POWER PLAN

TEACHERS' NOTES

British Nuclear Fuels plc (BNFL) is a government owned organisation with over 40 years experience of providing services related to nuclear power generation both at home and abroad. The company is a world leader in the manufacturing, reprocessing and re-cycling of nuclear fuels and in the management of nuclear waste. Nuclear power is used in generating one fifth of the UK's electricity, and because of this BNFL makes a vital contribution to meeting the UK's energy needs.

By combining tests of dexterity with an informative database, 'Power Plan' provides an entertaining way for pupils to learn about electricity demand in the UK, and the part played by nuclear stations.

INSTRUCTIONS FOR RUNNING POWER PLAN ON RM NIMBUS

Put the disk into the disk drive
(the left hand drive, if there are two).

Type **A**: and press **Enter**.
Type **PPLAN** and press **Enter**.

INSTRUCTIONS FOR RUNNING POWER PLAN ON BBC B, B+ & MASTER USING DFS

Insert the disk.

Hold down **SHIFT**, press and release **BREAK**.
Release **SHIFT**.
OR
Type **CHAIN"PPLAN"** and press **RETURN**.

If you need an 80 track disk rather than 40 track:
Type ***40-80** and press **RETURN**.

NOTE: Once a disk has been converted to 80 track, it will not run on 40 track disk drives.

PART ONE

Section one provides an important overview of nuclear power station distribution in the UK.

Each of the country's nuclear power stations can be located on a map of the UK, providing instant access to data on the type of reactor used, its design and actual power outputs; the number of people employed and other relevant information.

PART TWO

In part two, simulated models of the Magnox and the AGR reactors allow pupils to study each aspect of the two types of reactor most used in the UK in detail, and gain an understanding of the processes involved.

Pupils are then given the opportunity of taking their position at the controls of any of the UK's nuclear power stations. By adjusting the position of the control rods and the gas and steam flow, they can attempt to achieve the station's maximum energy output.

PART THREE

In part three, pupils are given the task of producing enough electricity to meet the UK's energy demands.

By calling on the three additional fuels used in major electricity generation in the UK, coal, oil and gas, pupils incorporate the nuclear contribution to the base load to ensure that the lights don't go out and the shops and factories stay in business.

'POWER PLAN'S' TRACK RECORD

Teachers have already responded positively to 'Power Plan' and have used it as a teaching resource in science classes across the country. 'Power Plan' is also included in the BBC Enterprises' 'Inside Science' software package. This is an educational resource designed for GCSE science courses developed in association with the BBC.

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