

ART. XII – *Seascale Gasworks*

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SEASCALE village owes its existence in its present form to the discovery of two sources of energy, steam and the atom. In the era of steam, West Cumbria was opened to development when the Whitehaven and Furness Junction Railway began operating from Whitehaven to Seascale in 1849, reaching as far south as Broughton-in-Furness, where it connected with the Furness Railway about 1851. By 1857 the through-rail connection to industrial Lancashire and Yorkshire was established, opening up the area to the transport of iron-ore, iron and coke, and also gradually provided a passenger service. In 1861 the Furness Railway took over the Whitehaven and Furness Junction Railway and a grand plan was conceived to build a holiday resort at Seascale based on the experience gained by the development of the resort of Grange-over-Sands, formerly a small fishing village. Like many other small villages round the shores of Britain, Seascale was already known as a bathing resort before the railway reached it and, in 1870, the Furness Railway Company considered it also ripe for development into a holiday resort, with a grand hotel, promenade and houses, built on land bought cheaply at £50 an acre.¹ This ambitious scheme never materialised, primarily because of a lack of finance, but another factor was that the village was more remote than Grange-over-Sands and Silloth which are more accessible to centres of population. However some development did take place and by the turn of the century Seascale boasted an iron church, a Methodist chapel, 38 apartment houses, a golf course, facilities for tennis and cricket, and a circulating library. Among the shops was a confectioners, a fruiterers and a wine and spirit merchant. All this development required services, and by 1881 gas and water were provided by the railway company.

The production of gas from the carbonisation of coal was first carried out by the Revd John Clayton as long ago as 1688, although his work was not published until 1739. In 1770 de Gensanne described the distillation of coal for industrial purposes. The use of coal gas as an illuminant was introduced by William Murdock in 1792, and in 1798 he installed a gas plant for lighting the factory of Boulton and Watt at Soho, near Birmingham. The first public gasworks was built in Salford in 1805 for providing gas lighting to the factories there: by 1808 London was partially illuminated by gas lighting. However, the general use of gas for lighting dwelling-houses came much later with the introduction, about 1900, of the incandescent mantle which was perfected in 1891 by Austrian chemist Carl Auer von Welsbach (1858-1929). Gaslights using his thorium mantle (typically a thumb-size cloth bag coated with a thorium compound) offered a big advantage: because the thorium could incandesce at extremely high temperatures without melting, they were far brighter than ordinary lamps.

In 1816 coal gas production took a major step forward when the horizontal retort was patented by Samuel Clegg together with his apparatus for purifying coal gas with cream of lime, and for his rotative gas meter and self-acting governor. The two main by-products of the process are coke and tar; the sale of these is essential to the

economical running of the gasworks (Figure 1).

The Furness Railway Company built the gasworks trading as the Furness Gas Company, to provide visitors with all the essential services needed by a modern resort, and still owned the works in 1901 when the population had reached 306.² The gasworks had four horizontal retorts, two gas-holders, and all the equipment such as purifiers, condensers and tar tanks necessary for the manufacture of coal gas (Fig. 2). The works itself could be run by one man although two men were sometimes employed because they also undertook the servicing and installation of all gas appliances as well as attending to the production side of the business. Of the 26 gasworks in what is now Cumbria – only Seascale and Burton-in-Kendal served fewer than 1,000 population.³ The statistical records for these two plants are much less detailed than for the larger Cumbrian gasworks, possibly because of their comparative insignificance and/or a laxity of management in maintaining and submitting records.

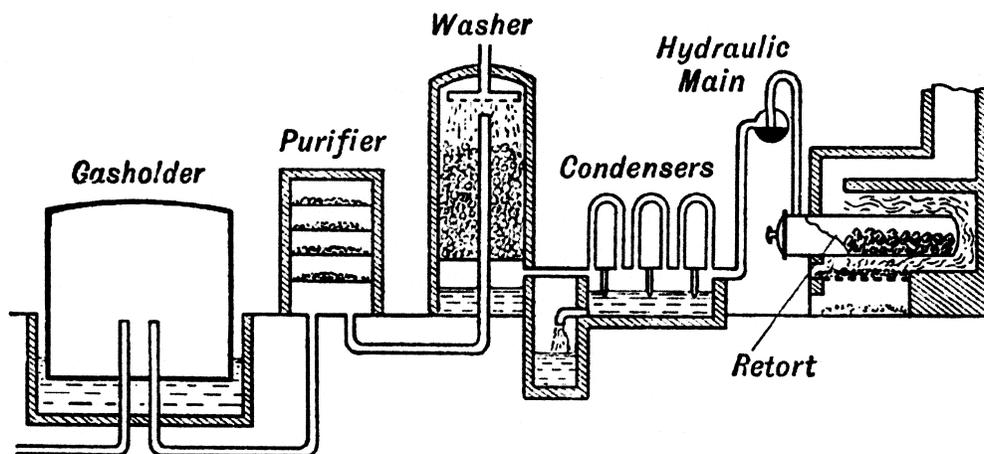


FIG. 1. Diagrammatic sketch of coal gas manufacture

The corrugated iron church in Seascale was built in 1881⁴ and soon after was supplied with gas, followed by the Wesleyan Methodist Chapel (erected in 1887) in 1896. A few years later, about 1902, the proposal to provide street lighting by gas-lamps was discussed by the Parish Council, the obstacle being that it would increase the rates by two pence in the pound. The Gas Company offered to provide 12 lamps at a cost of three pounds per lamp over a period of not less than six years. At this time there were already three lamps burning by day and night, serving the dual purpose of providing light while at the same time burning off the sewer gases, and there was also a gas lamp at the railway arch. The upkeep of the existing lamps entailed a cost of three farthings per pound on the rates. The Council approved the scheme as providing benefit to both residents and visitors.⁵

By 1906, however, it would appear that the business had become uneconomical, for in that year the Furness Gas Company was dissolved.⁶ In 1911 an application for a provisional order of maintenance was lodged under the trading name of Seascale

Gas Company Ltd⁷ and a new company was set up with £5,000 capital and listed in the 1911 Gas Industry *Directory* as having been formed in 1906 and now with a registered office at 21 Bridge Street, Bradford. However, this seems to have been merely an accommodation address as several other businesses occupied the same building and it would appear likely that the Bradford firm managed the finances, presumably because they bought up ailing companies and attempted to make them viable.⁸

By 1910 Seascale was one of the first villages of its size in the country to have gas lighting in its streets; even the old Public Hall was gas-lit.⁹ At this time the Gas Works Inspector described the works as one of the best little plants he had seen, and it was run by one man.¹⁰ In 1913-14 gas was supplied to 800 inhabitants and by 1950 this had increased to 900, after which time the number of consumers fell and the ageing gasworks went into decline.

On 11 October 1913 an indenture was agreed between the Bootle Rural District Council and the Seascale Gas Company for supply of gas, "except during the months of May, June and July for the lamps for lighting only and for maintaining day and night the light in each of the Lamps for Sewer ventilation". They would also supply gas for any additional lamps as might be required from time to time.¹¹

The Gas Company would be responsible for maintenance and testing of the gas and lamps. They would also be responsible for connecting the lamps to the gas main where the distance was not more than 30 feet. If the distance was greater then the Council would pay "a reasonable price for any length of pipe in excess".

The company were to provide a gas testing facility where the purity and illuminating power of the gas could be determined. The illuminating power was to be such that when the gas was burnt at five cubic feet per hour it should produce "a light intensity equal to that produced by 14 sperm candles of six in the pound each consuming one hundred and twenty grains of sperm per hour and shall be in all respects in accordance with the provisions of the Gas Works Clauses Act, 1871". The equipment used for testing the illuminating power of the gas was to be the Metropolitan Argand Number 2, using a bar photometer. The standard light was to be provided by Harcourt's Ten Candle Pentane Lamp. The gas pressure was to be equal to one eighth of an inch of water in height, and the Council's agent had to have free access to the testing facility. There were to be fines if there was any fault on the part of the Company.

The Council agreed to provide street lamps equipped with governors and other necessary fittings. Any reduction in the general price was to be matched by a reduction to the Council,¹² and the contract was to last until the 31 December 1917. The Indenture was sealed with the Gas Company seal and witnessed by J. H. Wright – Presiding Chairman; W. Arthur Turner – Managing Director and Geo. L. Waddington – Secretary of the Company. (See Appendix 1).

In July 1922 the Seascale Parish Council was informed by the Gas Company Secretary, Mr Waddington, that the business was for sale, and in 1927 the Parish Council was asked to buy the business, including the gas generators, gas mains and offices, for £2,800. This was considered too much and consequently in June 1929 the Gas Company announced that it was closing the gas works. The Parish Council asked them to delay the closure until measures had been taken to obtain a supply of electricity for the whole village. However, the gas plant was by now becoming

obsolete and required updating; the Gas Company was losing money and felt there was no alternative for them but to close the works. At this point a group of about 60 residents, headed by the Revd Canon Akam, took the bold step of raising the purchase money and acquiring the plant. On the 1 October 1929 the Seascale Gas Company (1929) Ltd. was formed with Canon Akam as managing director.

The address of the Head Office was given as, "The Ben Rhydding Golf Hotel", Nr. Ilkley, Yorks.; Chairman: Charles E. Hildreth ; Directors : Rev. J. W. Akam, F. R. Burnett, C. E. Hildreth, William Walker, Miss A. L. H. Wilson; Secretary: Geo. E. Waddington (this is probably a mis-reading of a written signature as on other documents the Secretary's name is given as George L. Waddington).¹³

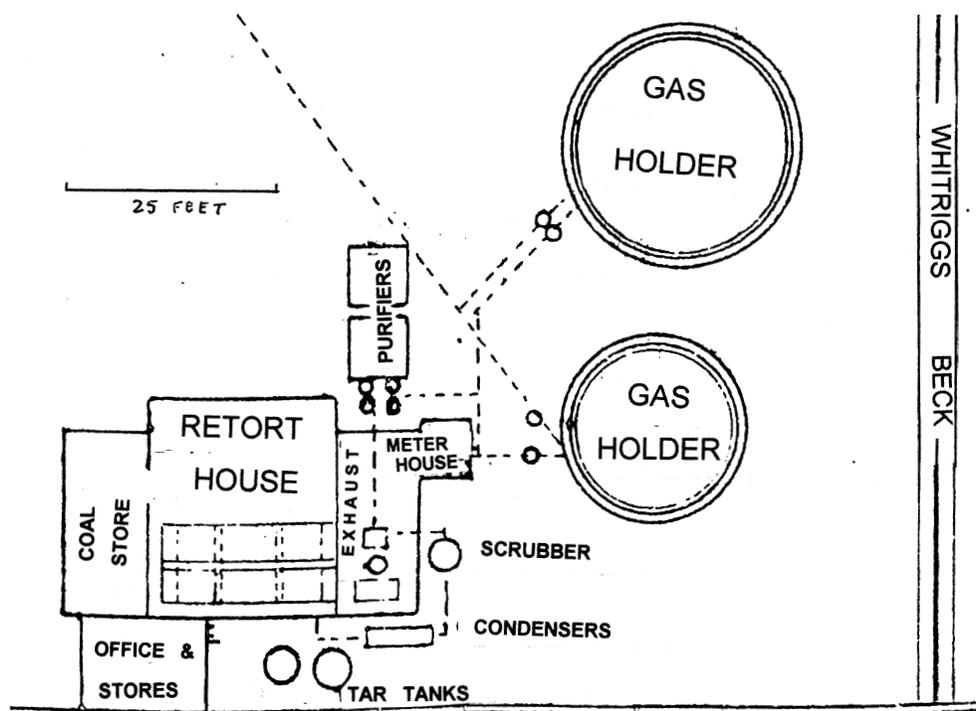


FIG. 2. Sketch plan of the Seascale Gasworks.

An advertisement in the *Whitehaven News* accordingly appeared¹⁴

Seascale Gas Works – Manager wanted. Capable of Running the Plant and willing to tackle all jobs. Opportunity for keen man to improve his position. Write to the Secretary, Seascale Gas Company (1929) Ltd., 11a Lowther Street, Whitehaven.

Within eight years the equipment had been renewed and several dividends of five percent had been paid. The directors even decided, after this time, that instead of paying the dividend they would reduce the price of gas from 8s. 4d. to 8s. per thousand cubic feet.¹⁵

For some time the actual operation of the gasworks seems to have been a family affair. The parish registers of 1885 show William Ashley as Gas and Water Manager;

in the 1881 census for Cumberland there is a record of William Ashley, Gas Engineer, born in Birmingham and living in Railway Terrace, Seascale. This terrace is a line of small cottages just below the seaward side of the railway embankment. In the 1901 census there is a record of one John Ashley (also born in Birmingham), Gas and Water Manager at the Railway Station. He was four years older than William and presumably was William's brother. He too was born in Birmingham and lived in Railway Terrace.

By 1916 the man in charge was Harry T. Lee and the output of gas was around 2,500,000 cubic feet per year. He was followed in 1929 by his son Norman Lee (Plate 1), who, in describing his duties pointed out that controlling gas production was most difficult during the summer months because of the great influx of visitors, which made the demand for gas impossible to predict.¹⁶ Running the works also involved much more than the production of gas; the storage tanks had to receive regular attention, the coke produced had to be bagged and sold, and tar had to be barrelled and sold. Every two years or so it was necessary to paint the two gas-holders to prevent corrosion. At that time the job involved control of both gas and water, hence his title of Gas and Water Manager. The man in charge of the gas works also installed gas appliances in the village. There is no record of where Harry T. Lee and his son Norman lived, but it seems likely that the gasworks managers were provided with a house on Railway Terrace, since both of the Ashley families and the Harkers lived there.

In 1948 the government introduced the Gas Bill to nationalise the gas industry. At that time the chairman of the gasworks was J. Pattinson, the manager was P. Brumwell and the secretary was J. E. Clark. Millom Rural District Council, who were responsible for Seascale at that time, were operating their gasworks under both the Northern and North Western Gas Boards in the period 1950-1951. The minutes make it clear that the Council was awaiting the outcome of a test case which would determine whether the Gas Boards taking over gas operations from the local authorities were entitled to the profits created by the local authority gas revenue accounts, or conversely were responsible for any accumulated deficits. This means that the Council had probably handed over operation of the gasworks shortly beforehand. In the telephone directory, Seascale Gas Company (telephone Seascale 458) appears under the entry for the Workington Division of the Northern Area Gas Board for the first time in 1951, and is repeated every year thereafter until 1958. It is likely by this time that the works required expensive refurbishing; also the new housing estate built to service the Sellafield nuclear plants used only electricity supplied from a new sub-station, and the number of gas consumers had fallen rapidly to only 150 by 1956 from 900 in 1950. The telephone directory entry did not appear in 1959, so it seems reasonable to assume that the gasworks closed in the period 1958-1959. Coincidentally, according to the Council Minute Book we see that there was a complaint by Millom R.D.C. in 1957, on behalf of the residents of Seascale, about the poor supply and problems with low gas pressure.¹⁷ This was possibly the final straw which caused the Northern Gas Board to announce that it was no longer economical to supply gas and closed down the works.

Typical figures for annual gas output at Seascale were around 2-4 million cubic feet although it may have been lower during the War years. Some of the later figures for gas production seem to be misprints in the Gas Directories and would be more

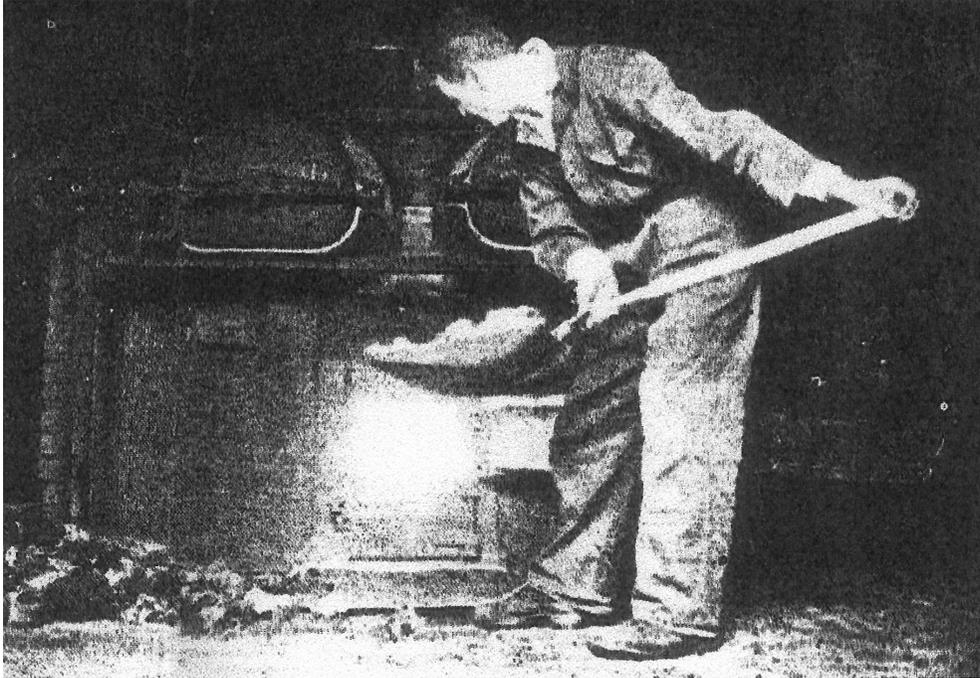


PLATE 1. Norman Lee stoking the fires in the retort house at Seascale Gasworks
(Reproduced from *Meccano Magazine*, April 1939.)



PLATE 2. The extent of the flooding in 1954. The depth of the water is demonstrated by Jimmy Harker.



PLATE 3. Jimmy Harker wades behind the purifiers towards the retort house to assess the damage.



PLATE 4. The flood waters have receded somewhat and the retort house is clearly visible.

realistic if reduced by a factor of 10. In 1949 production is given as 3,500,000 cubic feet, but in 1950 this is given as 29,000,000 cu. feet (surely 2,900,000 feet), 1951 as 4,000,000 cu. feet and in 1958 when consumers had fallen to 150, output is given as 17,000,000 cu feet. (clearly an error for 1,700,000 cu. feet) (See Appendix 2).

The Gasworks was discretely sited in a hollow south of Scale Villas close to Whitriggs Beck since a salt free water supply was needed and was adjacent to the sports field and the old reading room. It was conveniently near the railway sidings but was almost completely hidden from the proposed new “resort” of the Furness Railway Company. In the 1950s the works was run by James (“Jimmy”) D. Harker who was listed as Gasworks Manager in the 1951 Gas Directory (Appendix 3), although Percy Brumwell still appeared to be connected with the works.

Jimmy died in 1963, five years after the closure of the gasworks in 1958/9 and just before his 48th birthday. James Harker is given in the last *Gas Directory* entry in 1958 as manager, but before it finally closed another man worked there as his assistant.

Whitriggs Beck burst its banks twice, during recent times, causing serious floods the first of which I believe was in 1954 (Plates 2-4), and the second some 13 years later when the works was more or less derelict.¹⁸ The vulnerability of the works to flooding and the subsequent damage might well have influenced the decision to close it. It was fortunate from one aspect that the 1954 flood took place (although Jimmy Harker would certainly have disagreed) because it aroused sufficient interest for people to photograph it and thereby record the buildings and gas holders. The lower part of the old village, including Railway Terrace just south of the gasworks, was also flooded at this time. The gasworks was demolished some years ago and the ground filled in; the site is now occupied by a long-needed sewerage works.

Acknowledgements

I wish to acknowledge the confirmation of our memories by Seascale residents, Eleanor Borwick (née Harker), Bernard Astridge, Peter Seath, Cec. Fawcett, Ernie Arnall of Whitehaven, and particularly the assistance of Tom Jones. Our family remembers the floods which happened when they were children and the photographs were given to me at the time of the flood by Harry Twentyman. Similar photographs are held by Tom Jones. I also had assistance from Whitehaven Record Office and advice from Bill Wiseman. I am especially grateful to Dr Blake Tyson for his help and for the information from the *Gas Works Directories*. Neville Ramsden gave permission to quote freely from his book *Seascale, The Village of Seascale, the History and its People*.

Notes and References

¹ J. D. Marshall, *Old Lakeland, Some Cumbrian Social History* (David & Charles, 1971), chapter 12.

² Bulmer's *History and Directory of Cumberland* (1901).

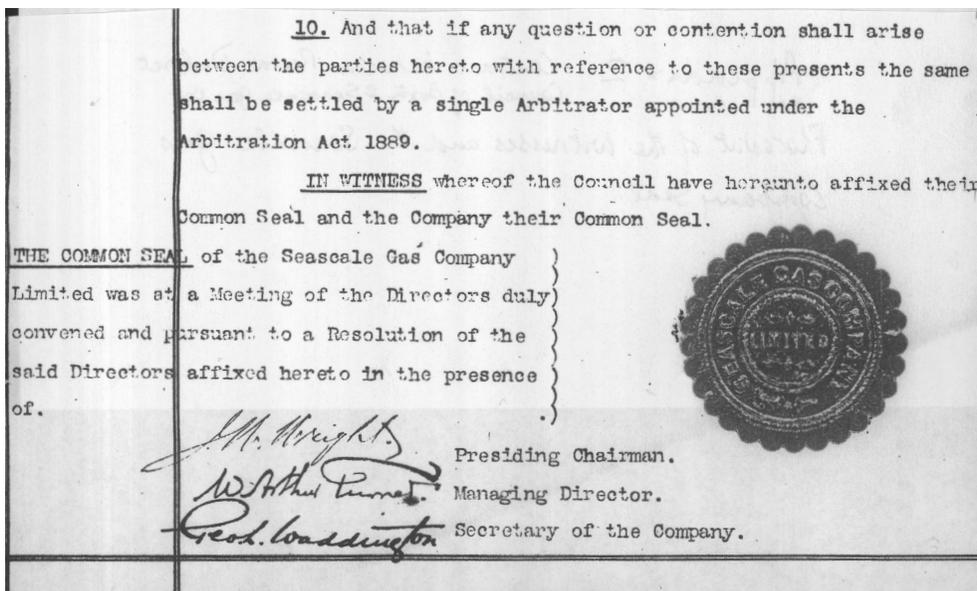
³ Dr. Blake Tyson, *Windermere Gas Works*, CW2, vii, 135-167.

⁴ This was constructed with money from the Furness Railway Company, who did not think it was worth building a stone church as they did not know how the village was going to develop. This church was destroyed in a storm in 1884 and the new stone church of St Cuthbert was built in 1890 – Neville Ramsden, *Seascale, The Village of Seascale, the History and its People* (Copeland Research, 1998), 88 ff

- citing *Whitehaven News* July 1881: C. M. L. Bouch, *Prelates and People of the Lake Counties* (Kendal, 1948), 464-7.
- ⁵ CRO(W), SRDMA 1/Misc/1 Bootle RDC Minutes 1901-1934.
- ⁶ Board of Trade: Companies Registration Office: Files of Dissolved Companies shows Seascale Gas Company Ltd in 1906 – PRO BT 31/17943/91159.
- ⁷ Notice of application by Seascale Gas Company Ltd for a provisional order for maintenance 1911 PRO MT10/1404, which was granted the same year PRO QRZ/4/53.
- ⁸ *The Gas Works Directory & Statistics* (London, 1900-17).
- ⁹ Matthew Mossop, *pers. comm.*
- ¹⁰ Neville Ramsden, *op. cit.*, 153.
- ¹¹ CRW(W), SRDMA 1/Misc/1 Bootle RDC Minutes.
- ¹² There was no mention of increasing the price to the Council if the Gas Company reduced the price to the general consumer and then raised it again.
- ¹³ Neville Ramsden, *op. cit.*, 153f.
- ¹⁴ *Ibid.*, 154.
- ¹⁵ *Ibid.*, 153.
- ¹⁶ *Meccano Magazine*, April 1939.
- ¹⁷ CRO(W), SRDM 1/1/1/6, Milloom RDC Minute Books. A similar small gas works at Cockermouth also received complaints from its customers. According to entries in the Vestry Book in 1831, it was resolved to adopt in Cockermouth the provision of “an act for lighting and watching of parishes” and a sum of £84 was the highest yearly sum to be called for. The gas works has a foundation date of 1834. In 1836 Gas as a “lighter” was discussed, and in 1846 lighting a clock over the Savings Bank was agreed by 260 votes to 190. At the same time Cockermouth complained to the gas company for putting out the street lamps in the early morning before dawn, at a time when they were most needed. W. F. Gillbanks, “Extracts from the Vestry Book of All Saints’, Cockermouth”, *CWI*, ix, 115f.
- ¹⁸ Recollections recorded from various Seascale residents.

APPENDIX 1

Witnesses to the contract for the supply of gas between the Bootle Rural District Council and the Seascale Gas Company, including the Gas Company Seal.



APPENDIX 2

Extracts from the relevant Gas Industry *Directories* (Supplied by Dr Blake Tyson).

The entries are not as comprehensive as those given for the larger Cumbrian Gasworks; this may have been due to the lack of strong overall management and/or financial difficulties.

1910-11	Population supplied = 800; Date of formation 1906; Share capital £5,000; Coal carbonised 200 ton; Annual output = 1,800,000 cu. feet; No of slot meters 36, ordinary meters = 84; price per 1,000 cu. feet 5s. 3 ¹ / ₂ d. subject to discount; No. of public lamps, 13 (including 12 incandescent); Office, 21 Bridge Street, Bradford.
1913-14	Same as 1910-11. Same as 1913-14 except coal carbonised 288 tons; Annual output = 2,500,000 cu. feet. Manager, Harry T. Lee; Secretary Geo. L. Waddington.
1918-27	No Directories.
1928	Annual output = 3,500,000 cu. feet. Price per 1,000 cu. feet = 8s. 4d. with sliding discount from 2 ¹ / ₂ % to 12 ¹ / ₂ %. Office 21 Bridge Street, Bradford; Secretary Geo. Waddington. Telegraphic address "Underwriter", Bradford; Telephone Bradford 3306.
1929	Same as 1928.
1930	Seascale Gas Co. Ltd. Formed 1 October 1929. Annual output 3,500,000 cu. feet; Cost of coal, large nuts, 26s. per ton; Price per 1,000 cu. feet = 8s. 4d. with sliding discounts from 2 ¹ / ₂ % to 12 ¹ / ₂ %. Chairman, C. E. Hildreth; Secretary, Geo. L. Waddington A.S.A.A.; Office: Seascale, Cumberland. Coal Depot, LMS with sidings. Seascale Gas Co. Ltd. Annual output = 3,000,000 cu. feet. No other information.
1939-47	War-time censorship: No entries.
1949	Seascale Gas Co. Ltd. Annual output = 3,500,000 cu. feet. Price per 1,000 cu. feet 10s. 9d. Chairman J. Pattinson, Secretary J. E. Clark, Manager P. Brumwell.
1950	Seascale Gas Co. Ltd. Annual output 2,900,000 cu. feet.* Consumers 900. Price per 1,000 cu. feet 6s. 3d. and 6s. 9d. Calorific value 500. Manager T. B. Ashbridge.
1950	Seascale Gas Co. Ltd. Annual output 4,000,000 cu. feet. Price per 1,000 cu. feet 10s. 5d. Manager J. D. Harker.
1956	Northern Gas Board, Workington Division, Divisional Manager J. G. Pope. Plant horizontal. Annual output 1,700,000 cu. feet.* Calorific value 475; Consumers 150; Price per therm 22s. 5d.
1958**	Manager J. D. Harker. Annual output 1,700,000 cu. feet; calorific value 475; Consumers 150; Price 26s. 5d. per therm.

* Figures ten times the value appear to have been original editing errors in the *Directories*.

** This is the last entry in the *Directories* whose details usually apply to the previous year.