



Sir Denis Rooke sheltered by HRH Prince Philip, on the occasion of the 150th anniversary of the Great Exhibition of 1851; reproduced with the permission of His Royal Highness.

Denis Rooke

DENIS ROOKE

1924–2008

Elected in 1987

“For many technological contributions, including his role in design and construction of the world’s first liquefied natural gas system.”

BY DAVID WALLACE

SUBMITTED BY THE NAE HOME SECRETARY

SIR DENIS ERIC ROOKE, OM, CBE, FREng, FRS, died September 2, 2008, aged 84. He was a commanding figure in every sense in engineering and business, whose career in the gas industry culminated as chairman for 13 years of British Gas, then a nationalized monopoly, world-leading in technical innovation and profitable for the UK government.

He was born in New Cross, in Southeast London, on April 2, 1924, the younger son of F.G. Rooke, a commercial salesman. A precocious child, he went to primary school at age 3, two years earlier than usual, but his next four years were dogged by illness and were spent mostly at Great Ormond Street Hospital. He emerged at the age of 7 unable to read, write, or walk properly. It made him determined: “I worked like hell.”

At Westminster City school he made exceptional progress and went on to the Addey and Stanhope School and then to University College London, where he graduated with first-class honors in mechanical engineering and later did a post-graduate diploma in chemical engineering.

When he graduated in 1944 he joined the Royal Electrical and Mechanical Engineers (REME) and was sent to India at a time when there was a real threat from the Japanese army. From the experience he decided that the problems of world

poverty would be solved only by technological skill. He was promoted to the rank of major at age 23.

His lifelong career in the gas industry began in 1947 with a temporary appointment at the Metropolitan Gas Company. In 1949 he moved to a permanent position, working first at the South Eastern Gas Board on coal-tar byproducts.

His first opportunity to be involved in innovation of global significance came in 1957, when he went to the United States to engage with the project to redesign the 5,000-ton *Methane Pioneer* to enable it to transport liquid natural gas (LNG).

At that time in the United Kingdom, "town gas" was extracted from coal in some 1,000 local gasworks. The product was dirty, smelly, expensive, and poisonous (implicated to some degree in 70 percent of all suicides). As a source of heating, it seemed set for irreversible decline in the face of competition from electricity and oil.

In 1959, after spending months in Lake Charles, Louisiana, overseeing the conversion of the *Methane Pioneer* to transport LNG, Denis was in technical charge and personally sailed on the first voyage across the Atlantic. It was a storm-tossed, 23-day epic from the Gulf of Mexico to Canvey Island (UK), the route determined by the necessity to avoid shipping lanes because of the perceived risk of explosion. But it opened the way for commercial-scale UK imports of Algerian gas, the phasing out of coal, and the development of a national supply grid. Globally, it pioneered the multibillion-dollar LNG industry, now taken for granted.

The UK gas industry was transformed by the discovery of a huge methane reservoir at Groningen in North Holland. The Permian Basin in which it was located extended under the North Sea toward the United Kingdom, and exploration there was successful. The debate was whether to reform it to town gas or to convert the more than 13 million domestic, commercial, and industrial gas appliances to use the higher calorific value but lower flame speed of natural gas.

Denis sat down with the chief accountant and on a couple of sides of foolscap they estimated the cost benefits of direct supply. The decision was made to undertake the conversion

program, which was completed over the next 7 years at a cost of £100 million (around \$250 million, or more than \$1.5 billion at today's prices). It proved a resounding success, the industry shed its dated and dirty image, and natural gas became the fuel of choice. Denis played a leading role in the turbulent political and commercial battles between the gas industry and producing groups for the purchase of the offshore gas.

The development and construction of the reception terminals and the national gas grid were essential concomitants. Denis was much involved with the impact of liquefied methane from Algeria, which had started in 1965 and gave the UK gas industry all-important experience for these developments. The construction of a national high-pressure pipeline grid, integrating the previous system of municipal coal gas plants and local gas holders, was a major technical achievement, not least in its remarkable safety record over 40 years.

Throughout his career, Denis was a strong supporter of technical innovation. The offshore gas fields in Morecambe Bay were developed using slant drilling. The research centers that he set up developed the technology of fire and explosion engineering, the use of plastic pipes for gas supply, and intelligent pigs for inspection of pipelines. And he gave credit for these successes: "My team did this," not "I did this."

His rise at British Gas culminated with his appointment as executive chair in 1976. At that time, British Gas was a nationalized industry, so no memorial to Denis would be complete without reference to his relationships with successive prime ministers and members of the cabinet. His style was that of a commanding captain of industry, a passionate champion for his company, with great physical presence—large, craggy, with a lantern jaw. He was variously portrayed as gruff, autocratic, and outspoken. According to former MP Tam Dalyell, his contributions to discussions of the Parliamentary and Scientific Committee were a powerful combination of modesty and blunt forthrightness. He was the archenemy of any sign of cant among politicians, of scratching for easy options.

Both despite and because of this directness, he was held in the highest regard by many Labour and Conservative

politicians alike, including James Callaghan, prime minister during Denis' first years as British Gas chair, and, in the early 1980s, the Conservative energy secretary Peter Walker and science minister William Waldegrave.

However, his relations with Nigel Lawson, Secretary of State for Energy in 1981–1983, were, in Denis' word, "cryogenic." According to a later interview, Lawson "hated my guts from my feet to the top of my head"; the dislike was probably mutual.

The Conservative Bow Group, among others, wanted to see British Gas privatized and broken up in order to promote competition. After a great deal of argument and much hectoring from Prime Minister Margaret Thatcher, Rooke struck a deal with Lawson's successor Peter Walker, whom he greatly respected. Instead of breaking up the industry into separate enterprises, the gas transmission, distribution, and retailing business was turned, by Act of Parliament in 1986, from a publicly owned single monopoly into a single private sector monopoly, British Gas plc. The initial public offering of 135 pence per share valued the company at £5.4 billion, the largest-ever offering in world stock markets at the time. It was oversubscribed by a factor of three. In the 25 years following privatization, excluding dividends, value to shareholders increased 12-fold, outstripping the 3.5-fold increase for the wider UK stock market in that period.

Denis retired in 1989. During his 40 years, through determination and technical innovation, he transformed an industry in decline into a great company. His achievement of ensuring that British Gas was sold in one piece was, however, relatively short-lived. After investigations, sometimes rancorous, by the Mergers and Monopolies Commission, the barriers preventing competition in the supply of gas to homes were dismantled and British Gas was split into three parts.

He was elected to the Fellowship of Engineering (now the Royal Academy of Engineering) in 1977, was its president from 1986 to 1991, and received its Prince Philip Medal in 1992. He became a fellow of the Royal Society in 1978 and received its Rumford Medal in 1986 in recognition of his service to scientific

developments in the gas industry. He was elected a foreign associate of the National Academy of Engineering in 1987.

His many other professional roles included president of the Institution of Gas Engineers, which awarded him its highest honors, and of the Pipeline Industries Guild, Welding Institute, Association for Science Education, and British Science Association. He received the James Watt International Medal of the Institution of Mechanical Engineers, and the George E. Davis Medal of the Institution of Chemical Engineers.

Denis was highly valued by the many bodies that appointed him as chair, among them the Council for National Academic Awards, Ramsay Fellowships Memorial Trust, National Science Museum, National Museum of Photography, Film, and Television, and Royal Commission for the Exhibition of 1851. He was active and respected in the life of the City of London: a founder and past master of the Worshipful Company of Engineers, an honorary freeman of the Worshipful Company of Tallow Chandlers, and a liveryman of the Worshipful Company of Painter-Stainers.

He was awarded more than 20 honorary fellowships and honorary degrees in science, engineering, technology, and law.

Denis was appointed chancellor of the Loughborough University of Technology in 1989 and it was in this role that I met him when I went as vice chancellor in 1994. During my 12 years there, he was hugely supportive to me in the very best ways—even when we dropped “Technology” and became “Loughborough University,” which was regarded as the end of the world by many in the university’s engineering departments (it wasn’t).

His presence at degree ceremonies was immense: a large figure, feet firmly planted, he congratulated and shook hands with every one of the 3,000 or so students graduating annually. He missed only two occasions, for his admission to the Order of Merit and for his honorary degree at Cambridge, where the university orator, Anthony Bowen, did a superb job of encapsulating both the gas industry and Denis in Latin: “Lux, calor . . .”—with poetic license I translate as “enlightenment and warmth.”

He was awarded a CBE in 1970 and knighted in 1977 in recognition of his services to the gas industry. It is public knowledge that he was offered appointment to the House of Lords and declined. In an interview with Tam Dalyell, he explained: "throughout my life, I have taken the view that either I do a job properly or not at all. To 'do the Lords properly' I believe that one has to be a regular attendee, week in and week out. My other interests simply do not permit anything approaching acceptable attendance." He was the clearest of thinkers, not least about his own position.

His greatest honor was appointment to the Order of Merit, which is reserved for individuals of the very highest distinction across all walks of life. With only 24 members at any one time, it is wholly in the gift of the Queen. It was probably particularly special to Denis because no politician was involved in the decision. He had the highest regard for the service to the nation given by the senior members of the Royal Family, particularly the engagement with engineering of Prince Philip, Duke of Edinburgh; as the photograph shows, the respect was reciprocated.

Denis' hobbies were photography, particularly of flowers, and music, especially opera.

In 1949 he married Elizabeth Brenda Evans, a constant companion throughout his life. He is also survived by their daughter Diana.

