

PRIME MINISTER

YOUR VISIT TO BNFL AND CEGB, 1 NOVEMBER 1985

On Friday, 1 November, you are to visit British Nuclear Fuels PLC (BNFL) and the new CEGB nuclear power station under construction at Heysham.

You travel chronologically through the whole nuclear fuel cycle. You start with the enrichment of uranium at BNFL Capenhurst. From here, enriched uranium goes to BNFL Springfields for fabrication into fuel assemblies. The fuel assemblies are sold to the CEGB - among others - and burnt in nuclear power stations, such as the one being built at Heysham, your third port of call. Finally, when its "reactor life" is over, spent nuclear fuel is moved to BNFL Sellafield (formerly Windscale), where it is reprocessed to recover the valuable uranium and plutonium and to separate out the small amount of waste.

You fly first to Hawarden, where you will be met by Mr Con Allday (Con is short for Coningsby), Chairman and Managing Director of BNFL. He will accompany you throughout the day.

BNFL Capenhurst

BNFL Capenhurst is the British arm of an Anglo/Dutch/German marketing organisation for enriched uranium - called URENCO. URENCO sells in a highly competitive market - there is a world glut of enrichment capacity - and it does well.

Its success is ascribed to the technology used - the gas centrifuge. URENCO's competitors (France, the US and, to some extent the USSR) have gone down a different technological route, using a process known as diffusion. In all three cases, this process receives a hefty Government subsidy. Crudely, diffusion uses 10 times more electricity than the centrifuge process and is far less able to respond flexibly to changing market demands. One interesting point: the Chinese have expressed interest in buying centrifuge technology from BNFL.

The principal isotopes of uranium, U235 and U238, have identical chemical properties and so can only be separated by physical means. U235 is the important fissile isotope. The centrifuge process uses uranium hexafluoride (HEX) in gaseous form. HEX is fed continuously into the rotor of a high speed centrifuge. As the gas rotates the heavier U238 molecules stick to the rotor wall and the U235 molecules move to the centre. The centrifuges are built in series, known as "cascades".

On arrival, you will be met by Mr Neville Chamberlain, BNFL's director for enrichment, and Mr Peter Roberts, Capenhurst's general manager. Press Photographers on Arrival.

You go first to the Visitors' Centre for brief presentations by Mr Allday on the BNFL group's work and by Messrs Chamberlain and Roberts on Capenhurst's work.

Then on to the Centrifuge Assembly Plant, where you don white coat and cloth overshoes. The plant manager, John Charlton, will show you the component parts, most of which are manufactured on site, being put together.

You will see three generations of centrifuge, the first entirely British, the second having some Dutch or German components and the start of the third, which is a completely collaborative project between the URENCO partners.

You go on to see the cascade halls, serried ranks of centrifuges spinning away silently at about three times the speed of sound and without maintenance for at least 10 years. (If one, or a number of centrifuges go wrong they are automatically by-passed.) Into the HEX building, where you see the HEX converted from solid to gaseous form. You will also see the 'separated out' U238 and 'you may be invited to roll out a 2-tonne holder of enriched fuel, which represents £½m worth of Capenhurst product (on a hover, not heavy). Press pictures here.

There is an opportunity for you to say a few words to the press as you leave the building. This is a good opportunity, early in the day to get on lunchtime bulletins and into evening papers. Capenhurst has an impressive story to tell.

BNFL Springfields

Springfields' main function is to fabricate fuel rods for use in Magnox power stations and fuel assemblies for use in AGR, the Dounreay prototype fast reactor and the old SGHWR at Winfrith.

Springfields also manufactures the HEX used in the Capenhurst centrifuges and exports HEX to the US and most European countries. Springfields' HEX exports were worth about £15m last year.

On arrival you will be met by Dr Michael Horsley, Springfields General Manager and given a five minute presentation on the site's work. Press pictures on arrival.

You pick up a white coat and go by car to AGR Canning accompanied by Mr Ron Jenkins, the plant manager. Here, as the name of the building suggests, you see the fabrication of fuel for use in AGRs. Press photographers here. You will probably have your attention drawn to the fact that BNFL have started to manufacture what they call "second stage" AGR fuel. This improved fuel will enable AGRs to be refuelled while still producing power at a high capacity.

At present AGR capacity is cut back to about 30% while refuelling takes place. The Stage Two fuel will push this capacity up (opinions vary on how much - but it's at least double and will save the CEGB several hundreds of millions of pounds).

They will also probably tell you that production standards are so high and quality control so tight that out of 1½ million AGR fuel pins manufactured, only 2 have failed.

You go on into Magnox canning, where you are escorted by Mr Doug Mitchell. Here BNFL has manufactured 3½-4m fuel rods over 30 odd years.

From here by car to the Apprentice Training School, where Mr Ray Perry is the man in charge. The school takes in 55 school leavers a year and trains them as fitters, turners, machinists and electricians. (They also trained a blacksmith!) The Springfields workforce goes to the school for re-training - 250 men were retrained last year to keep their skills up-to-date.

As well as their normal work, the apprentices "do up" cycles for handicapped children, wheelchairs for ex-servicemen and make "multi-activity toys". You will see this work. Press photographers here and in forge training area.

You end your Springfields visit here and there is an opportunity to say a few words to the press as you leave the apprentice training school. They will be to your right in the entrance hall.

Heysham II AGR Nuclear Power Station

This is a massive construction site. I managed to walk the course in high heels, but I felt precarious and was clucked at by the male population! A hard hat and anorak are the order of the day.

Heysham II (pronounced Heesham by the locals) will be Britain's 5th AGR; construction started in 1980 and the station should be on stream in the late 1980s. The track record for getting earlier AGRs built to time and cost was appalling but the CEGB confidently says that all is well on this station.

The station will have two 660 MW reactors. Total cost is £1,251m (at 1980 prices) and 98% of the work has gone to British firms. The site workforce numbers about 6,000.

On arrival you will be greeted by Lord Marshall, CEGB Chairman. He will introduce you to John Baker, CEGB Secretary, and to Stan Newey, the Heysham II Project Manager. You go into the site construction office for lunch, during which you will have brief presentations from John Baker on generating strategy and from Stan Newey on progress with Heysham II.

Your tour starts at the east end of the reactor building, or charge hall. You travel in a (shakey) lift high above the reactors and go along a walkway to look down upon both of them. You will pause to be shown a very short video of the work going on in clean conditions inside the reactors. You will also see the massive fuelling machine. Press photographers here. Above Reactor I you will meet Bill Morland, site manager for the National Nuclear Corporation, who organise the construction of the nuclear island.

You walk down metal steps into the control room, where you will be invited to push a button on a VDU unit to flash up a display of the operations which are involved in controlling the reactor. Press photographers here.

You take a lift down into the turbine house where you meet John Woodger of NEI/Parsons. You walk past the massive turbines and go down some stairs to the turbine loading bay. This is your last port of call at Heysham, and there is an opportunity for you to say a few words to the press in the loading bay as you leave.

BNFL Sellafield

You will be greeted on arrival by Gordon Steele, Director of Reprocessing, and taken to the new Fuel Handling Plant which you are to open. You unveil a plaque just outside the door and say a few words. BNFLs guests will be present here, as will the press and you may want to take this opportunity to sum up your impressions of the day for the press.

You then tour the plant (in overall and cloth overshoes) accompanied by plant manager, Derek Bamber. You will see

On this occasion we had to fix the speech before the tour in order to be sure to catch the evening news.

the enormous pond in which spent fuel rods are stored for cooling (this is very impressive), the washing area and the decanning caves. Press photographers by the pond and by decanning.

You go on to see the Site Ion Exchange Effluent Plant (SIXEP) which is essentially a chemical filter to reduce discharge levels. Plant manager, Steve Baxter, will accompany you. Press photographers in SIXEP control room.

You go on by car to a viewing platform to see work on Sellafield's new Thermal Oxide Reprocessing Plant (THORP) which was the subject of a 100 day public inquiry in 1977. THORP will reprocess oxide fuel from Britain's AGRs, the PWR (if and when we have one) and water reactors in other countries. The project represents a £1300m investment by the company, 90% of related orders have gone to British firms and over 4,000 people are employed on the construction work, which started earlier this year. Over and above the construction workers, the Sellafield site employs about 6,000 people.

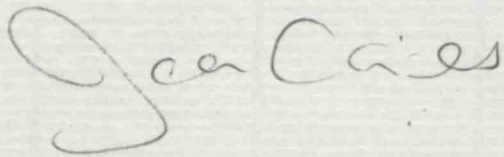
Then on to see an excellent little exhibition centre, visited by about 25,000 people so far this year. Here you will have a short presentation from Mr Steele.

Finally you go to a reception for industrialists and local VIPs, where Mr Allday will present you with a gift. The editor of BNFL's company newspaper, Mr Andrew Young, will be the only "journalist" present and it would be very nice if you said something to him about each of the sites you have visited.

The company's house journal, "BNFL News", has asked if you would contribute a Question and Answer feature for the newspaper and a draft has come to you.

PRESS

I have indicated the points at which photographers will be present and where you might want to say a few words to journalists. You may wish to be aware that, because the sites are a long way apart geographically, BNFL is laying on a press helicopter for national TV, radio and the Press Association. This helicopter will shadow yours.



JEAN CAINES

Deputy Press Secretary

14 October 1985