

# SCRAM ENERGY BULLETIN



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

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## HUNTERSTON 'B'

### 'A CATASTROPHE WE MUST NOT REPEAT'

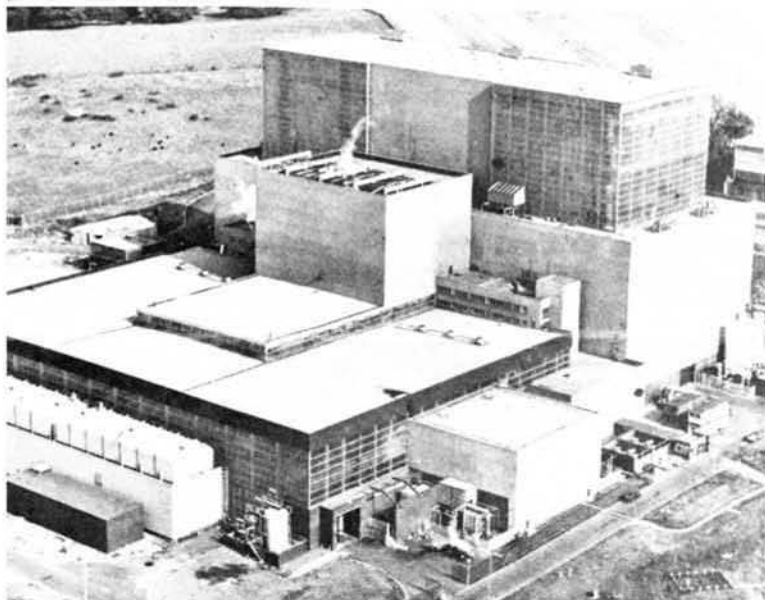
As the South of Scotland Electricity Board (SSEB) spends increasing sums of public money in lavish last-minute attempts to allay public fears over their plans to build the next Advanced Gas-Cooled Reactor (AGR) Nuclear Power Station at Torness in East Lothian, little is said on the disastrous economic history of their last AGR - at Hunterston in Ayrshire.

The whole sad story, compiled here for the first time, reveals a series of persistent blunders and miscalculations which together suggest that the Hunterston B AGR is an economic catastrophe which we cannot afford to repeat.

As part of Britain's first AGR programme, construction work was started on Hunterston B in November 1967, on a site adjacent to the existing Magnox Station (Hunterston A). The first reactor unit was finally commissioned in February 1976, followed by the second unit in March 1977 - 3 years later than expected. In the case of Hunterston B such a delay was particularly costly.

Back in December 1968, the North of Scotland Hydro-Electric Board (NSHEB) signed a contract with the British Aluminium Company (BAC) under which they were to provide electricity to the aluminium reduction plant at Invergordon for thirty years at an agreed price. The huge amounts of electricity consumed by the plant were far beyond the resources of the NSHEB, so a special 'Smelter Account' was set up, whereby the electricity would be supplied directly by the SSEB's station Hunterston B.

The contract, based on "reasonable expectations for the construction and performance of Hunterston B" (ref.1) was in the spirit of the heady days prior to



the 1973 oil crisis, when cheap and plentiful electricity from nuclear power was - as some say it is today - "just around the corner". In retrospect, it is clear that BAC are paying a ridiculously low price for their power.

The three year delay cost the 'Smelter Account' £52 million (March 1976 cost levels). In addition, due to the need to restrict the operating temperature of the AGR to reduce the risk of corrosion of boiler tubes, the Hunterston AGR had to be significantly "de-rated" - at a cost to the 'Smelter Account' of a further £13.3 million. (over)

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The situation was so serious that in April 1976 the Government was forced to introduce a special Bill into Parliament (The Electricity (Financial Provisions) (Scotland) Bill 1976) in order to increase the Scottish Electricity Boards' upper limit on borrowing and to facilitate Government repayment of the deficit incurred by the BAC contract. In drawing up the original contract the Government had provided a let-out clause for the NSHEB, just in case "substantial loss did arise" (ref.1), suggesting that they would foot the bill. In the event that is just what they did.

The total deficit involved over the 30 years of the contract was estimated in 1976 by the Scottish Economic Planning Department (ref.1) to run to at least £95 million. This, however, was only an "indicative" estimate, and no upper limit was actually included in the Bill. The lump sum eventually paid to the Smelter Account has never been confirmed, but is reckoned to be at least £200 million (ref.2). The hard-pressed taxpayer has forked out to offset the losses incurred by foolishly optimistic electricity planners. Such a huge subsidy is not taken into account when the electricity boards do their sums which 'prove' the comparative cheapness of nuclear electricity.



We all make mistakes

Hunterston B then ran more or less properly for 6 months - until, in October 1977, a "human error" allowed over 1000 gallons of the Clyde to flood the pressure vessel of the second reactor unit. At a press conference in December the SSEB calmly announced that the total cost of the incident could amount of £14 million (£3 million to repair the damage, £11 million to meet the cost of generating replacement electricity) and that this could add 2p in the pound onto electricity bills. Earlier that year, the SSEB had included a circular with all electricity bills, signed by their Chairman, Mr. Roy Berridge, proudly proclaiming that, "The increasing output of nuclear electricity from Hunterston is continuing to back our fight against inflation". Many could not help but notice the irony.

A mere £14 million has however proved to be a rather optimistic estimate. In Parliament in July this year, Mr. Gregor MacKenzie, Under-Secretary with the responsibility for the Scottish Electricity Boards, revealed that in fact the cost of the repair would be £8 million and the cost of generating alternative electricity "almost £28 million".

That brings the total cost of the Hunterston B incident to a staggering £36 million - 2½ times the original estimate. The reactor will also be out of service for at least another year. How much the whole incident will actually cost is of course going to be another question.

The precise effects of such a history are difficult to specify. An analysis of the comparative cost-per-unit figures in the SSEB's 1977/8 Annual Report shows that the competitiveness of nuclear electricity, always a marginal matter, has decreased sharply over the last year. Nuclear electricity last year cost 1.2p per unit, compared to 1.3p per unit for coal, oil and gas-fired electricity. If this trend continues into next year, nuclear electricity will be more expensive than the alternatives.

There is no doubt, though, that the SSEB figures mask the true situation. A footnote to the cost-per-unit figures is revealing :-

"All figures exclude...decommissioning expenditure, and the repair to Reactor 4 unit insulation at Hunterston B Power Station following the sea-water incident."

In addition, their calculations take no account of the Government £200 million subsidy (explained above); the future cost of waste disposal; and the hidden costs of fuel cycle services carried out by British Nuclear Fuels Ltd., such as enrichment and reprocessing (both heavily subsidised by the Ministry of Defence).

Hunterston B, in spite of all this, has been referred to as "the best AGR in the world". This claim is not so ludicrous as it might at first appear. The only AGRs in the world are in this country and of the five started between 1966 and 1970, only two have actually come on stream (Hunterston B and Hinkley B). One of the Hinkley B reactor units suffered a serious incident in June 1977 which resulted in it going out of commission for several months. The other three, Heysham, Hartlepool and Dungeness B, are, according to Government estimates, going to be respectively at least 5, 7 and 9 years late.

(over)



SCRAM now holds regular fortnightly meetings in Edinburgh, usually on Wednesday evenings. Everyone is welcome, especially new faces. Please phone the office for details at : 031-225 7752 (daytime).

## Dumfries C.N.D.

The newly formed Dumfriesshire CND (Campaign for Nuclear Disarmament) and other local anti-nuclear groups, such as SCRAM South-West, are organising a mass-leafletting of Dumfries from 11 am to 1 pm and from 2 pm to 4 pm on Saturday 2 September. (Annan will be leafletted the evening before.)

They want to rouse public opinion against the £50-million extension to the Chapel-cross nuclear reactor. The extension is for producing Tritium radioactive gas, for the Ministry of Defence, to use in H-Bombs.

Please put the date firmly in your diary and tell your friends about it. Ask those who can't come to send a donation instead to the Treasurer, Bill Stout, 3 Noblehill Drive, Dumfries (tel: 3557). Bill is also the person to tell that you are coming and what times you will be there.

If you would like details about transport, especially from the Glasgow area, or a copy of the leaflet that will be used, contact Ian Davison, Scottish CND, 420 Sauchiehall St., Glasgow (041-942 1099). On 2 September itself, please report to Tam Kelly (Councillor) at the Trades Council Club, Nith Place, Dumfries.

## Ireland

Ireland's first Anti-Nuclear Power Show is scheduled for 18th-20th August at the site of its first proposed nuclear station at Carnsore Point in County Wexford. Music, exhibitions and "people power" are all on the bill, so those who need a break in Ireland are urged to go and "Get to the Point". More information from 160 Rathgar Road, Dublin or from Rhoda McManus, 48 Bull Ring, Wexford (tel: 053 23764).

## Heysham

Torness is one of two Advanced Gas-Cooled Reactor (AGR) Nuclear Stations ordered this Spring. The other is proposed for Heysham beside the sleepy seaside town of Morecambe, near Lancaster. This would be Heysham 'B' - they are already trying to build one of the first generation AGRs there. It is only 5 years behind schedule - not a patch on Dungeness 'B' which is now reckoned to be at least 9 years late, at a cost estimated by Duncan Burn, a pro-nuclear journalist, of at least £990 million.

Opposition to the construction of Heysham B is growing. The anti-nuclear group HALF-LIFE, based in Lancaster, thinks that they need another nuclear power station even less than we do here. They have just unveiled plans for a grand festivity on SATURDAY 16 SEPTEMBER. They have invited people concerned about nuclear power to come to Heysham to express their opposition to any nuclear expansion and their desire for safe and sane energy sources.

Activities planned include fun and games, clowns and fire-eaters at a picnic lunch on Morecambe pier, followed by a walk "down the promenade" to the site of Heysham 'A' for all to witness what an AGR really looks like - 200 ft. high corrugated iron box surrounded by concrete.

A campsite has been arranged nearby and on Saturday evening there will be more entertainment and people can get together in smaller groups to share experiences and knowledge on the fight for a non-nuclear future.

SCRAM has booked two coaches for Heysham, departing early on Sat. 16 September - one returning on Saturday and one on Sunday afternoon. Return tickets cost £5.00 each or £20 for 5. Get together with your friends and book early! Further details, tickets etc from SCRAM.

*In this issue we have enclosed an order form for SCRAM campaign material and literature, along with an introductory leaflet and banker's order for you to give to inquisitive friends. Further copies of the leaflet are available from SCRAM.*



## HARDCORE

Mr. Roy Berridge, Chairman of the SSEB, spoke on Radio Scotland on Monday July 15th. He referred to the "hardcore" of nuclear objectors whom he said it would be impossible to convince of the 'benefits' of nuclear power. The implication was that there is a static number of anti-nuclear sympathisers.

In fact, the last few years have seen a huge growth in the strength and support of groups such as SCRAM. At SCRAM's formation in November 1975 on the Torness site there were only 40 people; at a weekend SCRAM CAMP in April 1976 over 100 demonstrated their opposition; in May of this year there were 4,000 of us. Next year? Anyone else want to join the hardcore?

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## we are not alone...

Preliminary site work has already begun. Pollocks of Airdrie are carrying out drilling to test the stability of the underlying rock structure.



A drilling rig which appeared on site for a few days.



IF THEY'VE DEVOTED THEIR LIVES TO PROMOTING NUCLEAR POWER YOU CAN'T COUNT ON THEM TO BE OBJECTIVE, IMPARTIAL OR UNBIASED ABOUT WHETHER WE NEED NUCLEAR POWER!

Electricity Board officials have been seen wandering around with maps and plans:—



"What Power station ? "

South of Scotland Electricity Board

