained from operating an integrated plant in such a way as to increase the heat output at the expense of electrical output. Such a policy is ruled out at present for a public supply station by the terms of reference of the Electricity Generating Boards but there is no objection to the Boards buying electricity from private undertakings at an agreed price. The output of the peat-fired station shown in the diagram would be used in situ for running peat-bog machinery and suitable manufacturing processes, such as the manufacture of activated carbons. The heat obtained from the power station would be degraded in stages to supply subsidiary operations with heat in approrpriate temperature ranges.



Scheme for an Integrated Industry Based on Peat

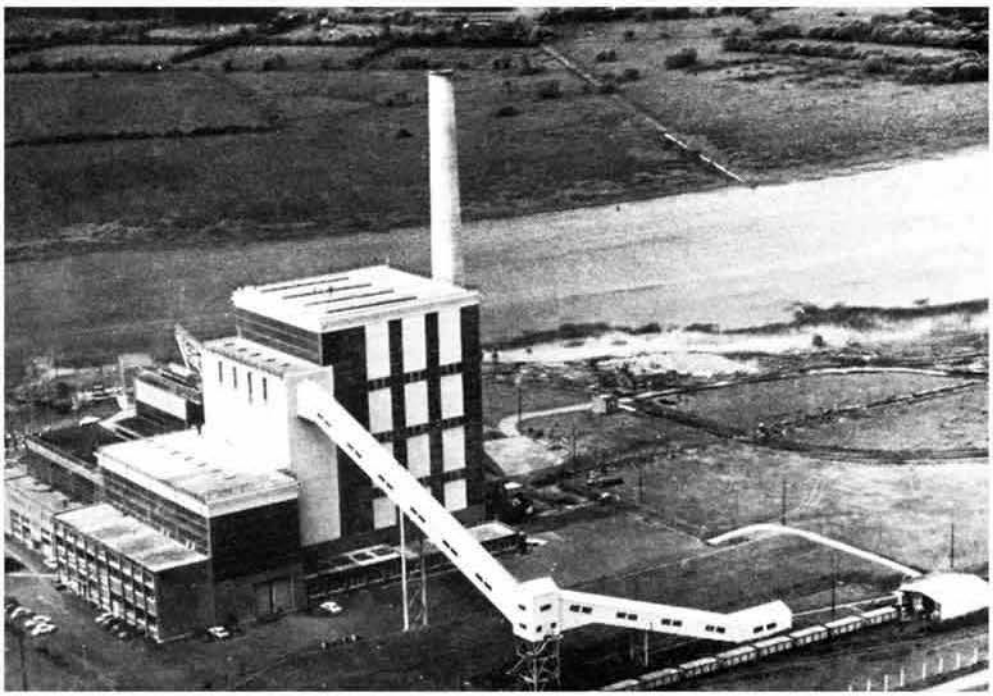
A number of options have been omitted from the diagram, which is intended only as an outline scheme. One of these options is the direct sale of peat as fuel, either as sod peat or processed as briquettes.

Some highland industries could probably be persuaded to convert to peat as their main fuel, if supplies were reliably available from an established local peat industry and if peat combustion equipment were available. The obvious examples of industries where such a conversion could be of great economic advantage are the glasshouse industry and the malt whisky industry. In the case of the existing greenhouse industry, the cost of fuel is a crippling one and has led to the shrinkage of an industry whole expansion would be very desirable. The consolidatiorf of a glasshouse industry close to a peat industry would make sense economically and logistically, but the suitability of any particular local could be determined only in the light of local circumstances.

The chance of establishing a solid industrial base for the balanced economic improvement of suitable highland areas is very attractive. When it is coupled with the opportunity of making a contribution to the reduction of the country's fuel bills and of recovering large areas of land for agriculture and forestry, it is difficult not to view the prospect with excitement.

It is not reasonable to think of peat as a major contributor to the nation's energy supply. The essential usefulness of peat is that it occurs in areas where other fuels are inaccessible or expensive, and where land recovery and labour intensive industry would put new life into the country.

Lanesborough Peat Fired Generating Station, Co. Longford, Ireland. Of the 28 power stations in Eire, 10 use peat, 9 are hydro powered and the others use coal or oil.



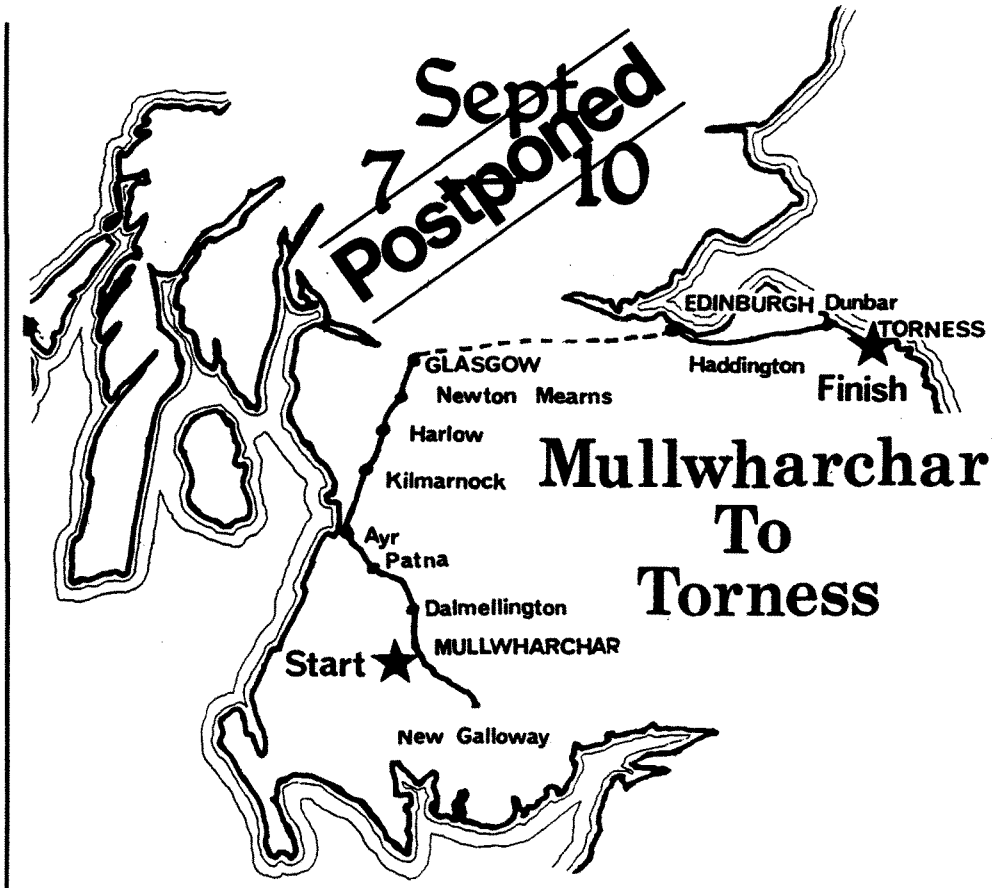
Union moves

The Transport and General Workers Union, Britain's largest union with 2 million members carried overwhelmingly a motion calling for a "review of the further development of nuclear power..." at its conference in Scarborough on April 11th. This follows the call for review of energy policy from the Scottish T.U.C. in April and a recent motion from the National Committee of the Engineering workers union (A.U.E.W. Engineering Section) expressing its "concern that the proposed expansion of nuclear energy and processing of plutonium has inherent dangers which can affect the health of the workers in the industry and the population in the vicinity of such plants."

Replying to the T & GWU debate Deputy General Secretary, Harry Irwin, stressed the danger from nuclear power and said we should not be panicked by the Thatcher government and Nuclear lobby's campaign into accepting the Harrisburg type American Pressurised Water Reactor (PWR) in Britain. While the Union was concerned for the interests of its members in the nuclear industry (who argued against the motion) it was also concerned about the effects on the general population. Britain, he said was an island of coal swimming in a sea of oil and there was absolutely no need for a massive nuclear power development. The key issue was to ensure that British Nuclear Power Stations were the safest in the world and the fact that the PWR had commercial advantages should not override the increased safety of the British Advanced Gas Cooled Reactor (AGR) even though this was more expensive. He also stressed the need to develop other sources of energy and to investigate the international implications of nuclear power.

We publish these extracts and the full text of the motion (below) because though this may seem like a small step it is a powerful one in the right direction opening up the possibility of trade union opposition to the PWR and possibly the Fast Breeder, the two developments the nuclear lobby most desires. The AGR will eventually destroy itself (we hope not literally) on economic and technical grounds. These positions could now be used to encourage debate at local level. Local T & GWU officials could be asked to help in circulating branches and approaching trades councils. Local delegates to the Trades Union Congress (TUC)in September and Labour Party Conference in November could be lobbied for support for initiatives that will be taken there to broaden the base of this opposition.

For further information of the campaign, the arguments and tactics used and any offers of help or information you have have especially sympathetic local delegates to T.U.C. contact Tony Webb, SERA, 9 Poland Street, London W1V 3DG. Tel: 01-439-3749.



T & GWU Motion

"That this Conference calls for a major review of energy policy and a review of the further development of nuclear power (apart from those developments required to improve the safety of existing plant and processes) so that a fuller debate can take place within the Trade Union Movement on the implications of a variety of future energy options with special consideration of our resources and requirements for energy and employment, believing this is called for on the basis of:

(1) There being a chronic excess of generating capacity over demand and little likelihood of an early increase in electricity consumption - especially if existing conservation technologies are utilised.

(2) The possibility of erosion of employment protection rights by statutes which allow the 'interests of national security' to override the right to appeal against unfair dismissal (Trade Union and Labour Relations Act) and the right of trade union representatives to disclosure of information (Employment Protection Act and Health and Safety at Work Act).

(3) The development of 'alternative' technologies has been starved of investment while the Nuclear programme has received massive direct funding and a number of hidden subsidies. The economic case for nuclear power should be made to include all the costs borne by the community, including the as yet unquantified costs of waste disposal and decommissioning of reactors.

(4) The alternatives of coal and conservation technologies (e.g. CHP) with the rapid development of technologies to utilise wind, wave, and solar power and the energy in forestry and agricultural wastes would create considerably more employment, across a broader range of skills (in mining, shipyards, electrical engineering and construction industries), which would better provide the range of fuels to meet our energy needs for the foreseeable future and offer potential for export.

That this Conference also demands the British Government re-examine the policy of importing nuclear waste into Britain and the Channel Islands and its storage in the interests of the welfare, health and security of the British people."

WISE - World Information Service on Energy - is planning to set up an international network to exchange information on trade union campaigns on a regular basis.

This could prove to be very important; pro-nuclear West German metalworkers very nearly managed to convince the Australian Labour movement that waste disposal problems were solved, thereby opening the way to the mining of Australian Uranium.

As well as a round up of trade union positions in different countries, the group want to put together reports from trade unionists on international issues like the way the nuclear industry is grdually increasing the 'acceptable' doses of radiation recieved by workers in the industry.

In Britain co-ordination for the project will be done by SERA. Any information on Trade Union activities or campaigns, however small, should be sent to Tony Webb, SERA, 9 Poland St., London W1, 01-439-3749.

The Nuclear Industry wants urgently to close the circle in Britain to set up its future expansion for many years to come. George Younger will have to report of the enquiry into uranium mining proposals in Orkney in a month; Torness and the Loch Lomond pumped storage scheme full steam ahead; Chapelcross expanding the Tritium plant to service the next generation of missiles; Hunterston B. still under repair but plans on the board for Hunterston C; the South Uist rocket range fed with radioactive materials that meet accidents on the single track Uist roads. HOWELL says it's time to decide about FBR; Windscale is still leaking waste while the new plant is being built; the first Enquiry into research into one of twelve granite sites in Scotland for nuclear waste burial is due in September on the Galloway Hill called Mullwharchar.

Someone in high places sees these developments whole, a nuclear empire, though they are picked off in different planning districts one by one. Thread them together however and you begin to see Scotland as one of the highest density nuclear countries in the world for its size.

Thread together the opposition in all these areas however, and you have a network of national concern, people aware of the threat of Scotland becoming in the eighties 'the nuclear state' on which there is no going back.

Together we will go on a pilgrimage, gathering at Loch Doon from all points of the compass and walk from Mullwharchar to Torness, Thursday the 6th September to Sunday 9th. There will be guides and support and as we go, beds and food, leaflets to give out, music, a vigil at George Younger's house in Ayr, a service in St. Giles Cathedral, and transport between Glasgow and Edinburgh.

Everyone can help - with posters, leaflets, food, money, or walk a part of the way and tell your friends near the route to join us. It will bring all parts of Scotland together as the industry would bring us together - a web of radioactive materials and plant up and down and across the hills.

For 2½ years we have had a long hard local slog to save the beautiful Galloway hills and the rural people from this heartless project. There is no doubt that the nuclear buck will stop here. There cannot be expansion if we will not tolerate the waste beneath our feet. Mullwharchar stands for the precious wild country of Scotland and the fertile glens watered from the hills. They are not expendable. A united people on a united pilgrimage can show the way for the world.

Details from the Scottish Conservation Society, Mrs K. Miller, The Manse, St. John's Town of Dalry, Kirkcudbrightshire.

FAULTY WASTE FLASKS

A Firm making 'bottles' for nuclear waste transportation has been taking potentially dangerous short cuts, 'according to a report by the Boilermakers' Society.

The report says that techniques at Mersey Welding Ltd., do not meet the safety specifications, and that welded seams were not homogenious.

British Nuclear Fuels Ltd., admit they 'have already had occasion to advise the company on the manufacturing quality to meet their requirements, and that they have now placed the contract elsewhere

But BNFL have not given the 22 bottles involved standard X-ray and ultra-sonic tests to check their joints, and say they have not plans to.

'The bottles are only grade 3 work, and we do allow certain working modifications to the specifications' said a spokesperson.

Douglas Hoyle, however, President of ASTMS, an engineer and former MP for Nelson and Colne, is horrified by the situation.

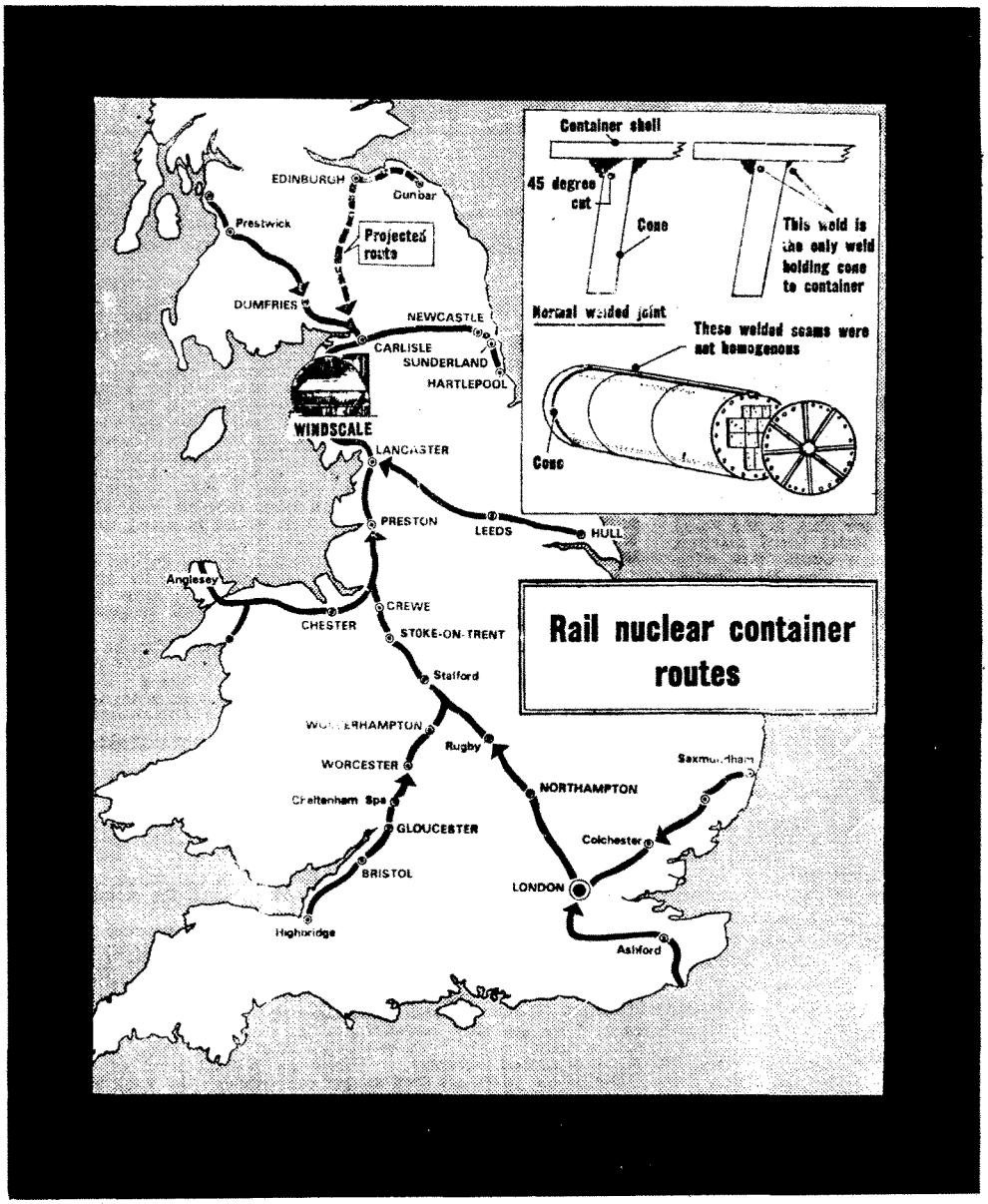
'Nuclear flasks are riding out on the railways of this country nearly every night of the week, going right through our main cities. Sooner or later one of them is going to be involved in an accident and the public has a right to expect that every single safety component is built to the highest standards, not to grade 3 standard. What if a weak bottle is inside a weak flask and there is a derailment when a 100 mph passenger train is coming the other way? Will it still be safe?'

BNFL have admitted that cooling water leaked from a steel bottle and a 50 ton flask in 1977. when the flask was being taken from Bradwell nuke in Essex. The leak was not discovered for five days, after 400 workers a day had passed the spot. This bottle had been made sub-standard by another company.

The poor welding of the bottles was made public by two former engineers with Mersey Welding Ltd., who became alarmed when they got hold of a copy of the specifications. The standard of work being done, they say, 'would be totally unacceptable for equipment for the oil and chemical industries.'

They are surprised that BNFL have not X-rayed the welding - 'you can't tell just by looking', one commented. 'It is my belief that at least some of the containers now being used to transport this highly dangerous material may not be as strong as they are supposed to be. As a human being I am worried.'

A spokesperson for Mersey Welding said the allegations were 'absolute nonsense. Boilermakers are just troublemakers, everyone knows that.'



Harrisburg - Costs still mounting

Whilst it is still too early to assess what will be the final financial toll on the "insurance world" of the reactor-accident at Pennsylvania's Three Mile Island plant, four main suits have been filed against General Public Utilities, the owners of the plant.

One of these is said to involve something in the vicinity of a million individual claims.

Among the four main suits is one to force the creation of a trust fund to cover periodic medical examinations over the next 20 years for everyone living within 20 miles of the site of the accident.

Another one seeks the payment of damages to individuals and businesses for loss of income during the accident.

Another seeks the closing of the plant as a danger to the public.

The fourth one seeks punitive damages against General Public Utilities for having positioned something as dangerous as their reactor within the urban community of Three Mile Island.

The possibility of a melt-down, with a huge explosion, loss of life and property damage had its immdeiate reactions in the London insurance circles. Several of the leading British companies were carrying under-writing coverage which would, if eventuating, have put them out of business several times over.

Already some million dollars has been paid out in emergency assistance to some of those who felt it necessary to evacuate the area. They were among the evacuees living within five miles of the reactor. These payments were made by two nuclear liability insurance pools - the American Nuclear Insurers and the Mutual Atomic Energy Liability Under-writers.

The main recipients of damages-funds were "pregnant women and families with pre-school children in the evacuated area."

Some insurance authorities consider there will have to be a complete "write-off" of the Harrisburg reactor, but they decline to say how much it will cost to remove it, cover it with soil or dispose of it in some way acceptable to the local people and those on whom the radio-active structures would be dumped.

The two nuclear liability insurance pools cover nuclear facilities for amounts up to $160 million and beyond that the U.S. Government is supposed to provide, under the Price-Anderson Act, a coverage of up to $560 million.

However, all of these matters look like devloping into huge law suits. All authorities are apprehensive, even those in London, Tokyo, Paris, and Frankfurt carrying much of the liability.

Had the melt-down and explosion occurred, many of the major insurance companies would have faced pay-outs they could not meet individually or collectively. They would have either gone to the wall or told their customrs to go there!

As part of the world nuclear crises of 1978/79, the insurance feature has only just begun.

● The Nuclear Regulatory Commission has been told that staff don't know how much was released at Harrisburg because it was higher than any of the radiation monitors could cope with and register.

"So we don't really know what went up there" one of the staff was asked, "That is correct", he replied.

About 30 demonstrators greeted Mrs. Thatcher on her day visit to Edinburgh on July 10th. Faced by a large banner proclaiming 'Nuclear Power Kills Tories Too', she turned to accept the bouquet offered her by two members of the Young People anti-nuclear group. But on seeing the flowers were dead, she smiled, said 'Good morning dears' and was whisked into her car, by then liberally stickered with smiling suns.

The demonstrators then went round to the police headquarters in time to greet her arrival there.

DIRECT ACTION

A typist at a saw-mills in Berwick is being threatened with dismissal for refusing to type orders and quotations relating to the proposed nuke at Torness.

Jean Walton, working at Allan Bros. Ltd., Berwick-upon-Tweed, was first called in by the firm's Managing Director and asked to resign. She refused to do this, and was threatened with the sack after refusing to do two other pieces of work.

Since then she has heard nothing, but has suddenly become very much busier than usual, while the other typist in the office has had very little to do. She assumes they are trying to get rid of her this way, and told SCRAM "I dont know how much longer I will be able to stand this pressure of work."

She has now suggested to her local Friends of the Earth that they circulate all firms in the area supplying Torness work with a leaflet about nuclear power.

CHEETAHS

The debut single from the Edinburgh band, the Cheetahs, is to be released on Phonogram Records in early August. A fairly commercial punchy song about the horrors of radiation, it's certainly the best anti-nuclear single released so far.

The first 10,000 copies will include a free smiley sticker. Publicity for the single will be using smiley badges and stickers and Pluto Press' Big Red Diaries. SCRAM's name will be printed on the bag as a contact address for further information.

'I don't wanna be radioactive' is available from SCRAM at £1.20 including post and packing.

Fiddling figures

One of the many bones SCRAM has to pick with the Scottish Electricity Boards (SSEB and NSHEB) is their capability of supplying consumers with far more power than will ever be used, even on the coldest day of the year (or, put technically, 'excess generating capacity').

To use a crude analogy, a family may own four bicycles, which suffice to meet the 'simultaneous maximum demand' of ferrying one kid to school, mum and dad to work, and granny on a once a year outing. Obviously, for much of the time the bikes remain idle, but equally obviously three bikes would be of limited use. However the electrical supply situation which prevails in Scotland (and is similar in the UK) is akin to that same family being forced into owning, and paying for, 7 bicycles instead of the four. The situation just described in fact represents a 75% excess capacity over simultaneous maximum demand' (7 divided by 4 equals 175&), whereas by the end of 1979, the Scottish electricity boards will have available 86% more power than was used on the coldest day last winter.

Ah-hah, says the Boards, but generators break down occasionally, so in case one of the bikes gets a puncture you'll need 5 bikes or granny may miss out. But already the cycle dealers have cottoned on... "Buy a tandem and save on running costs!" So you sell 1 bike and buy a tandem (i.e. 3 bikes, 1 tandem)....but what if the tandem...O.K. let's have 2 tandems.

By this time of course, the cycle dealers have moved into family planning.

An anti-nuclear group is starting in the Duns area. Contact is Joan Carruthers, 3 Dunslow Cottages, Duns.

SCRAM MAIL ORDER SERVICE

†We have a growing stock of informative background and campaigning material - send off for it using the enclosed mail order form. Recent additions include; 'Is Nuclear Power Necessary' - Lovins, FoE (reviewed last issue) £1.80 and 'Nuclear Power - the Plain Facts', a straightforward A4 leaflet explaining all. 5p each, 20p for 10, £1.50 for 100. Prices include postage.

And sadly unavailable just now; 'Soft Energy Paths' is out of print, and 'All Atomic Comics' (still on order from USA)

DUNTERS

The Dunters were formed last year in Orkney as an environmental group which aimed to attract membership from native Orcadians who are normally shy about joining anything. We have been quite successful so far and the founder members formed the nucleus of the local anti-seal cull campaign last October.

Since then we have taken an active role in the anti-uranium campaign, working along with the Orkney Heritage Society and other local groups.

We are in the process of producing the third edition of "Radioactive", a leaflet designed to build up awareness among Orcadians of the nuclear industry in general, and how uranium fits into the complete programme of expansion.

In this we differ from the Heritage Society who have decided to limit their campaign to uranium only.

In view of the proposed expansion at Dounreay, we intend to publicise this threat to the Orkney Environment and are keen to organise a joint demonstration in the Thurso area with any other anti-nuclear groups in the N.E.

Contact Frances McKie, "Curleywee", Glaitness Road, Kirkwall, Orkney.

Subscriber's bonus

Subscribers to SCRAM will receive with this issue the latest World Information Service on Energy Bulletin **WISE**, which is mainly funded through sales of smiley badges and stickers, is taking in increasingly important role in the transnational campaigning against nuclear power.

We can recommend everyone to subscribe to **WISE** direct, and become a supporting member if possible, Other wise, single copies are available from our mail order service, 30p inc. postage.

WISE, 2e Weteringplantsoen 9, Amsterdam, Netherlands.

Can you write anything for this bulletin? If you can think of any articles you could write, or could help in any other way (eg paste-up, mailing copies, selling etc), please get in touch.

We also need NEWS. It's much easier to receive it than to chase it up. So tell us if you or your group is doing/has done anything of note (English anti-nuke groups in particular, please note).

Little Black Rabbit has noticed an interesting change in the Electricity Board's propaganda leaflet 'Tor ness - Your Questions Answered'.

One section used to read:

Q. What about an accident at a power station releasing radioactivity?

A. Such an accident is not only extremely unlikely but almost inconceivable.

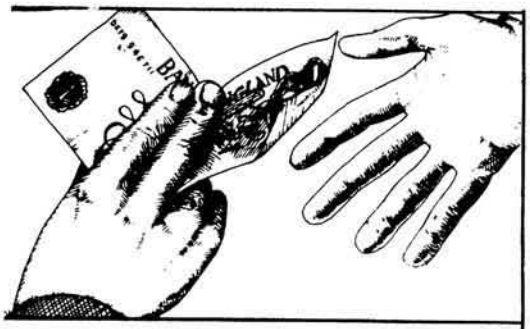
That leaflet has been withdrawn and an identical one put out - except this section which now reads:

Q. Isn't it dangerous to live near one? Look what happened near Harrisburg, USA, in March 1979.

A. Major accidents releasing large quantities of radioactivity are not only extremely unlikely but almost impossible.

But, alas, no longer inconceivable. And not **completely** impossible either.

LBR will be watching out for further changes after the next major accident.



MONEY

Firstly, a very big thank you to all the groups and individuals who raised funds for the May gathering. Although we are still disputing one or two large bills the Torness Alliance a/c has just about balanced.

SCRAM is now entering a very important time. Previously full-time workers have been entirely voluntary but this autumn we shall start paying two and hopefully three full-timers.

Will you help support our growing campaign with a regular donation? We now have people using the **Bankers Order**, some giving 50p a month some £5 a month. We leave it entirely to you we are grateful for any sum, however small.

Crossword

The crossword puzzle in Bulletin 11 was won by Marion Hall, 19 Carlyle Road, Birmingham.

SCRAM' nuclear waste lorry gets passing interest in Edinburgh recently. The lorry is used to bring home to people some of the realities of the nuclear state. [photo Jamie

? WHO IS SCRAM?

The Scottish Campaign to Resist the Atomic Menace (SCRAM) was established at a meeting at Torness Point in East Lothian in November 1975. 'SCRAM' in nuclear jargon means to shut a reactor down in emergency. Our aims are:

1. **To inform the public of the present and proposed nuclear developments, and their social, political and environmental consequences.**
2. **To oppose by all nonviolent means the further development of nuclear power in Scotland and elsewhere.**
3. **To press for a long term energy strategy based on conservation and the use of renewable resources.**

SCRAM is a member of the Torness Alliance and works closely with many other organisations. We have organised several nuclear site occupations and other national protests. We have held public meetings, given talks, film shows and so on to establish links with all sectors of the community.

SCRAM is strictly non-party political. We are funded solely by donations and sales of literature. We desperately need a regular income and ask all our friends and supporters to fill in the Bankers Order Form. It's painless (the Manager does it for you) and £1 a month from 200 friends would give us £2,400 a year; £5 a month from 100 would give us £6,000 a year.

HELP SCRAM FIGHT FOR A SAFE AND SANE ENERGY FUTURE!

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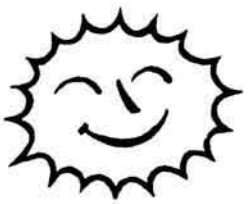

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EDINBURGH RALLY

There will be a major rally against Nuclear Power in Edinburgh on Saturday 15th September. Following the highly successful may gathering, attended by 10,000, SCRAM has decided to organise a more traditional demonstration in the city in which a broader range of the public feel able to participate.

There will be a strong emphasis on the safe and sane alternatives to the nuclear energy programme - conservation, coal and combined heat and power stations. This reflects a broadening of the campaign to include a recognition of the real benefits which everyone would reap if the nuclear programme was cancelled.

Invitations have already been sent to community associations, youth clubs, trade unions, and a broad range of organisations concerned with the health and safety of the community.

We plan to assemble at Waverley Bridge on Saturday 15th September and march down Princes Street and to the Meadows where a rally will be held. Robin Cook, Dr Alice Stewart, Mick McGahey hope to be speaking and Roy Harper will play. Several other prominent supporters hope to come and details are yet to be finalised. We hope to have exhibitions and displays at the Meadows

If you can help with publicity or transport to the rally please tell the Rally Planning Group at the SCRAM office and we can send you materials.

For your Diary

6 Aug. Hiroshima Day
9 Aug. Nagasaki Day
British (London) premiere of the 'China Syndrome' film.
18-20 Aug: Anti-nuclear festival at Carnsore, Eire.
25-27 Aug: Comtek alternative energy festival at Milton Keynes.
Contact Rosemary Rhoades, Comtek, c/o Redfield Co-op, Winslow, Bucks.

15 Sept: SCRAM rally in Edinburgh
29 Sept: Proposed demo at Whitehaven, Crumbria. Contact Jim Garrison Cambridge 50917
October: is International Energy Conservation Month.

Windscale

Large numbers of leaks fron Windscale over the last 2 years have forced the government to set up an enquiry into the cause.

The enquiry will be carried out by the Health and Safety Executive. A spokesperson for them said " All we have is evidence that leaks are occurring. We want to know if there's anything more to it."

There will also be a review of security there and the arrangements for transporting waste. This will be headed by Sir John Nightingale, former Chief Constable of Essex. His findings will not be made public.

STUDENTS AGAINST NUCLEAR ENERGY
NATIONAL CONFERENCE

October 19-21, 1979

Manchester Polytechnic Students Union
Contact Martin Goldschmist, 01-263-5196

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MARCH & RALLY

for a sane energy future

STOP TORNESS!

NO WASTE DUMPING

NO URANIUM MINING

NUCLEAR POWER? NO THANKS

ASSEMBLE 11AM

Waverley Bridge, Edinburgh

SAT 15 SEPT

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Edinburgh 3. (031-225 7752)