# Corporate Responses to the Emergent Recognition of a Health Hazard in the UK Asbestos Industry: The Case of Turner & Newall, 1920-1960

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"We repudiate the term 'Asbestos Poisoning'. Asbestos is not poisonous and no definition or knowledge of such a disease exists" (T&N's TBA board view, 1922) [4]). "Disease associated with asbestos is rare. The general public is not at risk, and very few workers are. The whole subject has been sensationalised because some recent medical research is of a kind which easily attracts headlines, and because asbestos dust can, in a minority of cases, lead indirectly to cancer, which is always a 'scare' word" (draft by UK Asbestos Information Committee, 1967) [8].

The two-part question addressed by this paper is "what corporate attitudes to the unfolding health hazards of processing asbestos were developed in the UK asbestos industry and how can the origins and persistence of those attitudes be explained?" The short, economic answer to part two is "supply and demand and profits." There were no cheap substitutes for the naturally-occurring fibrous rock asbestos, for use as brake-linings and as a fire-proof material in ships, buildings, and clothing, until the 1960s and 1970s. Meantime growing profits had to be maintained to meet shareholders" expectations. These explanations are inadequate, however. If the need to provide substitutes had been fully accepted then the industry would have started to search for them and, for most usages, have found them long ago. As for profits, a transitional diversification to support profit levels could well have been organised, much as it was in the 1960s-1980s. The contention of this paper is that the boardroom culture of Turner & Newall (T&N), the UK industry's leading firm throughout most of the twentieth century, shaped the industry's attitudes as exemplified in the quotations at the head of this paper.

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## The Company and its Environmental Health Problem

A huge growth both in supply and in demand for asbestos developed between the early twentieth century and the 1960s. An abundant supply of high quality asbestos became available in Canada after 1878 when a forest fire in Quebec laid bare a vast deposit of asbestos [10]. In 1930 world production stood at nearly 339,000 tons. By 1950 this had nearly quadrupled to 1.2 million tons. Of the latter, over 95 per cent was chrysotile (white asbestos) and over 60 per cent came from Canada [11]. Demand in the UK grew increasingly from the 1930s, with the expansion of the motor vehicle, electrical and engineering industries, both in peacetime and wartime; in shipbuilding after rearmament in the 1930s; and with renewed activity in the building industry in the 1930s and again after 1945.

T&N started as a private company formed by the merger in 1920 of four older firms. They continued as T&N's operating subsidiaries. Turner Brothers Asbestos Co. Ltd. (TBA) of Rochdale, Lancashire, made asbestos textiles while their Manchester plant at Trafford Park produced asbestos cement. TBA had asbestos mining operations in Canada and in Southern Rhodesia. The Washington Chemical Co. Ltd. of Wearside, County Durham, manufactured magnesia chemicals and solid asbestos insulation materials while its offshoot, Newalls Insulation Co. Ltd., installed asbestos insulation materials in ships, factories and the like. The fourth firm, J. W. Roberts Ltd. of Armley, Leeds, manufactured asbestos boiler mattresses for locomotives. To provide capital for expansion T&N was floated on the London Stock Exchange in 1925. Its first major acquisition was Ferodo Ltd. of Chapel-en-le-Frith, Derbyshire, manufacturer of asbestos brake linings for vehicles. This created a vertically integrated and multinational business using a new technology to meet demand for a wide variety of insulation purposes in growing markets.

From 5,000 employees at home and abroad in 1926 T&N reached over 10,000 employees by the late 1930s, placing it among the hundred largest employers in the UK. In 1961, and still in the list of 100 largest employers, T&N employed 20,000 in the UK and another 20,000 abroad. By this time it was bigger than Johns-Manville, the largest American asbestos manufacturer: while Johns-Manville had sales of $304.1 million in 1959, T&N had sales of $450 million the previous year.

First hints of the uniquely toxic nature of asbestos, and hence its threat to the health and morale of the workforce, crossed T&N's horizon just two years after the company's formation and by 1927 asbestosis (fibrosis of lungs or pleura due to inhalation of asbestos) was identified in the medical press. Government intervened in 1931 and asbestos manufacturing plants were required to take special measures to shield workers from asbestos fibers in the most hazardous operations (the "scheduled areas"). In the 1950s a new asbestos hazard emerged: lung cancer.

## Public Corporate Attitudes Towards the Asbestos Health Hazard

Public and private expressions of the corporate view, expectedly, were rather different. The public face of the T&N board appeared primarily in the chairman's annual report to shareholders. Only once between 1925 and 1960 did it refer to the health risks presented by inhalation of asbestos fibers. In 1937 Samuel Turner referred to asbestosis and the factory modernization which he was sure would eliminate it:

> It is only within comparatively recent years that the Directors have become aware of the danger to health which arises from continuous contact with asbestos dust, but from the first date when scientists brought this danger to our notice, unremitting efforts have been made to overcome the difficulty. Our efforts have been so completely successful that I can with confidence state that new cases of asbestosis in your Companies' factories are extremely unlikely, the cases with which we have to deal at present being simply the inheritance of the days when unfortunately this danger was not realised. When our plans are completed, the working conditions in our asbestos factories will be second to none, and there will be no special risk of any kind attached to working in them. The unit ventilating system evolved at Rochdale has been the subject of congratulation by the Home Office, and will, we hope, in due course become standard in the asbestos textile industry [20].

Avoiding mentions of health hazards, the T&N chairman instead emphasised the progressive character of the company's investment policy. New factory layouts and equipment complying with the 1931 regulations would, by implication, improve employees' workplace environment and its effect on health. Thus year after year the chairman made claims like (on the textile side) "our plants are maintained in a state not merely of the highest efficiency, but at a pitch which sets a standard for the industry throughout the world" [20, for 1933, 1934, 1936, 1937, 1939]. The T&N board thus seemed to say that they were hardly aware of a health problem until the early 1930s but, once it had come to their notice, their investments in science and technology would soon solve it. The truth was far different, as seen below.

Private and less-public responses of T&N-TBA managements towards the threatening findings of medical research in the 1920s and the 1950s, and towards the imposition of government regulation in the 1920s-1930s and 1940s, most clearly expressed corporate attitudes.

**Board Responses to New Medical Research**

*The 1920s*

A handful of medical men brought the asbestosis hazard to light in the 1920s. Dr. Walter Scott Joss, a Rochdale physician, made the surprising diagnosis of "asbestos poisoning" in 1922 after examining one of his patients, thirty-one year-old Nellie Kershaw, a rover in the spinning room of TBA at Rochdale and wife of a slater's labourer. Dr. William Edmund Cooke, MD, pathologist and bacteriologist at Wigan Infirmary and at Leigh Infirmary, at the inquest on Mrs. Kershaw in 1924 testified that the "mineral particles in the lungs originated from asbestos and were, beyond reasonable doubt, the primary cause of the fibrosis of the lungs and therefore of death" [4]. He published his findings in two papers in the *British Medical Journal*, one in 1924 and a fuller version in 1927. In the latter he gave the disease its name: "pulmonary asbestosis."

Dr. Ian Grieve, a GP some of whose patients worked for T&N's subsidiary, J. W. Roberts Ltd. of Armley, Leeds, in 1927 successfully completed his Edinburgh University MD thesis on "Asbestosis." He concluded that the pulmonary fibrosis

caused by asbestos particles was unique; that "asbestos workers seldom survive five years in the factory without developing respiratory disease;" that effects are progressive and do not diminish with cessation of work; and that the longest working life was twenty-five years, and the shortest fifteen. By the beginning of 1928 then, the most expert medical opinion in the North of England (echoed in London) agreed that asbestos was a highly toxic substance and the cause of a unique and lethal disease, asbestosis. How did the directors of T&N and its subsidiaries respond?

To the assertion of "asbestos poisoning", Percy George Kenyon, TBA works manager at Rochdale, doubtless having consulted his directors, initially combined a reasonable tone with unreasonable inquisitiveness. He wrote to Dr. Joss asking that he "inform us what you have said to Miss[sic] Kershaw about suffering from Asbestos poisoning" and invited Dr. Joss to see factory conditions for himself. Joss was presumably not going to violate his Hippocratic oath by discussing one of his patients with a third non-medical party nor was he prepared to change his medical opinion. In a scrawled note he tersely told Kenyon, "Nellie Kershaw is suffering from severe bronchial catarrh ... in view of my knowledge of her family history I am compelled to advise her to exit from such [your] employment." Ignoring this opinion, the TBA board then wrote to Mrs. Kershaw's insurance company: "We repudiate the term "Asbestos Poisoning". Asbestos is not poisonous and no definition or knowledge of such a disease exists. Such a description is not to be found amongst the list of industrial diseases in the schedule published with the Workmen's Compensation Act" [4].

At the inquest on Mrs. Kershaw in 1924 the T&N directors' main concern was to shift the blame for the victim's death away from the company. They recruited a local physician, Dr. William Hirst Batemen of Daisy Bank, Rochdale, with whom they had had earlier dealings as a trusted medical adviser. Bateman was employed to prime the two legal men who represented TBA at the inquest: a barrister, Mr. McCleary, and Mr. G.L. Collins, of Jackson & Co., the company's Rochdale solicitors. Although Dr. Bateman eventually agreed with Dr. Cooke's diagnosis, medically-informed questions clearly designed to cast doubt on, if not to overthrow, the views of Joss and Cooke were launched against them. This was reasonable enough: inquests are held to test the evidence [4]. T&N's overriding concern, as they privately admitted, was to evade any financial liability for Mrs. Kershaw's death. Were this proved it would open the floodgates to a stream of claims for compensation. So the company's lawyers suggested that the third stage in Mrs. Kershaw's disease may have taken more than two or three years to develop, i.e. before she worked for TBA. The lawyers underlined the comment in his report that Cooke could find "only one case of suspected lung irritation caused by asbestos" in the medical literature. And they drew attention to his view that "an efficient method of ventilation in asbestos works would prevent fibrosis being caused" [4].

The next case involving the company came in March 1928 when an inquest was held in Leeds on Walter Leadbetter, a thirty-four year old employee of J.W. Roberts Ltd. William Walker Shepherd, the new joint company secretary of T&N, represented the company: "I am arranging to go over with Mr. Kenyon [the Rochdale plant manager] so as to have the opportunity of having a talk with Counsel before the inquest, and ensuring that nothing is overlooked to protect our position." T&N's Counsel, Mr. Stewart, questioned two of the three medical witnesses hard. Both Dr. Grieve, the victim's physician (noted above), and Dr. Arthur Leslie Taylor, pathologist at Leeds General Infirmary, stood by the evidence they found: the victim's lungs were

fibroid and suggestions of asbestos particles were present. However, Stewart drew attention to evidence that Leadbeater suffered from bronchial pneumonia. As Shepherd later admitted, we "used the small differences [between the company's pathologist and Taylor] in cross examination of the Coroner's pathologist." The jury returned a verdict of "broncho-pneumonia and fibrosis of lungs due to asbestos dust." With this verdict Shepherd was able to dismiss the views of Dr. H de Carle Woodcock, lung specialist and consultant of Leeds, who regarded current methods of preventing asbestos dust inhalation as unsafe: thus disposing of another threat from the medical quarter [5].

In short the company founders established the view that doctors' opinions and judgements should be challenged; that the interests of the company, as understood by the board, were paramount; and that the appropriate defensive tactics were denial, a legalistic view of the situation, and litigation.

*The 1950s*

A very similar approach was adopted when the lung cancer hazard was identified. Links between exposure to asbestos and lung cancer emerged first as case reports in the 1930s, then as aggregated surveys of the case literature in the 1940s, in the UK, the USA, and elsewhere. In the UK the *Annual Report of the Chief Inspector of Factories* for 1947 included a statistical analysis by Dr. E R A Merewether of all known asbestosis deaths in the UK between 1924 and 1946, 235 cases in all. It was found at autopsy that cancer of the lungs or pleura was present in 13.2 percent of cases, compared to an incidence of 1.32 percent in silicotics and a similar figure in the general population. Over the next few years medical specialists divided over whether asbestos caused lung cancer, with the majority believing that it did [3]. A very strong link was demonstrated by an epidemiological study conducted by Dr. Richard (later Professor Sir Richard) Doll, a medical statistician, then with the Medical Research Council's Statistical Research Unit at the London School of Hygiene and Tropical Medicine.

Doll's work began with an invitation from Dr. John F. Knox, medical officer to the TBA plant at Rochdale. Knox's interest had begun after considering the data in the Chief Factory Inspector's *Report* of 1947. In July 1950 he brought those data to the notice of the T&N-TBA managers suggesting they should discuss them with Dr. Merewether, then Senior Medical Inspector of Factories. Two years later Knox recorded that the only way to settle the debate over the asbestos-cancer link was to conduct a large statistical study of all those at risk and not just on post-mortem and inquest cases. By September 1952 Knox himself was beginning to assemble these statistics. Eventually, on 12 April 1953, Knox wrote to Doll, explaining he had a lot of data and inviting Doll or some other authority to join him in a thorough study: "I have the approval of my firm, Messrs. Turner Bros. Asbestos Co. to approach a statistical authority to discuss this question. They are quite prepared to pay for the opinion in the usual way." Doll suggested studying the medical histories of all individuals who had worked for TBA for at least ten years, but insufficient career data were available for this [6].

Their first draft, completed by June 1954, concluded "that lung cancer was a specific industrial hazard of asbestos workers and that the risk among men employed for 20 or more years may have been of the order of 10 times that experienced by the general population. Insufficient data are available to determine whether the risk has

yet been eliminated by the improved conditions which now exist." The finding shocked T&N-TBA senior executives. Now chaired by Ronald Soothill, the TBA board refused to approve publication of the paper. In turn Doll was shocked. However, he insisted that free publication was the way for others to test his work and that even partial evidence would assist fellow researchers. He stated his intention of submitting it to the *British Journal of Industrial Medicine*, regretfully conceding that Knox's name and any reference to T&N or TBA would have to be omitted [6].

Without a complete record of communications between members of the TBA board and Dr. Knox, we have to rely for a view of the corporate mind on fragmentary evidence. On Dr. Doll's 8 June 1954 letter of protest at the board's decision to suppress publication, John L Collins (brother or son of George?), the former company secretary and solicitor, wrote, "What positive findings as to the cause of cancer are contained in the report?" and "It's the dissemination not of scientific data but of inaccurate conclusions which we wish to restrain." He followed this with a long memo in which he sought to refute aspects of the Doll-Knox report from a legal and logical angle. The essence of Collins's critique was that Doll's statistical findings related not to asbestos workers but to asbestos workers with asbestosis. Lung cancer, concluded Collins, was not a hazard for all asbestos workers, only for those who contracted asbestosis. In fact Doll and Knox's population comprised all employees in scheduled areas, not just asbestosis victims. Presumably this was pointed out to Collins by Knox who disagreed with Collins's critique [6].

Although Soothill and Norton A. Morling, the TBA managing director, left nothing [accessible to this author]. O paper, it is clear that they were extremely worried by the implications of the Doll-Knox investigation. Not only did they require their legal officer to grill the draft, but also they must have approved the retaining of legal Counsel to advise them about copyright and how they might restrain Doll from proceeding with publication. A very tough letter to Doll, drafted by legal Counsel, Mr. J. D. Cantley QC, was prepared, in which the TBA managing director threatened to take legal advice about the company's rights. It was never sent. Instead Knox went to see Doll and in late September 1954 Doll went back to Rochdale to see Soothill and Morling [6].

Doll's hand seems to have been strengthened by the fact that he had refused to accept any fee from the company for his investigation or to sign a contract of terms and conditions under which he worked. Eventually Doll reached a compromise with the T&N-TBA management by agreeing to postpone publication until he had done a study of the "survival rate of workers taken on in the last 25 years." This additional research was completed (though, due to a small population, its results were less conclusive than the primary project) and publication was postponed until April 1955 [9].

The T&N-TBA board made a last attempt to disturb Doll's findings. In March 1955 Collins and the new company secretary A. D. N. Jones examined the final draft of the Doll-Knox paper and Jones, fearing bad publicity, repeated Collins's earlier criticisms (based on a misunderstanding of statistical method): that the survey was confined to workers in scheduled areas and that it focused on workers with more than twenty years' experience. He implied, the risk of lung cancer among asbestos workers who had started in scheduled areas since 1931 was far less that Drs. Doll and Knox suggested [8].

## Board Responses to New Government Regulation

*The 1920s-1930s*

Given the factory inspectors' willingness to exercise pedagogical patience, rather than acting as industrial policemen [13], it was not surprising that the executives of T&N and its subsidiaries sought to influence the inspectors towards corporate rather than individual considerations and welfare. For example, after the Walter Leadbeater inquest at Leeds in 1928 Walker Shepherd, reported to Samuel Turner, the T&N vice-chairman, "A satisfactory feature of the whole proceedings is that Dr. Henry [HM Medical Inspector of Factories], who represented the Home Office, was exceedingly fair throughout, and is far from being convinced that [sic] such a thing as Asbestosis. There is no doubt that as a result of this case following the previous one there will be some sort of enquiry on behalf of the Home Office, but we are satisfied that there will be no attempt on their part to prejudge the issue." Clearly Shepherd believed that the factory inspectorate were well disposed towards the employers as a result of the Leeds inquest [5].

In 1931 the government, in response to a definitive study of asbestos workers and workplaces by the Factory Inspectors Merewether and Price (which found that 80.9 percent of workers exposed to asbestos dust for twenty years and more would suffer fibrosis of the lungs), introduced regulations governing worker health checks and compensation and working conditions. While the Factory Acts had long since brought the hand of government into the asbestos industry in a general way, the legislation of 1930-31 introduced several new developments. First, government recognised a new disease, asbestosis, and took specific steps to deal with it. Second, a government agency (the Medical Board) monitored workers in the hazardous sections of the industry (the scheduled areas) and the victims of the disease. Third, government (the Home Office) set up a special fund to pay for this medical monitoring. Fourth, it brought asbestos workers and their dependents within the Workmen's Compensation Acts, by which employers paid compensation to victims and funded the medical examinations. Fifth, it defined those conditions that the factory inspectors regarded as minimal for worker health and safety in many of the asbestos manufacturing processes. Sixth, it provided factory inspectors with a mechanism (registers of ventilation equipment) by which to monitor working conditions. Finally, infringements of the law could result in fines or civil proceedings (under the Workmen's Compensation Acts) or criminal proceedings (under the Factory Acts). While these measures ostensibly made big inroads into the problem of asbestosis, they left untouched the highly dangerous conditions endured by many more workers in the packing and installation sides of the asbestos industry [16, 19].

Factory inspectors were soon visiting T&N subsidiary company plants by the time all the 1931 Regulations came into effect on 1 March 1933. The T&N Asbestosis Committee's first Minute Book ends on 2 May 1933 but on that date reports of factory inspectors' visits to Rochdale, Trafford Park and Washington showed that the regulations were being enforced, though not always precisely. At Washington, for example, the inspectors were persuaded to sanction dust filters in a workroom (thus contravening the 1931 Regulations which prescribed the separation of the workroom from the filter apparatus for collecting loose asbestos dust) because the filters were screened off from the workplace [7].

The other direction in which the T&N directors, and other asbestos company boards, sought to influence government was by approaches to Whitehall and if necessary parliament. Here the T&N board collaborated with other asbestos manufacturers. For example, Robert Heap Turner of T&N convened a meeting of asbestos manufacturers at the Grosvenor Hotel in London a few hours before they were due to attend a Home Office conference on 21 June 1932.[2] They discussed the recently-published factory inspectors' report on the incidence of asbestosis among asbestos packers and considered ways of limiting the extra costs they would face from widening compensation [15]. They then took their various complaints to the Home Office where, the T&N Asbestosis Committee minutes show, officials agreed to let the employers see the accounts of the Medical Expenses Fund and to circularize coroners to give employers' medical representatives access to inquests as requested. However, any question of relaxing suspension rules or granting employers copies of medical reports was vetoed by the Home Office officials. Likewise Walker Shepherd's concern to retain older asbestos workers affected by fibrosis (in the same way that silicosis victims continued to work), providing they showed no signs of TB, was denied by the Home Office [7]. Again, in 1933, after the *Lancet* reported a high proportion of young girls among 57 cases of pulmonary asbestosis [14], the Home Office considered issuing draft regulations excluding young persons under eighteen from the asbestos industry. In response the T&N Asbestosis Committee minuted "every effort should be made to prevent such draft Regulations, if they exist, from coming into force" [7]. By 1933 the T&N board's Asbestosis Committee was ready to send another deputation to the Home Office, "when the time is ripe" and, in a pincer movement, compiled a list of six MPs (for Dartford, Chester-le-Street, West Ham, Glasgow, Widnes and Rochdale) who might be interested in their case [7].

*The 1940s*

What then were the effects of regulation at the TBA textile asbestos works near Rochdale? An internal T&N plant-by-plant survey in 1949 revealed a fearful picture at Rochdale (and one perhaps worse at the Roberts plant in Leeds). "The fibre preparation plant at Rochdale is all at least 30 years old (much of it is probably a great deal older), and is virtually worn out. Undoubtedly but for the war it would have been replaced several years ago. It is costly in maintenance, inefficient in operation and cannot be adequately ventilated as a protection against asbestosis" [8]. There could hardly be a more damning admission of failure to comply with the statutory Asbestos Industry Regulations of 1931.

T&N executives had succeeded in preserving these perilous conditions against the recommendations of the Regional Medical Inspector of Factories. He indeed wanted a closure order on one of them, the Harridge Mill. However, T&N told the

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[2] They were, besides T&N, Cape Asbestos Co. of Barking; Cresswells Asbestos Co of Bradford; British Belting & Asbestos Co. of Cleckheaton; Small & Parks of Manchester; Ferro Arc Welding Co. of Wolverhampton; and Dick's Asbestos Co. of Fenchurch St, London. Absent were Morgan, Crossley & Co. of Manchester, G MacLellan & Co. of Glasgow, and Rochdale Asbestos Co.

Chief Medical Inspector that they had a large scale reorganization in view (which was true). This prospect carried weight with the Chief Medical Inspector, presumably, because it would mean the further development of a greenfield site at Hindley Green near Wigan (20 miles from Rochdale) where an 11.5 acre North Block, built 1946-49, was in operation. In effect the inspectorate allowed short term violations of the law in exchange for a realistic, permanent resolution of the problem. In fact the second factory at Hindley Green, South Block, was not fully commissioned until 1957-58 [20].

**Explaining T&N Board Attitudes Towards Asbestos Health Risks**

The case-based model of leadership and culture change proposed by Edgar Schein, an organizational psychologist at MIT's Sloan School of Management, seems to be the most appropriate heuristic tool for understanding the T&N-TBA boardroom culture [18]. It can be summarized in several propositions. Organizations may have several cultures (defined as the group's shared basic assumptions about their identity, activity, and relationships), but one will be dominant. The organization's founder, and his/her associates, will usually shape the initial dominant culture. Successor organization heads will maintain or modify that dominant culture. The founder's basic assumptions, values and attitudes derive from his own earlier experience. Founders and successors primarily embed their company cultures by whatever they seek to control; in how they react to organizational crises; in the kind of image they deliberately project [18].

What values and assumptions informed the Turner family, who dominated T&N and managed TBA in the 1920s-1940s? Sir Samuel Turner (1878-1955), T&N chairman 1929-44, son and nephew of the three brothers who in 1871 formed Turner Bros Ltd. (renamed TBA in 1916), was brought up in the United Methodist Free Churches. His family were pillars in the UMFC Baillie Street Chapel in Rochdale. Like many another Victorian churchgoing business dynasty, they took their responsibilities on accumulating capital and wealth seriously. At Spotland, the site near Rochdale where their cotton spinning and engineering works began processing asbestos in 1879, they exercised a solicitous and involved paternalism, fleetingly recorded in a company magazine [1]. Talented Methodist businessmen seemed to concentrate in late nineteenth century Rochdale. Living in weekly contact with the likes of Sir James Duckworth (1845-1915), head of a retail chain, and Sir James Edward Jones, another civic leader who worshiped at the Baillie Street Chapel, the Turners would have been especially careful to conform to the high moral code of sectarian Methodism [12].

How did the Turners reconcile the Christian ethic of the good neighbor with the emerging evidence of the harm their business was causing to their employees? Possibly they adopted a Utilitarian rationalization: employment for thousands was worth preserving in exchange for the deaths of dozens (see Table 1). This argument would not have been accepted by radical social critics in late nineteenth-early twentieth century Methodism: Hugh Price Hughes and his successors [12]. Nor did it square with the individualism ingrained in all varieties of Protestant Christianity.

Besides Methodism, a second source of values would have been the cotton manufacturing experience on which asbestos manufacturing at TBA was grafted. The inhalation of fibrous dust was acceptable in the cotton industry. The factory inspectors' turn-of-the-century standard text on occupational disease stated that "the

**Table 1. T&N Profits and Ordinary Div. Compared to Contrib. to the Asbestosis Fund, 1931-1948**

| Date | Profits after Tax & Dep'n (000£) | Ordinary Div. | | Annual Contrib. To Fund (£) | Comp. Paid to 140 T&N Claimants (£) | Cost of Medical Exams (£) | Total Outlays From Fund (£) | Number of Claimants |
|---|---|---|---|---|---|---|---|---|
| | | (%) | (000£) | | | | | |
| 1931 | 361 | 5.00 | 242 | | | | | |
| 1932 | 306 | 3.75 | 182 | | | | | 21 |
| 1933 | 407 | 5.00 | 242 | | | | | 7 |
| 1934 | 714 | 7.50 | 363 | | | | | 1 |
| 1935 | 781 | 10.00 | 484 | | | | | 21 |
| 1936 | 1,163 | 13.75 | 666 | | | | | 2 |
| 1937 | 1,333 | 16.25 | 866 | | | | | 4 |
| 1938 | 1,362 | 16.25 | 866 | | | | | 5 |
| 1939 | 961 | 11.25 | 600 | | | | | 10 |
| 1940 | 668 | 11.25 | 600 | 3,808 | | | | 3 |
| 1941 | 506 | 12.50 | 345 | 2,188 | | | | 12 |
| 1942 | 531 | 12.50 | 333 | 2,464 | 3,193 | | | 10 |
| 1943 | 553 | 12.50 | 300 | 2,655 | 3,731 | | | 6 |
| 1944 | 546 | 12.50 | 300 | 2,992 | 6,022 | | | 8 |
| 1945 | 629 | 12.50 | 300 | 3,059 | 6,787 | | | 8 |
| 1946 | 210 | 12.50 | 300 | 3,044 | 7,440 | | | 4 |
| 1947 | 727 | 15.00 | 360 | 7,475 | 7,124 | | | 10 |
| 1948 | 1,602 | 15.00 | 360 | 10,401 | 6,815 | | | 8 |
| Totals | 11,031 | | 6,899 | 87,938 | 57,476 | 15,690 | 73,166* | 140 |

Sources: T&N, Reports and Accounts, 1931-1848; T&N Board papers, Asbestosis Fund, Report for the year to 30 September, 1948, for Board meeting on 18 November 1948.

* Equals 0.66% of profits, 1.05% of ordinary dividends, and £523 per claimant.

Note 1: Totals are for the period 1931-48, though annual contributions and costs are unknown for the 1930s.

Note 2: Wartime profit figures probably understate the true situation. Provision for income tax on shares, National Defense Contributions and Excess Profits Tax were never less than 1.6 million, and as much as 2.6 million between 1941 and 1945. The figure for 1948 is very different possibly because it followed the Companies Act of 1948 which increased the disclosure of accounting information.

Note 3: From 1941 dividends were subject to 50 per cent and then 45 per cent income tax, deducted here.

Note 4: During the war years prices approximately doubled

cotton trade has little or no harmful effect as compared to other trades at the earlier age periods. After the age of fifty-five the death rate becomes enormous. There is, however, only a very small number of cotton operatives over the age of fifty-five" [17, p. 722]. The same text had just one reference to asbestos, classing it, however, with leadmining and pottery manufacture, among the most injurious processes known to man [17, p. 25].

In the absence of evidence, I suggest that the Turners simply ignored the problem until it became publicized. Then they adopted a stance of denial. Acknowledgment that their business was any more injurious than those of cotton or tobacco manufacturers was simply unthinkable. The reason was not economic, for the profits in Table 1 could have supported far more than the £9,826 of improvements estimated in 1932 as necessary for T&N to comply with the 1931 regulations [7]. At root, their stance was moral and emotional: commitment to their faith and paternalism precluded the possibility that the springs of their wealth were poisoned.

The transmission of the founders' assumptions and attitudes (that asbestos was not toxic or its dangers should be minimized; that evidence to the contrary should be denied unless supported by medical unanimity; and that government regulations were to be negotiated, not unquestioningly obeyed) was readily achieved by the longevity of Sir Samuel Turner. He was succeeded in 1944 as chairman of T&N by William Walker Frederick Shepherd (1895-1959) who joined as company secretary in 1927. Walker's key men at TBA in the 1940s and 1950s were Ronald Gray Soothill (1898-1980), the son of a Methodist minister and a Cambridge economics graduate who joined T&N from Cadburys in 1928; and Norton Arthur Morling (1909-94), another Cambridge economics graduate and pupil of Keynes, who joined T&N as a management trainee in 1930. All were long-conditioned by Turner attitudes and assumptions. All practiced a degree of self-deception in defense of suppositions it would be increasingly costly, in personal, organizational, and economic terms, to abandon. The existing culture would be maintained until the asbestos fatalities began to climb again in the 1960s, more medical research was done, and concepts of acceptable risk and product stewardship emerged.

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