## THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS

Report on the correspondence and papers

of

## SIR WILLIAM KENNETH HUTCHISON

(1903-1989)

engineer

in Churchill Archives Centre, Cambridge

Reproduced for the National Cataloguing Unit for the Archives of Contemporary Scientists

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Hutchison FRS (1903-1989), chemical/gas engineer

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### **GENERAL INTRODUCTION**

#### **PROVENANCE**

The papers were received in August 1997 from Mr D.R. Martin to whom they were bequeathed by Hutchison.

#### OUTLINE OF THE CAREER OF SIR KENNETH HUTCHISON

William Kenneth Hutchison was born on 30 October 1903 in Assam, India, where his father managed a tea garden. Following his mother's death from appendicitis in 1906 Hutchison was sent with his brothers and sisters to Scotland where they were brought up at Lochar House, near Dumfries, by their Aunt Harriet. In 1914 the family moved to Edinburgh where Hutchison attended the Edinburgh Academy as a day boy. In 1922 he obtained a scholarship in natural sciences at Corpus Christi College, Oxford, and after his third year examinations, Hutchison spent his research year as C.N. Hinshelwood's personal research assistant investigating the decomposition of acetone. Several publications resulted from this research, and he graduated with First Class Honours in Chemistry, but Hutchison decided against an academic career and turned instead to industry.

In September 1926 he joined the Gas Light and Coke Company as a research chemist, working to improve the performance of existing gasworks plant. After several years Hutchison moved to the company's Fulham Laboratory as a Senior Chemist. During the mid-1930s he took a leading role in the design and construction of a new benzole plant at Kensal Green. The plant began operating in 1937 with immediate success, and Hutchisons's work on it was recognised in 1942 with the award of the Moulton Medal of the Institution of Chemical Engineers. Despite his achievements Hutchison felt his prospects for advancement within the Gas Light and Coke Company were limited and when he was offered a secondment to the Air Ministry's Directorate of Hydrogen Production, to help with the war effort, he readily accepted.

Hutchison joined the Directorate in January 1941 as an Assistant Director and in June 1942 suceeded Viscount Ridley as Director. The Directorate's main task was to organise the manufacture and supply of hydrogen to support the balloon barrages flying over the major cities and other significant targets in the United Kingdom. It is a testament to Hutchison's success as Director that despite the large

number of balloons destroyed during German air attacks, hydrogen supply was consistently able to meet demand. In January 1944 Hutchison took on wider responsibilities with appointment as Director of Compressed Gases and saw to it that there was an effective supply system to meet the demands of British and American aircraft for high flying oxygen.

In August 1945 Hutchison obtained his release from the Air Ministry and returned to work for the Gas Light and Coke Company. He was appointed Controller of by-products in December 1945 and in late 1946 became a Managing Director of the Company and a member of its Court of Directors. Hutchison did not hold these positions long, however, as change swept through the gas industry with its nationalisation. In 1948 Hutchison was appointed Chairman of the South Eastern Gas Board, one of twelve Area Boards established by the 1948 Gas Act to operate as independent bodies, directly responsible to the Government. Hutchison was also made a founder member of the newly constituted Gas Council.

During the 1950s and 1960s Hutchison played a crucial role in reversing the fortunes of the gas industry and extricating it from the hold which the National Coal Board had over it. This was partly done by embracing oil rather than coal as the industry's raw material in order to make production cheaper and less capital intensive. In 1955 Hutchison signed an agreement with British Petroleum (BP) to establish an oil gasification plant next to the company's refinery on the Isle of Grain. This plant came into operation in 1958 and enabled the South Eastern Gas Board to make use of surplus BP oil products. As well as encouraging technological developments, such as the shipment of liquid natural gas to the United Kingdom, Hutchison also took important steps to increase gas sales by promoting the idea of whole-house heating. Despite little encouragement from the gas industry in 1959 he placed the first advertisement for gas central heating in a national journal and within a few years the concept had gained strong support.

At the beginning of 1960 Sir Henry Jones became Chairman of the Gas Council and Hutchison left the South Eastern Gas Board to join him as Deputy Chairman. This proved to be an important partnership since as Sir Denis Rooke wrote in his memoir of Hutchison:

'They made a great double act as they set about building on the industry's newfound confidence, Jones using his cool clinical approach to face the heavy political pressures flowing from Westminster and Whitehall while Hutchison gave full rein to his fertile and original mind over the whole spectrum of the industry's operations.'

Hutchison took on the task of improving the gas industry's public image with a highly successful national advertising campaign which promoted 'High Speed Gas'. He was also a driving force behind the Council's active involvement in seismic surveys in the North Sea, which led to the discovery of

<sup>&</sup>lt;sup>1</sup> 'Sir Kenneth Hutchison, CBE, F.Eng', by Sir Denis Rooke, *Biographical Memoirs of Fellows of the Royal Society* **42**, 1996, p.215

significant natural gas reserves. At the end of 1966 Hutchison retired from the gas industry, although he did work as a consultant to the oil company, Amoco from 1967 to 1975. A large part of Hutchison's retirement was taken up with the writing of his autobiography, which was published in 1987 as *High Speed Gas*. He died on 28 November 1989.

Hutchison was accorded numerous honours and awards. He was awarded the CBE in 1954, a knighthood in 1962 and was elected to the Fellowship of the Royal Society in 1966 and the Fellowhip of Engineering in 1976.

#### DESCRIPTION OF THE COLLECTION

The material is presented as shown in the List of Contents. It covers the period 1900-1989.

Section A, Autobiographical, consists almost entirely of papers relating to the writing of Hutchison's autobiography, *High Speed Gas*. There are drafts of his autobiographical writings and some correspondence regarding the book's publication but the bulk of the material is made up of Hutchison's working papers, which include typescript drafts, original source material, correspondence with friends, family and former colleagues and copies of some of his articles, lectures and speeches. The original source material includes Hutchison family letters from the early 1900s and a little correspondence relating to Hutchison's war work. The section also contains photographic material, some of which relates to the autobiography.

Section B, Lectures, speeches and articles, comprises chronological sequences of addresses by Hutchison, 1948-1971 and published articles, 1960-1985. The speeches and lectures are mainly documented by Hutchison's typescripts, but there is also correspondence regarding several of his more important later addresses. The material relating to Hutchison's articles includes newspaper cuttings of his articles for the *Financial Times* on gas industry developments, written as Deputy Chairman of the Gas Council. There is also correspondence and papers relating to a Royal Society biographical memoir of F.J. Dent and a paper on the history of the gas industry for *Notes and Records of the Royal Society of London*, both written during his retirement.

Section C, Visits and conferences, is very small, covering just one visit and two conferences between 1961 and 1972.

There is also an index of correspondents.

## **ACKNOWLEDGEMENTS**

We are very grateful to Mr Martin for making the papers available for cataloguing.

Alan Hayward Peter Harper BATH 1999 **SECTION A** 

## **AUTOBIOGRAPHICAL**

A.1-A.215

A.1-A.203

**AUTOBIOGRAPHY** 

A.1-A.18

Drafts

A.19-A.25

Correspondence

A.26-A.177

Working papers

A.178-A.190

Background material

A.191-A.203

Illustrations

A.204-A.215

MISCELLANEOUS BIOGRAPHICAL

#### A.1-A.203

#### **AUTOBIOGRAPHY**

Hutchison published his autobiography *High Speed Gas* in 1987. The first eight chapters were based on what he refers to in the book's Preface as 'four monographs written for circulation among friends and relatives'. These were written during the early to mid 1980s and copies of three of them can be found at A.16, A.18 and A.53. By 1985 D.R. Martin, the son of Hutchison's friend Sir John Martin, had joined Hutchison in the editing and preparation of the book and in early 1987 a publisher was found.

Hutchison kept no diaries and very few letters but in writing the book he was able to draw on the reminiscences of friends, family and former colleagues and made extensive use of his own lectures, speeches and articles.

The arrangement of the book does not appear to have been decided until very close to publication. It should be noted that the chapter numbers in the latest typescript drafts do not match those in the published book.

#### A.1-A.18

#### **Drafts**

ca 1982-1987

This material consists of typescript drafts for *High Speed Gas* and copies of some of Hutchison's earlier monographs written for circulation among his friends and relatives.

A.1, A.2

'High Speed Gas: An Autobiography by Sir Kenneth Hutchison FRS', two volume bound typescript so entitled (contains a small number of annotations and intercalated manuscript notes), 1987.

A.1

328pp with illustrations, containing chapters numbered 1-7 and 10.

A.2

45pp with illustrations, containing chapters numbered 9 and 11.

A.3-A.5

Typescripts (annotated) found together, consisting of parts of various chapters, ca 1987.

3 folders.

A.6

'Various odd papers', miscellaneous material relating to *High Speed Gas*, so inscribed on first page, *ca* 1987.

Includes typescript list of chapters; 3pp typescript notes for 'Chapter 6'; manuscript notes.

A.7	'Chapter 7 - The Methane Pioneers', 15pp incomplete typescript (annotated) so entitled, <i>ca</i> 1987.
A.8-A.15	'Copies of Memoirs First Draft'. Contents of folder so inscribed, divided into eight for ease of reference, [between 1985 and 1987].
	The material consists of photocopies of typescript drafts (some annotated in places). The titles are given in the entries below.
A.8	List of chapters and their sections, 3pp.
A.9	'Chapter 1 - Myself when young', 10pp.
A.10	'Chapter 2 - Going to work for gas', 11pp.
9	
A.11	'Chapter 4 - Profits are made in the retort house - or are they?', 11pp.
A.12	'Chapter 12 - North Sea prospectors', 12pp.
A.13	'Chapter 13 - The North Sea II - Discovery", 12pp.
A.14	'Chapter 14 - The future of the gas industry', 11pp.
A.15	'Chapter 15 - Unfinished business', 8pp.
A.16	'Hydrogen and other compressed gases at the Air Ministry 1940-1945: A record by Sir Kenneth Hutchison', 34pp typescript with illustrations so
	entitled, bound with ribbon, card covers, ca 1983.
	This monograph formed the basis of Chapters 7 and 8 in High Speed Gas.

A.17

'Oxygen and other Compressed Gases', 8pp typescript by Hutchison so entitled on the first page, bound with ribbon, card front cover, paginated 27-34. February 1983.

This small booklet was taken directly from Hutchison's longer account 'Hydrogen and other compressed gases at the Air Ministry 1940-1945' (see A.16).

A.18

'A slow train to Oxford: A memoir by Sir Kenneth Hutchison', 37pp typescript with illustrations so entitled, bound with ribbon, card covers, ca 1982.

This monograph formed the basis of Chapters 1 and 2 in High Speed Gas.

#### A.19-A.25

## Correspondence

1985-1989

The correspondence was kept together in two folders and relates almost entirely to the writing and publication of Hutchison's autobiography, High Speed Gas.

A.19

1985 May-October.

A.20

1985 November.

A.21

1986 December.

A.22

1987 January-March.

Includes copy of a letter from Hutchison to The Times re 'Research,

Development and Design', 7 March 1987.

A.23

1987 April-May.

Includes 3pp typescript notes by C. Ducker entitled 'Advertising During the Changeover to Natural Gas', 5 May 1987.

A.24

1987 June-October.

Includes invitation lists for the launching of High Speed Gas.

A.25

A.26

## A.26-A.177 Working papers

1988-1989.

1900-1988

This material was brought together by Hutchison during the writing of his autobiography. It includes some original source material, manuscript notes, typescript drafts, correspondence with friends, and former colleagues, copies of his articles, lectures and speeches and other background material.

The papers were kept in boxfiles, folders and envelopes, labelled by chapter number or subject.

A.26-A.33 'Chapter 1 A Slow Train to Oxford'. Contents of boxfile so labelled, divided into eight for ease of reference.

.

'An undergraduate at Oxford in the nineteen twenties', 19pp typescript by

Hutchison so entitled, bound with ribbon, card covers, January 1980.

A.27 (Chapter 3 Pursuit of Science', 21pp (annotated) typescript by Hutchison so

entitled, bound with ribbon, with manuscript inserts by E.J. Bowen, ca 1980.

A.28 Letter of thanks by Sir Cyril Hinshelwood for Hutchison's congratulations on

his election as President of the Royal Society, 9 December 1955, with

typescript transcription.

A.29, A.30 Correspondence relating to Hutchison's writings about his time in Oxford,

1979-1984.

2 folders.

A.31 Miscellaneous manuscript notes by Hutchison.

A.32 Offprints of articles by Hutchison, 1925-1931.

A.33 Printed background material etc.

A.34-A.52	'Chapter 2 Breakfast at Lochar House The Hutchisons of Dalgig Family papers'. Contents of boxfile so labelled, divided into twenty for ease of reference.
A.34-A.37	Drafts by Hutchison, ca early 1980s.
A.34	'The Hutchisons of Dalgig: A Family History by Sir Kenneth Hutchison', 7pp typescript with illustrations so entitled, bound with ribbon, paginated 1.3 to 1.9.
A.35	'The Hutchisons of Dalgig', 14pp (annotated) typescript so entitled.
A.36, A.37	Four incomplete typescript drafts mostly <i>re</i> Hutchison family history.
A.38	Typescript drafts of the Hutchison family tree (some annotated), with related correspondence etc, 1979.
	This material was found together in a plastic wallet.
A.39-A.43	Correspondence found loose in the boxfile, relating to Hutchison's research into his family history, 1979-1985.
	5 folders.
A.44	Miscellaneous manuscript notes etc, found loose in the boxfile.
A.45-A.50	Hutchison family papers, 1900-1908, n.d. (with typescript transcripts of two documents).
	6 folders.
	Includes letters from James Hutchison (Sir Kenneth's uncle) to his mother (Mary Louisa) <i>re</i> his travels in India and Western China, 1904, 1905.
A.51, A.52	Background material.

2 folders.

A.53-A.62	'Chapter 3 1926-1940'. Contents of boxfile so labelled, divided into ten for ease of reference.
A.53	'Chapter 3 - A view from the gasworks', 35pp typescript so entitled, $\it ca$ early 1980s.
	This draft formed the basis of Chapters 5 and 6 in High Speed Gas.
A.54	'The London Research Station of the British Gas Corporation. A Personal Memoir. 1926-1939', 4pp typescript so entitled, <i>ca</i> 1978.
	A copy of this was sent to G.S. Cribb in April 1978.
A.55	'Luncheon for Dr. Hollings. 23 June 1977', 6pp (annotated) typescript speech notes by Hutchison so entitled.
A.56	Correspondence between Hutchison and G.S. Cribb <i>re</i> the latter's paper on the history of the Fulham Laboratories for the 44th Autumn Meeting of the Institution of Gas Engineers (IGE), February-July 1978.
A.57	'50 Years of Research at Fulham by G.S. Cribb', 3pp typescript by Hutchison so inscribed.
	This appears to be a typescript of Hutchison's contribution to a discussion on Cribb's paper at the IGE's 44th Autumn Meeting in 1978.
A.58	Programmes for the 1st, 2nd and 5th Chemical Dinners of the Gas Light & Coke Company Engineer's Department, 1926-1930.
A.59, A.60	Copies of published articles and speeches by Hutchison, 1929-1968.
	2 folders.
A.61, A.62	Background material etc.
	2 folders.

'The Air Ministry Chapter 4 1940-1945'. Contents of boxfile so inscribed, A.63-A.78 divided into sixteen for ease of reference. 'Lord Ridley at the Air Ministry 1940-1942', two typescripts by Hutchison so A.63 entitled, ca 1982. 8pp with illustrations; 7pp with illustration, bound with ribbon, inscribed '1st Draft' on front page. Hutchison succeeded Viscount Ridley as Director of Hydrogen Production at the Air Ministry in 1942. 'Lord Ridley - memoir by W.K.H January 1966'. Contents of folder so A.64-A.66 labelled, divided into three for ease of reference. Following a request in 1965, Hutchison agreed to write a memoir of Viscount Ridley's time at the Air Ministry. This was to be left with Ridley's family so that it could be used in any future account of his life. Correspondence re the memoir; typescript drafts. 1965-1967. A.64, A.65 2 folders. Manuscript notes by Hutchison; background material. A.66 'BOC & RAF 1944'. Contents of folder so inscribed, divided into four for ease A.67-A.70 of reference. Correspondence relating to Hutchison's writings on the supply of oxygen to A.67-A.69 Air Ministry establishments during the Second World War; correspondence re the use of liquid nitrogen for fire fighting on naval ships; etc. 1981-1985. 3 folders. Background material. A.70 Correspondence, found loose in the boxfile, relating to Hutchison's memoir A.71, A.72 of Viscount Ridley and his writings on the Directorate of Hydrogen Production, 1981-1982, n.d.

2 folders.

A.73	Miscellaneous manuscript notes etc.
A.74, A.75	Correspondence, 1943-1945.
	2 folders.
	Includes correspondence relating to Hutchison's release from the Air Ministry, 1944-1945; letter of application for position of General Manager, Portsmouth and Gosport Gas Company, 6 September 1945.
A.76	The Gas Industry and the Balloon Barrage, by Hutchison, Institution of Gas Engineers, 1945.
A.77	Two newspaper cuttings <i>re</i> Hutchison, 1967.
A.78	Background material.
A.79-A.107	'A Fresh Start Chapter 5 & 6 1945-1949'. Contents of boxfile so labelled, divided into twenty nine for ease of reference.
A.79-A.82	Drafts.
A.79	'Field's Analysis', 2pp typescript by Hutchison so entitled, July 1980.
A.80	'Chapter 7 Field's Analysis', 14pp (annotated) typescript so entitled.
A.81	'Chapter 5 Field's Analysis', 17pp (annotated) typescript so entitled.
A.82	'Chapter 5 A fresh start', 13pp (annotated) typescript with illustration so entitled.

A.83-A.86 Corresponden

Correspondence found loose in the boxfile, mostly relating to the writing of Hutchison's autobiography, 1969-1970, 1979-1986.

4 folders.

Includes correspondence *re* 'Field's Analysis'; correspondence and 11pp manuscript memorandum by L.W. Blundell *re* the Beckton Products Works, 1985-1986.

A.87

Manuscript notes, graphs and tables found loose in the boxfile.

A.88, A.89

Family papers etc.

A.88

Two letters from Hutchison to his wife Dorothea, sent from Limerick, Ireland, March 1942; 23pp letter from Hutchison to his daughter Ann, written on board the *Queen Elizabeth*, 18-24 April 1947.

These letters were found together in an envelope.

A.89

Photograph of [?Dorothea Hutchison], probably taken during Second World War; telegram to Hutchison, January 1947; ration books, 1953/1954.

A.90

Co-partners Magazine (published by the Gas Light and Coke Company), November 1946.

Includes article by Hutchison *re* his job as Controller of By-Products, pp 384-388.

A.91-A.98

Speeches by Hutchison, 1955-1959.

A.91

Manchester and District Section of the Institution of Gas Engineers, Liverpool, 8 July 1955.

6pp (annotated) typescript.

A.92

President's Luncheon, 93rd Annual General Meeting of the Institution of Gas Engineers, London, 29 May 1956.

5pp typescript.

A.93	Offprint of Presidential Address, 93rd Annual General Meeting of the Institution of Gas Engineers, London, 29 May-1 June 1956.
A.94	Chairman's Statement to the Consultative Council of the South Eastern Gas Board, 4 June 1957.
	10pp (annotated) typescript.
A.95	Summer Meeting, London and Southern Section of the Institution of Gas Engineers, Eastbourne, E. Sussex, 8 July 1958.
	8pp typescript.
A.96	Joint Meeting, Consultative Council and Board Representatives [of the South Eastern Gas Board], 2 December 1958.
	12pp (annotated) typescript.
A.97	Opening of the Extension to the Engineering Hall, Museum of Science and Industry, Birmingham, 17 December 1958.
	5pp typescript.
A.98	Chairman's Address, Eighth Area Conference of Joint Consultative Committees of the South Eastern Gas Board, 14 December 1959.
	5pp typescript.
A.99	'I.G.E. Reports of visits by President to District Sections and Junior Associations'. Contents of folder so inscribed, 1955-1956.
	Hutchison was President of the Institution of Gas Engineers, 1955-1956.
	Cuttings from Gas Journal, Gas Times and Gas World.
A.100	Article by Hutchison entitled 'Gas from oil by catalyst method', <i>The Times</i> , 2 June 1958.
	This article was part of supplement by <i>The Times</i> on 'The Future of Gas'.

A.101-A.107	Background material.
	7 folders.
	Includes copies of journals containing pictures of Hutchison and references to him.
A.108-A.112	'Research, Development and Design and other papers Chapter 8'. Contents of folder so inscribed, divided into five for ease of reference.
	'Research, Development and Design' is the title of Chapter 12 in <i>High Speed Gas</i> .
A.108	Correspondence and papers <i>re</i> E. Thornton's paper on 'British Gas research scholarships, 1953-1981', 1981; letter from Hutchison to the editor of the <i>Daily Telegraph re</i> High Speed Gas, 1988.
A.109	'Press cuttings - Visit of Duke of Edinburgh to Annual General Meeting of the Institution of Gas Engineers 29.5.56'. Contents of folder so inscribed, May-June 1956.
A.110, A.111	Speeches by Hutchison.
A.110	President's Luncheon, 93rd Annual General Meeting of the Institution of Gas Engineers, London, 29 May 1956.
	5pp typescript draft.
A.111	Printed versions of addresses by Hutchison, 1956-1966.
A.112	Background material.
A.113-A.118	'Aims of Research Sundry Papers Chapter 8'. Contents of folder so inscribed, divided into six for ease of reference.
A.113	Manuscript notes etc.

A.114 'Research Development and Design' 15pp typescript address with figures by Hutchison so entitled, for a Joint Meeting of the Eastern and Western Districts of the Scottish Junior Gas Association, 6 March 1954.

The front page is annotated 'Copy as sent to Gas Press'.

A.115 Reprint of paper by Hutchison et al, 1963.

A.116 Newspaper article entitled 'Gasmen look to new boom', Observer, 11 October 1964.

Includes picture of Hutchison and references to him.

A.117 Financial Times supplement on 'The Gas Industry', 17 November 1964.

Includes article by Hutchison entitled 'Putting research to work'.

A.118 Background material.

'Wilson Reports to Committee on Coal Derivatives Chapter 8'. Contents of folder so inscribed, divided into three for ease of reference. 1959-1960, 1987, n.d.

> This material relates to the Committee on Coal Derivatives, appointed by the Minister of Power in 1959. The Chairman was A.H. Wilson and Hutchison was a Committee member.

> Committee papers, 1959-1960; Report of the Committee on Coal Derivatives, HMSO, 1960; etc.

A.122-A.128 'Chapter 11 Canadian Gas Association'. Contents of folder so inscribed, divided into seven for ease of reference.

> These papers relate almost entirely to Hutchison's attendance and address at the 59th Annual Meeting of the Canadian Gas Association, Murray Bay, Quebec, Canada, 22-26 June 1966, where he spoke on 'The Future of the Gas Industry in Great Britain'. This speech was published in full in the Journal of the Institution of Gas Engineers and appears to have been used as the basis of the final chapter in High Speed Gas.

A.119-A.121

A.122-A.124	Correspondence and papers <i>re</i> Hutchison's participation at the Annual Meeting of the Canadian Gas Association etc, April-September 1966.
	3 folders.
A.125	Correspondence <i>re</i> Hutchison's paper and its publication, July-September 1966.
A.126	30pp (annotated) typescript of Hutchison's address with illustrations, card covers, inscribed 'as delivered' on front; typescript lists of slides.
A.127	Reprint of Hutchison's address.
A.128	Printed background material.
A.129-A.177	Subject files, arranged in alphabetical order of title.
A.129-A.138	'The Gas Council & North Sea Gas & Gas Council Research Committee'. Contents of envelope so inscribed, divided into ten for ease of reference.
A.129	'For the Record - How British Gas went into the North Sea', copy of 10pp typescript by Hutchison so entitled, <i>ca</i> 1980s.
A.130	'Gas Council and the North Sea: Summary of Events'. Contents of folder so entitled.
	Memoranda and typescript notes, 1965.
A.131	'The Gas Council and the North Sea. Note by the Deputy Chairman', 4pp typescript so entitled, with appendices and illustration, January 1966.
	This note by Hutchison was kept in a folder marked 'Confidential and not for publication'.

A.132	'The Gas Council and the North Sea. Note by the Deputy Chairman', 4pp typescript so entitled, February 1966.
	This note by Hutchison was kept in a folder marked 'Deputy Chairman's paper on the North Sea revised for wider circulation'.
A.133	Correspondence <i>re</i> arrangements for Hutchison's visit to the Engineering Research Station, Killingworth, Tyne & Wear and <i>re</i> the history of its establishment, May-August 1982.
A.134-A.137	Copies of Gas Council Research Committee minutes for 1964-1966; 3pp manuscript and 1p typescript notes on the Research Committee minutes found therewith.
	4 folders.
A.138	Miscellaneous.
A.139-A.150	'Gas goes natural'. Contents of folder so labelled, divided into twelve for ease of reference.
A.139, A.140	Correspondence and papers relating to V.C. Illing, 1969-1970.
	2 folders.
	Includes 3pp typescript contribution by Hutchison to a Royal Society Memoir for Illing, May 1970.
A.141-A.147	Speeches by Hutchison, 1962-1966, n.d.
A.141	'Why Gas ?', Electrical Industries Club, 9 October 1962.
	5pp typescript.
A.142	British Chemical Plant Manufacturers Association Annual Dinner, 31 October 1962.
	6pp typescript.
	Copy of 6pp typescript speech given at the same occasion, mentioning Hutchison.

A.143	'Doubling gas sales in the next ten years', Brooklands Course, 19 February 1964.
	3pp typescript notes.
A.144	Administrative Staff College, Henley-on-Thames, Oxfordshire, 14 May 1964.
	9pp typescript, annotated on the first page with the heading 'Accountability'.
A.145	Opening Banquet, International Chemical and Petroleum Engineering Exhibition, [London], 14 June 1966.
	4pp typescript entitled 'Notes for Sir Kenneth Hutchison'.
A.146	Untitled 5pp typescript, n.d.
A.147	Printed copies of addresses by Hutchison, 1965-1966.
A.148, A.149	Newspaper cuttings, 1967-1969.
	2 folders.
A.150	Manuscript notes; miscellaneous.
A.151-A.156	'LNG' [Liquid Natural Gas]. Contents of folder so labelled, divided into six for ease of reference.
A.151	Correspondence <i>re</i> a reunion of the 'Methane Venturers' at the Savoy, London and <i>re</i> Hutchison's autobiography, 1981.
A.152	Various typescript draft pages <i>re</i> the 'Methane Venturers' for Hutchison's autobiography; typescript and manuscript notes. 1980s.
A.153	Letters and photographs, 1959, 1963, 1964, n.d.

A.164

#### **Autobiographical**

A.154 27pp typescript re 'History of Methane Importation Scheme', 1964. The author is not given, but the typescript is accompanied by a Gas Council memorandum from the Deputy Chairman's office. A.155 'Gas Council / Conch visit to Nigeria 18th to 22nd August, 1965', 5pp typescript report by Hutchison so entitled, September 1965. Miscellaneous, including menu for a dinner in Hassi-Messaoud, Algeria on 4 A.156 March 1961 (signed by participants). A.157-A.159 'Algeria - UK Methane Importation Scheme'. Contents of printed folder so entitled, divided into three for ease of reference. This material was found with the folder inscribed 'LNG' (see A.151-A.156) and relates to the same subject. Most of the papers were produced by the Gas Council and Conch Methane Services Ltd. Includes typescript papers re a visit to Algeria 12-13 November 1964; typescript reports re the Algeria - UK Methane Importation Scheme, 1964; manuscript notes by Hutchison, n.d. 3 folders. A.160-A.164 'Meetings with Minister / Ministry'. Contents of folder so inscribed, divided into five for ease of reference. A.160 Manuscript notes by Hutchison etc. A.161 Typescript notes. Photocopied extracts from minutes of meetings between the Gas Council A.162, A.163 and the Ministry of Power for 1962-1966. 2 folders.

Background material, including reprint of speech by Hutchison.

'North Sea'. Contents of folder so inscribed, divided into two for ease of reference.
'A prospect for gas', 6pp typescript speech by Hutchison, given to the Fuel Luncheon Club, 21 March 1961.
Background material, including reprints of speeches by Hutchison.
'Rough Field'. Contents of folder so inscribed, divided into eleven for ease of reference.
Correspondence <i>re</i> the Rough Field and its use as a gas storage facility. 1971-1973.
9 folders.
Manuscript graph by Hutchison.
Background material.
Background material 1944-1979, n.d.
'LNG - Extracts from Gas Council Minutes July 1954-November 1964. Also Gas Council 1948 South East Gas Board 1949'. Contents of folder so inscribed, divided into eight for ease of reference.
Photocopies of minutes of Gas Council meetings, 1948-1949.  4 folders.
Photocopies of minutes of South Eastern Gas Board meetings, January-February 1949.

A.194

#### **Autobiographical**

A.183-A.185 Photocopied extracts of minutes of Gas Council meetings, 1954-1964 (includes some intercalated manuscript notes). The photocopied extracts all relate to the subject of 'imported natural gas'. 3 folders. A.186 'Progress report on visit to U.S.A. April 1958 Liquid Methane Project', 53pp bound typescript with illustrations, by L.J. Clark, North Thames Gas Board, card covers, May 1958. The front cover is marked 'Copy No. 2'. 2pp typescript memorandum from P.O. Lewis to J.V. Licence re Hutchison's A.187 forecasts in his address, 'The Future of the Gas Industry in Great Britain', given in June 1966 to the Canadian Gas Association. November 1979. A.188-A.190 Printed background material, 1944-1985, n.d. 3 folders. A.191-A.203 Illustrations 'High Speed Gas illustrations'. Contents of envelope so inscribed, divided A.191-A.196 into six for ease of reference. Photographs reproduced in High Speed Gas have not been retained in the collection. A.191 Photographs and reproduction of Hutchison's family, mounted on card, ca 1900-ca 1909. Photographs taken at Corpus Christi College, Oxford, mounted on card, A.192 1924, 1925. A.193 Photograph of Hutchison on a yacht, with accompanying negatives, ca 1980s.

Four photographs of Sir Denis Rooke, n.d.

A.195	Menu and seating plan for a dinner on 28 June 1904 given by D. Milne-Watson at the Savoy Hotel, London, to meet Corbet Woodall; letter from Hutchison to Sir Michael Milne-Watson relating to the preceding, June 1982.
A.196	Miscellaneous illustrative material.
A.197-A.202	Contents of envelope relating to Hutchison's autobiography.
A.197	Photograph of 'No.3 Platoon Edinburgh Academy O.T.C.', 1926, mounted on card with a picture of the Edinburgh Academy in 1828.
	Hutchison was a member of the Platoon during his years at the Edinburgh Academy.
A.198	Family photograph, <i>ca</i> 1920s; photograph of [?Dorothea Hutchison], probably taken during Second World War.
A.199	Two photographs of low flying balloon barrages, protecting Allied forces 'on the beaches', [1944], mounted on card.
A.200	Photograph of Hutchison shaking hands with Prince Philip, Duke of Edinburgh [1956].
	The Duke of Edinburgh addressed the Annual General Meeting of the Institution of Gas Engineers in 1956, while Hutchison was its President.
A.201	Photocopies of photographs taken onboard a ship, showing Hutchison and others [?1959].
	These photographs appear to relate to a visit to the Isle of Grain, by Richard Wood MP, Minister of Power, who was accompanied by his wife Diana (see p.224 of <i>High Speed Gas</i> for a description of this event).
A.202	Photograph mounted on paper, labelled 'Methane Venturers Reunion at the Savoy Hutchison, McCollum (Mac), Wood Prince, Milne-Watson', 1981.
A.203	Eight photographs found in envelope inscribed 'Lord Mills at the Isle of Grain 14.11.58' and 'Chapter 6'.

A.204-A.215 MISCELLANEOUS BIOGRAPHICAL

A.204-A.210 Letters of congratulation on Hutchison's appointment as Deputy Chairman of

the Gas Council. August 1959-February 1960.

Arranged in alphabetical order.

A.204 A-B.

A.205 C-E.

A.206 F-H.

A.207 I-M.

A.208 N-R.

A.209 S, T.

A.210 U-W.

A.211 Miscellaneous loose correspondence, 1968, 1984, 1987.

Includes 2pp memorandum by Hutchison re the natural gas position in

Western Europe projected to 1975, with 3pp tables, 1968.

A.212-A.215 Photographs. A.212 Photograph album marked 'Methane Pioneer' and 'W.K.H' on front cover, 1959. An explanatory note in the album states that the Methane Pioneer. 'Left Lake Charles, USA on 28th January, 1959, bound for Canvey Island, Great Britain, with the first cargo of Liquid Methane ever to be carries across the high seas. This Vessel arrived at Canvey Island, where these photographs were taken, on 20th February 1959'. 'Various photographs & covering letters'. Contents of folder so inscribed, A.213, A.214 divided into two for ease of reference. A.213 Photographs of Hutchison and others etc, ca 1950s-ca 1980s. A.214 Itinerary, guest list etc for the launch of the Methane Progress at Belfast, 19 September 1963. A.215 Two photographs taken at a small dinner attended by Hutchison, mounted on card stamped 'The Electricity Council' on front and back, n.d. The two photographs are identical, with the exception of a figure who has

been inserted into one of them.

# B.1-B.93 B.1 LIST B.2-B.70 LECTURES AND SPEECHES B.71-B.93 ARTICLES

B.1	LIST
B.1	'List of publications, notes for speeches etc.', 7pp typescript so entitled covering 1926-1968.
B.2-B.70	LECTURES AND SPEECHES 1948-1971
	Hutchison made extensive use of his speeches and lectures during the writing of his autobiography and a number can be found in Section A (see A.55, A.57, A.60, A.91-A.98, A.110, A.111, A.122-A.128, A.141-A.147, A.165).
B.2	'The by-products of coal carbonisation', Fuel Luncheon Club, May 1948.
	13pp typescript.
D 0	'Effect of load variation on posts' Institution of Cas Engineers Autumn
B.3	'Effect of load variation on costs', Institution of Gas Engineers Autumn Research Meeting, November 1952.
	4pp typescript contribution to discussion.
B.4	South Eastern Gas Board Meeting with representatives of Joint Consultative Committees, Croydon, London, 15 January 1953.
	6pp typescript.
B.5	Gas Sales and Service Conference, opening session, 11 March 1953.
5.5	4pp typescript (incomplete), on small notepaper.
B.6	'South eastern gas prices', Statement to the South Eastern Gas Board Consultative Council, 7 April 1953.
	4pp typescript (incomplete), on small notepaper.
D.7	Dublish Con Chaff Association Associal Disease 9 Mov 1050
B.7	British Gas Staff Association Annual Dinner, 8 May 1953.
	6pp typescript, on small notepaper.

B.8	Inauguration of Gas Supply to Crawley, W. Sussex, 14 May 1953.
	7pp and 3pp typescripts, on small notepaper.
B.9	Proposing toast, Wales and Monmouth Section of the Institution of Gas Engineers, [Carmarthen], 10 September 1953.
	3pp manuscript, on small notepaper.
B.10	Speech of welcome to guests, International Road Tar Conference, London, 24 September 1953.
	8pp typescript, on small notepaper.
B.11	Chairman's Opening Remarks, South Eastern Gas Board's Second Area Conference, Croydon, London, 19 October 1953.
	6pp typescript.
B.12	South Eastern Gas Board Joint Consultative Committee Conference, Croydon, 7 December 1953.
	4pp typescript.
B.13	'Research, development and design', Joint Meeting of the Eastern and Western Districts of the Scottish Junior Gas Association, 6 March 1954.
	17pp (annotated) typescript with figures, bound with black tape, card covers.
B.14	Opening of the South Eastern Gas Board's new plant at Portslade, E. Sussex, 3 May 1954.
	7pp typescript, on small notepaper.
D.45	Duraidant's Charach Dritish Dood Toy Association Annual Dinney CC Ostabar
B.15	President's Speech, British Road Tar Association Annual Dinner, 26 October 1954.
	10pp typescript on small notepaper.

B.16	Speech of thanks on behalf of guests, Coke Oven Managers' Association Annual Dinner, 4 November 1954.
	4pp typescript, on small notepaper; related newspaper cutting.
B.17	Contribution to discussion, Institution of Gas Engineers Autumn Research Meeting, November 1954.
	5pp typescript <i>re</i> P.C. Agron's paper on the 'Research Laboratories of the Gas Industry in France'.
B.18	Women's Gas Federation Annual General Meeting, Eastbourne, E. Sussex, May 1955.
	5pp typescript draft.
B.19	Reply to a toast, Institution of Gas Engineers Annual General Meeting, Portsmouth and Southsea, 24 May 1955.
	5pp typescript.
B.20	Proposing toast, Paviors' Dinner, 28 July 1955.
	7pp typescript, on small notepaper.
B.21	Proposing toast, [Institution of Gas Engineers] Autumn Research Luncheon, [?Leeds], 22 November 1955.
	12pp typescript, on small notepaper.
B.22	Chairman's Address, Meeting of the South Eastern Gas Board's Joint Consultative Committees, Croydon, London, 14 December 1955.
	7pp typescript.
B.23	Contribution to discussion, Midlands Section of the Institution of Gas Engineers, 17 February 1956.
	2pp (annotated) typescript re a paper by W.J. Cutler.

B.24	Opening Statement by Chairman, [South Eastern Gas Board] Conference, 16 March 1956.
	5pp typescript.
B.25	Opening of new showroom, Crawley, W. Sussex, 27 September 1956.
	7pp typescript, on small notepaper.
B.26	Chairman's Address, South Eastern Gas Board Area Conference, 29-30 October 1956.
	6pp typescript.
B.27	Chairman's Remarks, [South Eastern Gas Board] Staff Conference, 24 October 1958.
	9pp typescript.
B.28	'Research and development in the gas industry', North Western Branch of the Institution of Chemical Engineers, 29 January 1960.
	11pp typescript with 2pp references.
B.29	Proposing toast, Annual Dinner of the North Western Branch of the Institution of Chemical Engineers, 29 January 1960.
	2pp typescript.
B.30	Speech of welcome to the guests, Gas at Work in Industry Exhibition Luncheon, [?London], 1 March 1960.
	2pp typescript.
B.31	Proposing toast, Institution of Chemical Engineers Annual Dinner, 12 April 1960.
	2pp typescript.

B.32	Chairman's Opening Remarks, International Symposium on Distillation, Brighton, 4 May 1960.
	1p typescript.
B.33	Proposing toast, Institution of Chemical Engineers Annual Dinner, [?London], 25 April 1961.
	4pp typescript.
B.34	Speech at Junior Institution of Engineers Annual Dinner, London, 28 April 1961.
	3pp typescript.
	Journal of the Junior Institution of Engineers, June 1961.
	Contains an account of the Annual Dinner.
B.35	Contribution to session on 'Technical advances likely in the next ten years', International Conference of Heating and Ventilating Engineers, London, 29 September 1961.
	3pp typescript, with newspaper cuttings re Hutchison's speech attached.
B.36	'The aims of research in the gas industry', given to science teachers at a course arranged by the Shell Chemical Company Ltd, 11 April 1962.
	20pp typescript, with list of slides.
B.37	Speech to the Women's Gas Federation Annual General Meeting, 30 April 1963.
B.38	Speech to the Houldsworth Society, 14 November 1963.
	1p (incomplete) typescript.
	See A.111 for a reprint from <i>Gas Journal</i> of this speech entitled 'The Progress of Gas Research'.

B.39	'Public image and private eye', Executive Association of Great Britain, Ltd, 28 November 1963.
	5pp typescript.
B.40	'Management in a nationalised industry', given at a course arranged by the Treasury for senior civil servants, Peterhouse, Cambridge, 30 June 1964.
	30pp typescript.
B.41	'Creative marketing', Joint Meeting of the London and Southern Section of the Institution of Gas Engineers and the London and Southern Junior Gas Association, 16 October 1964.
	Reprint from Gas Journal.
B.42	'CH <sub>4</sub> ', Fuel Luncheon Club, [London], 19 January 1965.
	10pp typescript.
B.43	Speech at Nuclear Engineering Society Dinner, Risley, Lancashire, 15 February 1965.
	6pp typescript.
B.44-B.48	'Searching for gas and oil under the North Sea', Royal Society of Arts, London, 12 May 1965.
B.44	19pp typescript, with figures.
B.45	Offprint from Journal of the Royal Society of Arts, including transcript of the discussion following Hutchison's lecture.
B.46, B.47	'Correspondence with Royal Society of Arts'. Contents of folder so labelled, divided into two for ease of reference.
B.46	Correspondence re arrangements and publication, 1964-1965.

B.47	Newspaper cuttings re Hutchison's speech, May 1965.
B.48	'Correspondence other than with Royal Society of Arts'. Contents of folder so labelled.
	Correspondence re arrangements and publication etc, March-June 1965.
B.49, B.50	'International & Chemical Petroleum Engineering Exhibition - Opening Banquet, 14.6.66'. Contents of folder so labelled, divided into two for ease of reference.
	Typescript draft lecture material (annotated by Hutchison).
	2 folders.
	The material in B.50 appears to relate to Hutchison's speech to the Fuel Luncheon Club on 22 November 1966 (see B.53).
B.51	Contribution to discussion, Institution of Gas Engineers Autumn Research Meeting, 14 November 1966.
	4pp typescript <i>re</i> 'the central research effort of the Gas Industry in relation to present engineering problems'.
B.52	Contribution to discussion, Institution of Gas Engineers Autumn Research Meeting, 16 November 1966.
	4pp typescript <i>re</i> Gas Council Research Communication GC 136 'Catalysis - Art or Science?'.
B.53	'Interim Report', Fuel Luncheon Club, 22 November 1966.
	8pp (annotated) typescript.
B.54	'The North Sea', Pipe Line Contractors Association Convention, Hollywood, Florida, USA, 27 January 1967.
	10pp typescript, with figures.

B.55	Lecture to Imperial College Chemical Engineering Society, [London], 17 February 1967.
	15pp (annotated) typescript re the North Sea, with list of slides.
	The typescript is paginated 1-9 and then a-f and may have been produced using material from previous speeches.
B.56-B.59	'North Sea - Bubble or Bonanza?', Discourse given at the Royal Institution of Great Britain, London, 11 May 1967.
B.56	19pp (annotated) typescript, with list of slides, bound with card covers.
B.57-B.59	Correspondence re arrangements etc, 1966-1967.
	3 folders.
B.60	'Natural Gas in Europe', Australian Gas Association Convention, Melbourne, Australia, 9 October 1967.
	13pp typescript with figures, bound with card covers.
B.61	Speech at Institution of Gas Engineers Research Luncheon, 21 November 1967.
	5pp typescript.
B.62	Contribution to discussion, Institution of Gas Engineers Autumn Research Meeting, 21 November 1967.
	3pp typescript <i>re</i> new catalysts.
B.63-B.66	'New sources of natural gas for Britain', Society of Chemical Industry Jubilee Memorial Lecture, March 1968.
	Hutchison gave the Jubilee Memorial Lecture to the Society of Chemical Industry's London Section on 4 March, to the Manchester Section on 21 March and to the Newcastle Section on 22 March.
B.63	18pp typescript.

B.64-B.66 Correspondence re arrangements etc, 1966-1968. 3 folders. Presidential Address, Society of British Gas Industries, 2 May 1968. B.67 8pp typescript, on A5 notepaper. B.68 Presidential Address, Clean Air Conference, Eastbourne, E. Sussex, 21 October 1969. Printed copy of address. B.69 Lecture at Salford University, 9 November 1971. 14pp typescript, with list of slides. B.70 'A view from the shore', n.d. 4pp typescript and manuscript draft. The contents of this draft suggest it was written during the 1960s.

# B.71-B.93 ARTICLES Reprints of papers by Hutchison and cuttings of newspaper articles by him can also be found in Section A (see A.32, A.59, A.60, A.76, A.100, A.115, A.117). B.71 'A changing pattern of gas manufacture', Financial Times, 15 November 1960. Newspaper cutting. Expanding our markets. The scope in new and existing fields', Financial Times, 7 November 1961.

Newspaper cutting.

B.73	'Looking ahead in research', Financial Times, 13 November 1962.	
	Newspaper cutting.	
B.74	'New trends in production', Financial Times, 19 November 1963.	
	Newspaper cutting.	
B.75	Invitation (accepted) to write three short articles on the gas industry for a Special Supplement to be published on 2 October 1964 by <i>The Times</i> , August 1964.	
B.76	'The North Sea exploration', Financial Times, 23 November 1965.	
	Newspaper cutting.	
B.77-B.85	'Frederick James Dent', with D. Hebden, <i>Biographical Memoirs of Fellows of the Royal Society</i> , <b>20</b> (1974).	
B.77-B.81	Correspondence and papers relating to the writing, publication and distribution of the memoir etc, 1973-1976.	
	5 folders.	
B.82	Letters sent to Hutchison in response to the memoir, February-May 1975.	
B.83	Copies of letters sent to D. Hebden in response to the memoir, with covering letter from Hebden to Hutchison, May 1975.	
B.84	Typescript and manuscript contributions for the memoir, copies of obituaries of Dent etc, 1973-1974.	
B.85	Photograph [of Dent], n.d.	
B.86	'Towards a new gas industry', letter to [The Times], 22 December 1983.	
	Photocopy of the published letter.	

B.87, B.88	'Gas and gaiters', letter to <i>The Times</i> , 13 October 1984.
B.87	Newspaper cuttings of Hutchison's letter and a response to it.
B.88	Correspondence arising from the letter etc, 1984-1985.
B.89-B.93	'The Royal Society and the foundation of the British gas industry', <i>Notes and Records of the Royal Society of London</i> , <b>39</b> (1985).
B.89	18pp typescript with illustrations and intercalated notes, bound with ribbon, August 1984.
B.90	Correspondence <i>re</i> the writing and publication of Hutchison's article, 1982-1985.
B.91, B.92	Letters sent to Hutchison in response to his article etc, July-October 1985.
	2 folders.
B.93	Manuscript notes by Hutchison.

SECTION C	VISITS AND CONFERENCES C.1-C.4
C.1	Seventh Gas Sales & Service Conference, Harrogate, 6-9 November 1961.
	'Facts and figures. The case for Gas', printed handbook by Hutchison, 1961.
	This handbook was produced for the Conference and is referred to on p.212 of Hutchison's autobiography, <i>High Speed Gas</i> .
C.2	Visit to USA, 12-19 December 1965.
	Typescript itinerary.
C.3, C.4	Third International Conference and Exhibition on Liquified Natural Gas, Washington DC, USA, 24-28 September 1972.
	Hutchison was guest speaker at the Conference Banquet.
C.3	7pp and 3pp typescripts of Hutchison's speech.
C.4	Correspondence and papers <i>re</i> arrangements, 1971-1972.

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