

Public understanding: can we make an atom of difference?

Christopher Harding, chairman of British Nuclear Fuels plc, gave this presentation to the British Nuclear Energy Society in January at the University of Manchester Institute of Science and Technology (UMIST).

Since joining the nuclear industry a few years ago I have taken a particular interest in public and political attitudes towards nuclear power, and I now share the conviction held by most people in the industry that attaining an improvement in public support is vital if the future of nuclear power is to be assured.

Despite this personal interest I would not claim to be an expert even on public opinion, and perhaps I should say *particularly* not on public opinion.

There is one big difference between the study of public opinion and the pursuit of science, and practice of engineering: public attitudes are not subject to the immutable laws of science, nor to the predictable behaviour of materials which enables engineers to build confidently today to meet the needs of tomorrow. You can to an extent measure public opinion, but you cannot safely predict it, nor can you control it.

Of course, we all know that it is possible to influence opinion for better or for worse. But experience suggests that a cautious approach should be adopted towards anyone who claims the ability to achieve dramatic improvements by any means except the most painstaking efforts.

It was partly for this reason that I demurred a little at the idea of simply adopting as a theme for this article something along the lines of, 'How to get the story across in defence of the nuclear industry'. I preferred something different for two reasons.

First, I did not want to imply that I have all the answers to the industry's problems of communications and

persuasion, or even that I think I have all the answers.

The second reason to prefer another title is because I quibble at the use of the word 'defence' in this context. If we

That is the strategy I believe the nuclear industry must now follow. A merely defensive response to our critics will not do. We must concern ourselves with positive measures, based on our own initiatives both to maximise and to promote the advantages of nuclear energy and thus secure the public support we need.

I preferred to choose another title for this article: 'Public understanding: can we make an atom of difference?' The play on words is, of course, entirely intentional. It is based on my view that if we are to succeed in winning support, then we must be prepared – to borrow a phrase from the marketing men – to repackage our product.

The first reactors

The first production reactors, the Windscale piles, were built to produce plutonium. They were designed and constructed in a hurry to meet urgent defence requirements. The operation was conducted in great secrecy with virtually no regard to public opinion. Regard was paid to public health and safety and to environmental impact, but not with anything like today's priorities.

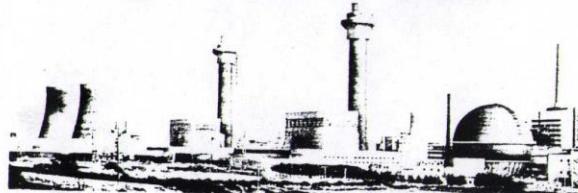
Public consultation about the decision to build Britain's first nuclear electricity generating plant was perfunctory by today's standards. True, Calder Hall, like the Windscale piles, was built primarily for military purposes, but electricity was from the first seen as an important by-product. In fact public opinion was very much in favour of adapting the technology of the atom bomb to peaceful purposes. Memories of the fuel crisis of the late '40s were still fresh. People

remembered shivering for lack of coal and electricity, and the factories shut down, the workers laid off as a result.

The announcement of the first civil nuclear power programme was greeted enthusiastically. So was the subsequent doubling of the original programme after the Suez oil crisis had brought home how energy dependent our economy had become.

In the light of today's concerns about nuclear costs, it's worth remembering that it was officially recognised then that

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recognise, as I think we should, that we are engaged in a war of words about our industry, and also to a considerable extent a conflict of ideologies, then we should take a lesson from military history; I should tell you at this stage that I am a historian by training. The lesson is that, wars are not won by defensive strategies, however soundly based. The best you can achieve by defence is the avoidance of defeat. To gain victory requires more positive and more active measures.

32 nuclear power would not at first be economically competitive, but it would reduce the risk of fuel shortage, lessen what was seen as a dangerous dependency on coal, and help to conserve coal reserves.

Today, more than 30 years on, we have become well used to a very different climate of opinion, with public attitudes towards nuclear power sharply divided. Many people are concerned about safety, about health, about environmental pollution, about the disposal of radioactive waste, about cost, about the risk of proliferation of nuclear weapons, and so on. Voicing those concerns, and indeed stimulating them, we now have

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well-informed, well-funded, ably-staffed environmental organisations opposed to nuclear power and actively engaged in arguing the case against it.

Public opinion today

What is the true state of public opinion in Britain today towards nuclear power as the dust begins to settle from the controversy stirred up by the privatisation plans, now abandoned as far as the nuclear stations are concerned? With state support for further nuclear construction for the time being withdrawn, how do the British people regard the technology? How does opinion here differ from opinion in other countries, and are there any lessons which we can learn from experience in the nuclear industry elsewhere?

From results of a regular tracking study of public opinion conducted quarterly on behalf of BNFL we know that until the last sample there has always been at least a bare majority in favour of nuclear power with the exception of the immediate post-Chernobyl period in 1986. I stress according to this poll because other polls indicate a consistently lower level of support for nuclear power. All results are influenced by the way in which

questions are phrased and the context in which they are put.

Over a six-year period from 1984 the proportion in favour of increasing nuclear power, or for it to remain at its present level, has gone from just over 50 per cent to as high as 60 per cent but is now at 40 per cent. Those seeking to reduce or stop nuclear power have gone from just over 30 per cent to around 45 per cent in the same period.

By way of contrast, the results of another tracking survey, conducted by a different polling organisation on behalf of the Nuclear Electricity Information Group (now merged with the British Nuclear Forum) indicate a consistently lower level of support for nuclear power, with a similar larger proportion of don't knows.

The trend of ups and downs is similar to the BNFL poll, showing the same drop in public support after Chernobyl, although not so acutely because this poll, unlike ours, did not measure opinion precisely at the moment of maximum shock-effect. Its latest figures show around 50 per cent opposed and 40 per cent in favour.

Nuclear versus other sources

How do views on nuclear power compare with those on other means of producing electricity? Again our research measures strongly held views both for and against the main options. Only nuclear power arouses strong antagonism, and it also has the lowest percentage of enthusiastic supporters. There is enthusiasm for hydro-electricity, unrealistic though we know that to be in this country, and support for 'other' sources of electricity, which mainly cover the renewable forms of energy, with natural gas in there, too.

These figures relate to 1989, and it is interesting to compare them with the views of the public in 1986. Of those strongly 'pro', hydro has increased from 61 to 66 per cent, coal reduced from 62 to 28 per cent, oil reduced from 47 to 22 per cent, nuclear remained at 7 per cent, and other sources increased from 62 to 66 per cent. For those strongly 'anti', the respective percentages are as follows (1986 figures first): hydro 1 and 1, coal 1 and 3, other sources 1 and 0, oil 3 and 4, nuclear 33 and 29.

Thus the position of nuclear power appears to have improved very slightly – at least in the sense that the percentage of strong opposition was marginally higher in that immediate post-Chernobyl period. But look what has happened to

coal and oil. Support for these fossil fuels is much reduced – an effect almost certainly of growing environmental concern about global trends, including acid rain, the ozone gap and the greenhouse effect.

Why are people opposed to nuclear power? When those who are opposed responded last year to the question, 'What is your main concern about nuclear power?' it was health (21 per cent), safety (20 per cent), pollution and nuclear waste (19 per cent) which were predictably the main reasons quoted, but very few people – only one per cent – quoted concern over cost as their main reason for opposition. Of course, that

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does not fully reflect feeling on the economic issue because many of those who say they are mainly worried about health, safety and environmental issues may also consider nuclear power to be unacceptable expensive.

Let me summarise some other facts which emerge consistently from research into the public's attitudes towards nuclear power:

- support for nuclear power is largely male-dominated – 61 per cent of supporters are men;
- the young, the poor, and the less well educated are comparatively more hostile to nuclear power;
- two out of three people think the risks from nuclear power outweigh the benefits;
- over 70 per cent of the population admit that they are not well informed about nuclear power;
- women are more likely to be opposed than men and more likely to say they don't know enough to form an opinion.

In the autumn of 1989 the International Atomic Energy Agency (IAEA) held a conference to discuss public awareness issues. It is interesting to consider some of the information tabled by delegates from the various countries represented:

- in France, generally considered the world's leading nation in the development of nuclear power, Electricité de France reported a continuing decline in public support for nuclear energy, with 58 per cent of the population now expressing concern;
- in Japan, another leading nuclear nation, anti-nuclear sentiment has spread since 1987 into what was described as a 'nationwide citizens' movement' with 46 per cent of the people opposed to further nuclear development;
- in Germany, it was stated, political opposition to nuclear power is growing, yet by contrast the latest opinion poll conducted for the German Atomic Forum suggests that public opinion is becoming more supportive;
- in the United States, where no orders for nuclear power stations have been placed since 1979 and where there have been a number of cancellations, new nuclear orders are expected in the early 1990s to meet rising demand. Opinion there, influenced by a campaign promoting energy independence run by the US Council for Energy Awareness, is now more supportive towards nuclear power than for years past.

It is encouraging to see reports now coming from neighbouring Canada that Ontario Hydro, the biggest utility, anticipates building ten nuclear reactors over the next 25 years. Also encouraging are the latest reports from Sweden of a possible move away from the present controversial political commitment for the phasing out of nuclear power, which generates half the nation's electricity.

That IAEA meeting on public awareness resulted in a number of recommendations about how the nuclear industry should pursue public support:

1. The *need* for nuclear power was seen as the strongest long term message.
2. Need should be discussed not only in national but in world terms, with emphasis on the growing energy demands of the developing third world.
3. The industry should aim to set the agenda of debate. It cannot afford merely to react to its detractors. (You will know from what I have already said, that this is very much my own view.)
4. In dealing with the public the industry had to overcome an image of secrecy. This, it was concluded, could only be achieved by a long term consistent commitment to openness and honesty.
5. The industry needed to present a human face and talk to the public in simple everyday language and non-



Figure 1. Fifty-seven per cent of visitors to Sellafield's Visitors' Centre are favourably disposed towards nuclear power

technical terms.

6. Public concern for the environment should work in the nuclear industry's favour but the issue needed sensitive handling. Extravagant claims and cynical exploitation of green issues have to be avoided.

Those guidelines, arising from that IAEA initiative, help to point the way for the marketing men to 'repackage' our product. This is a process applied to any long term product whose appeal to the public has faded for one reason or another. Essentially the product itself may be as sound as ever, but its presentation to the market is seen to need a fresh approach. In many ways that is the position facing the nuclear industry today.

A fresh approach – can it work?

Can this approach work when the industry has to face not only public indifference but a fair degree of downright hostility towards the product we are offering? I have no doubt that it can, and I believe that what we have achieved over the past four years in BNFL holds out very real prospects of success for the industry as a whole. Our public information programme has been largely directed towards improving the reputation of the company after a period of considerable difficulty. The evidence, both objective and subjective, indicates that we have made some real progress and achieved a significant shift in public

attitudes. Let me briefly describe what we have done.

The story centres on our reprocessing and waste management centre at Sellafield – Britain's biggest and best known nuclear site. It began six years ago when we had what came to be known as 'the beach incident'. An unscheduled release of radioactivity contaminated the shoreline; the public was warned off many miles of the Cumbrian beaches for months on end; the tourist trade reacted angrily; the affair was headline news throughout that period and the adverse publicity was later renewed and compounded when BNFL was convicted and fined in the Crown Court for a breach of the ALARA (as low as reasonably achievable) principle.

After that almost anything that happened at Sellafield made the headlines. Research showed the impact this was having on public opinion:

- most people saw BNFL as an environmental polluter and a danger to health;
- Sellafield was seen as a dangerous place at which to work or near which to live;
- BNFL was seen as secretive and dishonest.

Still pursuing the marketing analogy, the company decided it needed both to improve its product and to repackage it.

The product improvement involved modifications to plant and procedures to prevent a recurrence of that major

34 pollution incident, and a commitment to a quality management approach to safety achievement to cut the number of incidents at Sellafield to the absolute minimum.

Suffice to say that we did achieve our objective, and there has been a progressive year-by-year reduction both in the number and the severity of incidents since then. In addition, new plant coming into operation has enabled us to reduce routine discharges of activity to the environment to a tiny fraction of previous levels.

I am dealing here with how we represented Sellafield and BNFL to the public. After the review of several strategic options we decided to base our approach on openness – open information and an open door to the public. We concluded that our first priority had to be to re-establish credibility before there could be any prospect of more positive messages from BNFL about the importance of its role in nuclear power being favourably received – or, indeed, simply being listened to.

Full co-operation

Openness included a policy of full and frank co-operation with the media, including those reporters and producers we recognise as critical if not downright hostile towards us. A readiness to tell the bad news as well as the good we believed would help build up credibility. Willingness to face the most critical scrutiny would convey to the public a sense of confidence and responsibility that would vastly outweigh the occasional distorted report or knocking television programme.

Openness also included an all-out drive to get people to visit Sellafield to see things for themselves and form first-hand impressions, and that drive has been supported by advertising on television and in the press.

Visitors to Sellafield have increased dramatically from some 29 000 in 1985 to 159 567 in 1989, but getting people through that open door is actually only a secondary objective, albeit an important one.

The main objective has been to signal to the nation at large that they *can* come to see for themselves. They *are* coming in their thousands, but those who do visit Sellafield will always be a small proportion of the population. If everyone recognises, however, that the door is open, the old image of secrecy is dispelled – we hope once and for all –

and the climate of opinion becomes more favourable for a gradual build-up of trust and confidence.

We have developed a new Visitors' Centre at Sellafield. We use the latest presentation techniques to put over our message in non-technical language, and our team of guides is ready to respond to visitors' questions.

Sellafield a few years ago was regarded by the tourist trade as a deterrent to visitors to west Cumbria. We set out to turn it into a tourist attraction by offering an entertaining as well as informative experience to visitors.

As a result Sellafield is now Cumbria's most visited tourist centre, and our researches show that we are *influencing* our visitors, not just entertaining them.

MORI survey

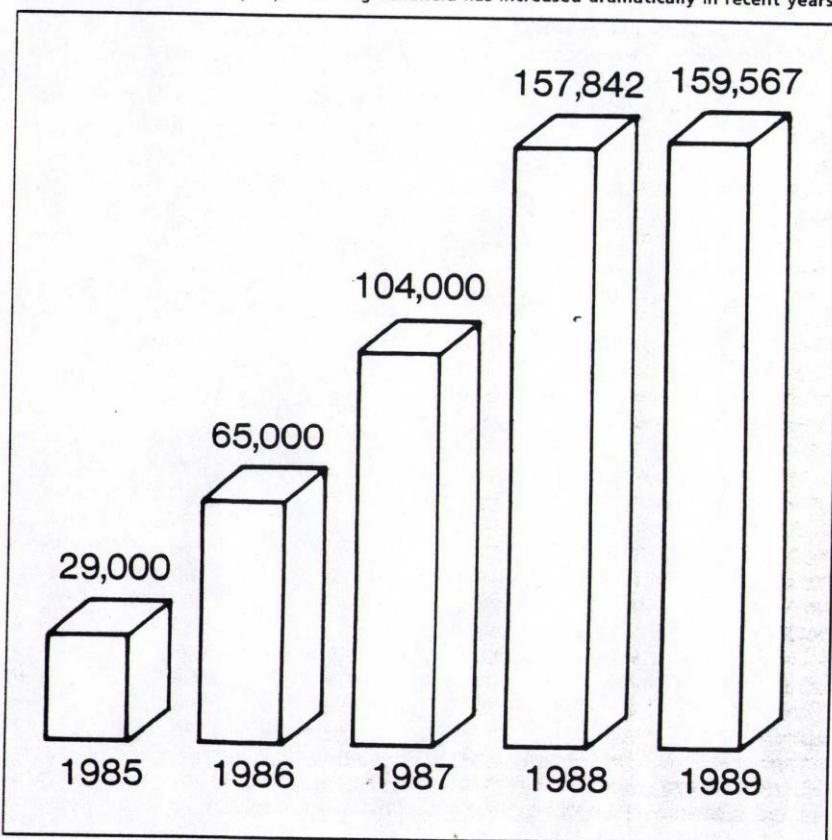
A survey we commissioned from the MORI research organisation shows that 64 per cent of visitors to Sellafield are very satisfied with their visit and with the facilities and that 24 per cent are fairly satisfied. Of the rest only 8 per cent expressed themselves dissatisfied.

On arrival 57 per cent of visitors said that they were favourably disposed to nuclear power. That figure rose to 79 per cent after their visit, and the percentage opposed to nuclear power dropped from 16 per cent to only 9 per cent as a result of what people saw and heard at the Visitors' Centre and during the tour of the site.

There is both qualitative and quantitative evidence to demonstrate that our overall public information campaign has made significant progress in improving the reputation and perception of Sellafield and of BNFL itself. Comment about the company by politicians, industrialists and other opinion-formers has substantially improved in tone.

Our campaign itself has received public recognition in a number of ways, including the top award for 1989 by the Institute of Public Relations. Many organisations outside the nuclear industry have consulted us about our approach, indicating that our successes are now recognised. These organisations include major oil and chemical companies, the British Airports

Figure 2. The number of people visiting Sellafield has increased dramatically in recent years



Authority, the police, and the National Health Service.

We set out to attract as many journalists as possible to visit us and promised them ready access to our managers from the top down for interviews and background briefing. Since then there has been a significant change in the tone of press coverage. Our media analysis categorises press coverage and broadcasts about us under three headings – 'critical', 'neutral' and 'favourable'. Month after month now the balance of the coverage is favourable – a reversal of the situation a few years ago.

Campaign costs

The costs of our promotional campaign are significant. Our Visitors' Centre cost over £5 M, and we spend £4 M a year on our corporate advertising and on running the centre. That is only one component – certainly the biggest – in our overall public information programme. Naturally we need to measure the return on this investment in terms of the shift in public attitudes we aim to achieve. We do this by periodic tracking studies.

There are some key indicators reflecting the percentage of the adult population agreeing with a number of statements about BNFL – in 1986 before our campaign began and in late 1989 when it had been running for more than three years.

There are significant improvements in people's evaluation of the importance of BNFL's role (and by implication that of nuclear power itself), of our rating as a British company, of the contribution we make to conservation, and of the quality of our management. These improvements are not perhaps dramatic, but we regard them as very encouraging and ample endorsement of the strategy we have been following.

The improvement in the public's evaluation of our openness, really is dramatic: in 1986, before advertising began, 23 per cent of those canvassed believed that BNFL encouraged visits, and by 1989 that figure had risen to 67 per cent; similarly, in 1986 only 23 per cent believed we kept the public informed, but in 1989 this figure was 42 per cent.

We have concluded that, we have made sufficient progress in re-establishing our credibility that we can now take our information campaign to a further stage to project more specific messages

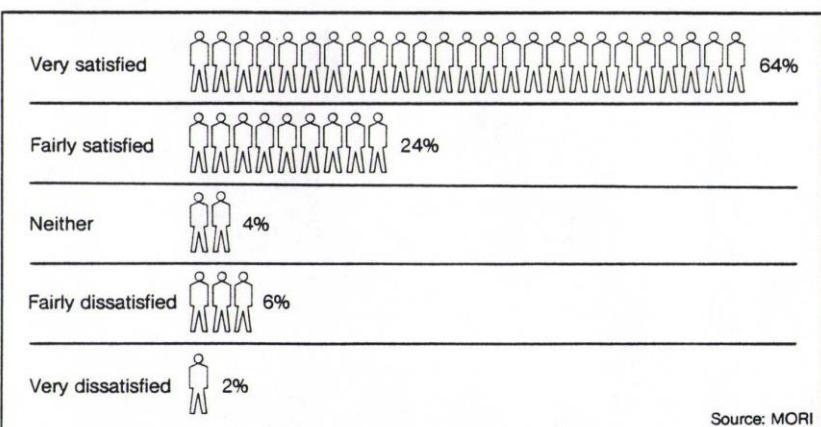


Figure 3. Shows the views on nuclear power of visitors to Sellafield

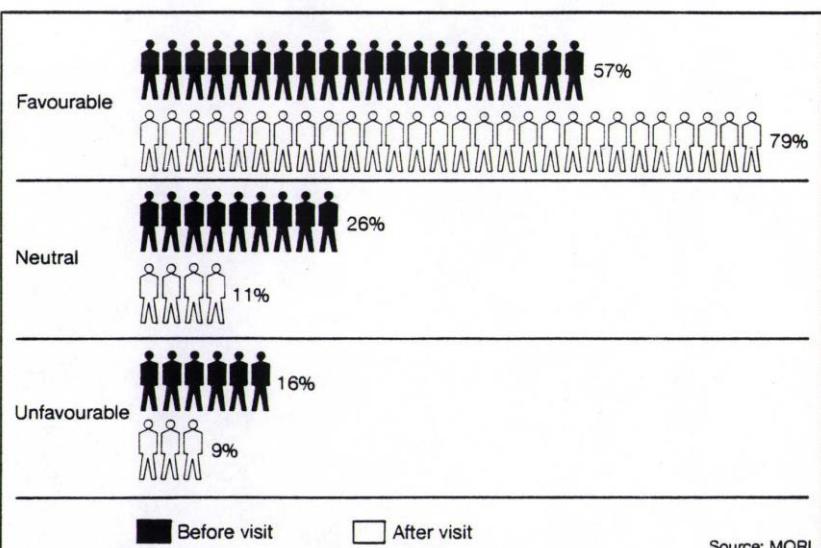


Figure 4. Views before and after a visit to Sellafield

about nuclear power. We can do that with some confidence that, people are now ready to listen to what we have to say and to give it credence.

Public concern

Given continuing safe operation of nuclear plant, public concerns about risk should gradually ease. We know we must find a publicly acceptable solution for the disposal of radioactive waste if we are to remove the single biggest obstacle to gaining full support for nuclear power.

All our research shows that waste is the outstanding issue of concern for the public – and I have heard the same statement made by leaders of the nuclear industry from all round the world. The public seems to think that waste is a problem to which there is no solution. We have to demonstrate that the only

obstacle in the way of disposing of the problem – and disposing of the waste – is the public's own reluctance to accept a solution.

We must welcome the tide of concern for the environment that has risen around the world. It can lead to growing recognition of nuclear power's role as a long term benefactor to our planet, rather than the polluter and despoiler which is how it has been portrayed in the past.

The nuclear industry has cleaned up its act – at great cost. Public and political pressures are now demanding the same from the main energy sources with which we compete. As a result we can confidently look forward to a change in the relative economics which will be very much in our favour. On this basis we can look forward to growing recognition that there is now an atom of difference – a clean atom and a profitable atom. ■