Extra-Congress Submission

15.6 TURNERS AND THE ASBESTOS LEGACY IN CLYDEBANK¹

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Chapter in T. Gorman (ed), *Clydebank: Asbestos the Unwanted Legacy* (Clydeside Press, Glasgow, 2000)

Up to the 1960s a large number of 'Bankies' earnt their livelihood in either the giant Singer factory at Kilbowie or in John Browns engineering and shipbuilding – the company that constructed the Cunarders, the *Queen Mary* and the *QE2*. Exposure to asbestos occurred in both these workplaces with the product used heavily in ship insulation and also in electrical insulation around the sewing machine motors.¹ Less well known is the fact that Clydebank had its own asbestos factory, Turners Asbestos Cement Company (TAC), which operated for almost 32 years from 1938 until its closure in 1970. Turners was the third largest employer in the burgh in the 1950s. This chapter explores the history and the significance of Turners, Clydebank, using a range of sources including evidence drawn from oral testimony from Clydebank residents and former employees of Turners. The first section describes the development of Turners, locating this within the context of growing demand for asbestos products and the evolution of asbestos manufacture in Scotland. The second section analyses work conditions within the factory. Finally, we examine the legacy of Turners upon the community and the environment in Clydebank.

Turners and asbestos manufacture in Scotland

Scotland has a long association with the asbestos industry. Scottish entrepreneurs were amongst the pioneers in developing the manufacture of asbestos products, with the first companies appearing in the early 1870s.² By 1885 there were at least 20 asbestos manufacturers in Glasgow.³ The importance of the industry in Clydeside in this early period is suggested by the fact that of 18 asbestos companies (undoubtedly the largest) listed in a UK Trade Directory in 1884, 6 were located in Glasgow.⁴ The industry developed rapidly thereafter, especially on Clydeside. A Glasgow Directory listed 52 asbestos manufacturers, warehouses and agents and 26 boiler coverers in the city in 1900.⁵ Thus, the claim of the Turner and Newall Company in their own internal company history that this was the first asbestos factory in Scotland is very wide of the mark.⁶ The shipyards and engineering companies were the major users of the product in West Scotland before the 1930s, with boiler and pipe covering companies emerging which specialised in thermal insulation.⁷

Turner Brothers, the company that came to dominate the UK asbestos industry (as Turner and Newell), began manufacturing asbestos around 1920 from their plant in Rochdale. Demand for a variety of asbestos products – from insulating materials for shipbuilding, sheeting and pipes, to brake and clutch linings led the company to

¹ For more detail see R. Johnston and A. McIvor, *Lethal Work: A History of the Asbestos Tragedy in Scotland* (Tuckwell Press, Scotland, 2000)

expand during the interwar economic recession when so many other companies were contracting and laying off their workers. In the mid-1930s, Turners looked towards expanding its market in Scotland where there already existed a number of asbestos manufacturers and a growing market for the product, particularly in the Clydeside shipyards and in construction. Turners bought a plot of land at Dalmuir, Clydebank, previously owned by the defunct shipyard giant Beardmores. Here they constructed a massive new factory in 1938 to manufacture asbestos cement products, primarily for the construction industry.⁸





At the plant raw asbestos fibres were mixed with water and Portland cement to create asbestos sheeting and wall board, corrugated bitumen covered asbestos roofing panels, tiles, water tanks and non-corrosive pressure pipes for water mains. Such products were widely used at the Empire Exhibition at Bellahouston Park in Glasgow in 1938 and in armament and other factories constructed under the Defence Programme, as well as in post-war prefabricated houses.⁹ Turners continued production until closure in 1970, ostensibly as a consequence of 'excessive capacity', though the decision to close the Dalmuir factory may have been influenced by a protracted three month long strike for improved wages.¹⁰ The company also faced increased competition from the 1950s. Other multi-national asbestos companies expanded into Scotland. Most significantly, perhaps, Cape Asbestos and John Manville established Marinite Co. Ltd. in Glasgow in 1952 to produce asbestos panelling, widely used in the building industry and on ships as an insulator and fire retardant.¹¹

Working with asbestos in Turners

The TAC Dalmuir asbestos factory expanded to employ at maximum capacity in the 1950s some 320 workers, of which 45 were women.¹² After delivery the asbestos was stored in a shed on the site. Jack Walsh recalled how up to 3,000 tons of raw blue and white asbestos fibre was stacked in hessian sacks piled up to 30 feet high in this shed.¹³ Thereafter, the bags of asbestos were transported to the upper level of the factory and deposited in a mixing hopper. Here somebody worked attaching a sack over the outlet chute, constantly filling bags of the blended fibre to the required capacity. Another operator then took several of the sacks and loaded them into the 'beater', together with the required proportion of water and Portland cement. This machine created the asbestos cement which flowed downwards to the factory floor to be moulded into boards, panels, tiles and pipes. After this the products dried in ovens before dry boards and pipes were trimmed to size in giant cutting machines, with final preparation undertaken by hand. Some of the finished products were then sunk in seven large water filled vats to allow them to 'mature'.

The factory was organised on 'flow' principles, with the raw materials being processed stage by stage and moved from machine to machine by banks of rollers, not dissimilar to a steel mill. The majority of the TAC Dalmuir workforce could be classified as unskilled and semi-skilled machine operators, and a respondent from Donegal noted how a substantial proportion of Irish and Irish descendants were employed. Those whom we spoke to who worked in Turners differed, as you might expect, in their attitudes to their work. However, most noted that the work was very physical, dusty, dirty, noisy and dangerous. The photograph below shows a number of female workers in one of the final finishing departments, preparing the pipe joints, just after the factory was first built in 1938.



The preparatory processes with the dry asbestos fibres were amongst the most dusty, and hence dangerous jobs in the factory. Mary Sadler was directed as a wartime 'dilutee' into employment at Turners by the Labour Exchange in 1940 when a male machine operator left for the navy. She took on the heavy and dangerous job of loading and operating the 'beater' which created the asbestos cement. She described her work:

The job itself was quite interesting; I quite enjoyed it. I would never have left if the Blitz hadn't have come. I was in what was called the beaters. I was upstairs putting the fibres in and there was a man downstairs another floor below me. So many revolutions of water I put into the beater tank y'know. And then I went upstairs and I put in, if I remember right it was six bags of fibre, all different types of fibre in. He put on his light to say he was putting the asbestos in so we both did it at the one time, y'know. I used to flick the light and I was ready too. And that was all you did. You just put your six bags of fibre into the tank, the beaters beat it up and then it came out through and on to the machines and the men cut it off into sheets y'know. It was quite interesting. It was a hard job, because they were heavy bags, about 20-30 pounds in each bag of fibre and they said I could never do it because I was a slight 18 year old, y'know but you get there....It was quite a good job. I quite enjoyed it anyway. But that was really all there was to it. So many revolutions of water, so many bags of fibres, so much cement and it all went into this beater and it all mixed up into cement and then it came out through the machine cut it off into sheets.

Q Did the job involve opening up the sacks?

Oh yes, oh aye. It was like, you had a platform and then it was like a tunnel. This was where you put the....when you were on the platform you had so many bags....you opened them up and put them into this tunnel and your head was in the tunnel as well.¹⁴

Another Turner employee commented on the dusty atmosphere and confirmed that dust levels were most dense on the upper level:

The machines in it, they were flying up and down by you by you and they were blowing up the dust off the floor You got that used to it you didn't care about it, y'know what I mean. *O. Which was the most dustiest job*

It was mixed up in the loft where there was a big mixer y' know....Dust was flying around all over the place. He cut the bag and threw it into the machine. Anything that was left, he gave the bag a shake. You look up and you wouldn't even see the man who was working in it. Like everything else if you don't do it somebody else will. The firm didn't care if you jacked [left] or not. Oh no, no.¹⁵

By the time TAC started operations in Clydebank in 1938, the British government had introduced measures aimed at regulating the asbestos hazard. The Asbestos Regulations of 1931 were a response to growing medical evidence from 1924 of confirmed deaths from asbestosis (though a female factory inspector had recognised the problem as early as 1898). Britain was the first country to pass such pioneering legislation, which looked impressive, at least on paper. Provisions included the wearing of respirators; dust checks and suppression of dust through localised exhaust ventilation; medical checks and monitoring. Asbestosis was also made a prescribed occupational disease, which enabled workers to claim compensation. However, researchers have shown that in practice these regulations were relatively ineffective. Only a small proportion of workers in Britain exposed to asbestos were covered; the Medical Panels were too conservative and compensation too meagre; whilst the asbestos manufacturers, insulation companies and their employers' associations continued to deny the extent of the problem and to lobby to minimise their liability.¹⁶ Critically, the asbestos industry succeeded in getting only a core group of workers in so-called 'scheduled areas' included in the 1931 scheme. These were the primary *textile* manufacturing processes of crushing, carding, spinning, weaving and mattress-making. Laggers (including sprayers) and those working with asbestos brake linings were not included and nor were most asbestos cement workers. Turner and Newall's internal documents indicate that the risks were not deemed to be as high for such workers.

This is borne out in relation to the cement workers by the evidence of asbestosis compensation claims in the 1930s, which were much higher in the 'dry' processes in the scheduled areas than in Turners Asbestos Cement. Indeed, the risk in the asbestos cement section of Turner and Newall's UK business (which employed about 30% of the total Turner and Newall workforce) was regarded as so small that TAC were informed in 1939 by the parent company that they could stop the contributions they had been making to the corporations internal asbestosis insurance scheme.¹⁷ This is very significant. At just the point when TAC Clydebank started production Turners regarded asbestos cement manufacture as safe, with the risk of asbestos exposure causing health problems as negligible. Hence no special measures to minimise workers' contact with dust were deemed necessary.

Apart from the specific Asbestos Regulations, there also existed a general legal obligation upon employers under the 1937 Factory Act to provide a dust-free work environment. However, the evidence for TAC Dalmuir suggests that this was very poorly policed and enforced. This, combined with the exclusions under the 1931 Asbestos Regulations meant that many workers in TAC Dalmuir would be exposed to disabling and life-threatening quantities of dust. As the Turner and Newall historians Tweedale and Hansen note: 'at the periphery of the Turner and Newall business the

medical surveillance in the satellite firms grew even weaker or even non-existent'.¹⁸ They conclude their analysis by arguing that whilst the asbestos companies bear the brunt of responsibility for the escalating deaths, government agencies (including the Medical Panels) and policy-makers also bear some of the blame. Moreover, the major asbestos companies vigorously contested compensation claims whilst continuing to reap massive profits. Using Turner and Newall's own internal company papers as evidence, Tweedale and Jeremy have argued:

The company's health and safety policy was directed at minimisation and denial. This meant, *inter alia*, failing to treat many legitimate asbestosis claims sympathetically; misleading the government regulators about asbestos-related disease in shipyard insulation workers; attempting in the 1950s to suppress research about the carcinogenic potential of asbestos; and in the 1990s doggedly contesting 'bystander' mesothelioma claims from environmental exposure.¹⁹

The emergence of evidence that asbestos caused lung cancers in the mid-1950s and a specific tumour of the lung and abdomen lining (mesothelioma) in the early 1960s led to further changes in the law – notably the revised Asbestos Regulations of 1969 - and restrictions on the use of asbestos, including, in 1970-2, a ban on the importation and manufacture of blue (crocidolite) asbestos. In part, these measures were an admission that the 1931 Regulations had failed to protect all of those workers who were at risk. Why nothing was done in the intervening period is the real tragedy. These more effective controls over 1969-72 came too late for the Turners Asbestos Cement workers in Clydebank, many of whom had already inhaled fatal doses of the carcinogenic fibres whilst going about their daily work.

The oral evidence of ex-TAC Dalmuir workers shows that the Asbestos Regulations and Factory legislation were ineffective. Localised exhaust ventilation reduced but did not eliminate dust emissions and there is little evidence of workers at TAC wearing proper respirators or even basic face masks to protect themselves, even when sweeping the dust from the factory floor. Those we spoke to indicated that masks were either not provided, or were available but the necessity of workers wearing the masks was not impressed upon those working on the factory floor. A moulder, Nancy Ferguson, whose health was badly affected by asbestos, recalled how fellow female workers and herself used aprons, tied sacks around them and used scarves around their faces and heads to try to protect themselves from the insidious dust.²⁰ Mary Sadler also testified to an absolute lack of safety provision:

Q. Do you remember any safety precautions or did you wear a respirator?

I don't remember a mask or anything. No. First time I ever remember wearing a mask was when I went back into Singers after the war was finished and I became a - trust me to get all the dangerous jobs – a paint sprayer and it wasn't paint it was laquer for the sewing machines y'know. But no I don't remember any safety precautions at all....You never thought of danger. I mean asbestos was nothing. Just never gave asbestos a thought, y'know.

- Q. You weren't aware at the time of any dangers?
- No, not at all. That was 1940, 41.
- *Q.* This man who did the job taking the fibres and bagging them. Do you remember the job being dusty at all or the atmosphere being dusty?

Oh aye. It was a dusty atmosphere.... He was worse than me. I mean by the time I got the bags the bags were tied up. I was just next to him but I mean a lot of dust used to come out. *Q. Do you recall any exhaust ventilation - any ventilation pipes that sucked the dust and* fibres out of the plant?

I don't think these are things you think about, y'know. I don't remember anything like that.²¹

A machine operator employed at Turners between about 1958 and 1966 also commented on the lack of masks or protection:

Q. Did you have any respirators or masks?
Well I never had a mask and I'll be honest with you I never seen anyone...you had gloves that was to save your hands getting cut up.
So you never worked with a respirator or a mask at all?
Oh no, no. I dare say they wouldn't get away with that today....
I never even knew where they were. Never mind not wearing one. I'm not saying that they actually wasn't there but if they were there nobody offered them to you. Know what I mean.
You did get gloves. Your hands got that bad your skin got all worn off. The sheets was that sharp y'know.²²

Owen Lilley found himself walking the streets of Clydebank searching for work in 1964. When he arrived at Turners he was immediately taken on and started work the very next day. He described very graphically conditions in the plant in the mid 1960s:

....I'll never forget till the day I die the first impression of that place. It was like walking into Dante's Inferno without the fire. It was just Hell. The noise was unbelievable. The size of the machinery was awe inspiring you know, awe inspiring. Three big machines took up the whole width of the factory. They were a sheet machine, and a pipe machine, and then another sheet machine. Dust was flying through the air everywere, clouds of dust. And there were wee men walking about - I ended up dain it for the first two or three days I was there - sweeping the floor. Nae masks, just overalls. Clouds of stoor everywhere it just filled the air, and it was settling just as fast as they were sweeping it. And then it was then dumped. Shovelled intae wheel barras, takin out tae the side of the Clyde and dumped down at the grounds of what's the hospital down there now...Tae be heard. I know it sounds crazy but you had tae shout in a whisper. That was the strange thing, you had tae get in between the pitch of the machines and you could be heard.²³



Interestingly, other commentators noted how you could smell and taste the dust. As in the cotton industry, the major problem was the accumulation of muck and dust on the machinery. Owen Lilley continued:

The worst of the whole thing was the clean-downs. You had to clean the machine once a shift. You had big steel tools like scrapers, and they were for all the world like a big broad blade 6 or 7 inches long eh wide, with a handle maybe 4 or 5 feet long, that was made out of steel. And eh, you scraped off all the hardened asbestos cement fae round the sides of the machine with high pressure hoses and these scrapers. And every weekend the machines all closed down throughout the factory and they did what the called 'the clean down.' It was the big job when they did all the repairs tae the felts; washed out tubs and vats, and stripped everything back tae the bare metal and it was all washed away. And because you were working with high pressure hoses you got an awful lot of splash-backs and you were covered in wet asbestos cement. So you got on the bus with that and it started drying out and you were very popular with some of the bus conductors and so on. They thought the world of you sitting there making there seats all white you know. We nearly all carried newspapers just tae sit on in the buses so it didnae affect too many people. But we didnae know we were killing them.²⁴

Lack of knowledge and information on the hazards of asbestos left many in ignorance of the danger they were in. Either people were not told, or they were informed that the risk was minimal, associated only with one type of asbestos and with the 'dry' preparatory processes. Referring to the mid-1960s at Turners, Owen Lilley noted:

When you went in the door of Turners asbestos there was a Factory Act with all the stuff. The only problem was that you couldnae see through it with the layer of asbestos cement on the glass you know. We were offered masks and told tae use them if we were upstairs at the beaters with blue asbestos, the dry form which if you breathed it in it was bad for you. They didnae tell you that once it came down it was wet then it dried out it could make you just as ill. You never got any warnings of that kind. You never got any warnings about brown asbestos; you never got any warnings about white asbestos. Ah, you weren't told that when you took it home in your clothes your wife was going to breath it in as well. As far as we were concerned the only dangerous stuff was the stuff that came out the bag and went intae the beater. That was the only time that was dangerous.²⁵

Another Turner machine operator demonstrated an acute awareness of the potential of his cutting machine to take fingers off if you weren't careful but, significantly, when asked when he first realised that asbestos was dangerous replied: 'Oh, I was ignorant of the fact, ignorant of the fact, aye. I, I don't really know. I cannae answer that question'.²⁶ This is indicative of a tendency for workers at this time to be more aware of the immediate threats to their safety at work, and less aware of occupational health problems which incubated over long periods of time. The provision of gloves but not respirators mentioned before is also significant in this context. Clearly, the wearing of masks was not being enforced and workers were not being adequately informed of the long-term effects the inhalation of asbestos dust could have upon their health. Nor have we come across any evidence that there was systematic medical surveillance and monitoring of TAC employees. None of the respondents we spoke to could recall any such medical scheme.

More research is necessary to determine the reactions of asbestos companies in Scotland such as Turners, MacLellans and Cape (Marinite) to the discovery over 1955-60 that asbestos caused cancer. The oral evidence indicates, however, that at TAC Clydebank the response was inadequate. Clearly, by the 1960s *some* Turners workers in the most dusty processes were using masks. However, as in the shipyards, those working in the immediate vicinity were not deemed to be at risk and hence not effectively protected. There was still an assumption in this period that very large quantities of dust needed to be inhaled to get cancer, indicated in the fact that compensation was initially only allowed where lung cancer was diagnosed in *conjunction* with asbestosis. As asbestosis was not deemed by the manufacturers to be a problem in asbestos cement production, the risk of cancers amongst such workers was probably also deemed to be negligible in the 1960s.

Other testimony indicates that by the 1960s some (if not all) of the heavy cutting machinery was fitted with exhaust air extractors to draw away most of the dust. One machine operator whose job involved cutting 10 foot long pipes into six inch 'pots', described such an extractor, though he also noted that his had a tendency to get blocked and needed to be relieved by a heavy bang with a brush. He did not use a mask at his work, described conditions as 'terrible' and 'crap' and only stuck the job for a year.²⁷ This experience ties in with others and suggests a growing recruitment problem and a considerable turnover of workers at Turners by the 1960s. Few, it appears, tolerated such conditions for any length of time. One Irish machine operator described bitterly how he left the plant after several years in the late 1950s / early 1960s only to be forced to return because he was desperate for work and had a young family to provide for: 'They were always going and coming. Always people going out and new ones coming in. A good man wouldn't have stayed in it. Any man that has any sense'²⁸

Making matters worse was the fact that the plant does not appear to have been unionised before the 1960s. One respondent described how wages were relatively poor in the 1960s and how management deducted the cost of any damages to sheetings from these already meagre earnings.²⁹ Whether the factory regime at Turners was any more or less draconian than other Clydeside employers at this time is not known. The evidence suggests, however, that there was very little, if any, organised protest against conditions at TAC Dalmuir until the late 1960s. Significantly, the three month 1970 strike for higher wages was reported to be the first in the history of the plant.³⁰ Instead workers voted with their feet, leaving Turners for more congenial employment elsewhere. This was probably facilitated by the expansion in job opportunities in the 1960s. For some, however, this was not an option. The wife of a machine operator who worked in the plant for around 8 years commented:

He was frightened to walk out of the job because he was married with a family and he just could not afford to do it, and that was the ins and outs of it. It was a job, the money was coming in....

What could we do, we were trying to bring up two kids We were trying to bring them up as decent as possible and do our very best....Folk don't really understand when you actually say to them. I was trying to do the best for my husband, my family and my children.³¹

In response to the question: were you aware that asbestos was dangerous? Her husband replied:

I knew it was dangerous before I went in there 'cause there was people complaining but when you have two of a family to bring up it was better than walking the streets. I never was idle in my life.³²

Moreover, Like the Singer Corporation in Clydebank, Turners developed something of a reputation as a welfarist employer, with extensive sports and welfare facilities, including a gym and works football, badminton, golf and bowls teams.³³ This perhaps did something to sweeten the pill, helping some workers to tolerate what were by all accounts very grim working conditions in the 1960s.

The legacy of all this was a high incidence of asbestos-related diseases amongst those formerly employed by TAC. Precise figures are not known, but the weight of evidence appears irrefutable. Clydebank Asbestos Group have recently identified five confirmed deaths of ex-Turner workers from mesothelioma.³⁴ An ex-Turner employee noted in 1987 that he could cite the names of a dozen former colleagues who had died as a consequence of asbestos exposure.³⁵ Three out of four of the ex-Turner workers we interviewed suffered from some asbestos-related respiratory disorder. In 1993, 12 workers in a Turners works photograph taken 40 years previously in 1953 were discovered to have subsequently died of breathing-related problems (see photo below).³⁶ Whilst not definitively traced back to asbestos in all cases, the prevalence of lung disorders of this magnitude indicates dust inhalation as the primary cause. Misdiagnosis by doctors in the 1950s and 1960s was also not uncommon, so the full extent of this particular tragedy will probably never be known.. In one of these cases, Nancy Ferguson was told by her doctors that she suffered from emphysema due to her smoking. However, a post-mortem found a substantial amount of asbestos fibre in her lungs. Tragically, Owen and Margaret Lilley have both been diagnosed as asbestotic – he as a result of working at Turners and she from washing his asbestos-impregnated work clothes. Turners thus contributed to a somewhat unusual pattern of asbestosrelated disability and mortality in Clydebank. Male mesothelioma deaths were high; but so were female mesothelioma deaths in Clydebank, which exceeded the expected incidence by more than ten times.³⁷ Employment in Turners cast a dark shadow, long after the whirring beaters, thudding rollers and shrieking cutters fell silent in 1970. Asbestos shattered people's lives. Owen Lilley poignantly described the impact his disability had:

Well we used to live in reasonable comfort. We're living just sort of on the poverty line I would say. Its difficult. Margaret's very very good at making ends meet. *Q. What effect has all this had on your social life?*

Well the health aspect has had more impact than the financial impact actually. The health aspect has stopped us going anywhere and dain things. We use to be running about *all* over Scotland. Everywhere we went we made friends We could still dae that even though we're skint, but we cannae dae it because of the ill health....Och aye we had a lot of fun. And we've got a lot of memories, and in here I'm still wanting tae dae all these things but I cannae dae them. Margaret's the same. On a day like this I'd had been up at Arrochar or something and never thought anything about it. A wee tent 'come on let's go'³⁸

Apart from the mortality caused by asbestos-related diseases, industrial disability was responsible for pushing victims and their families into relative poverty and invariably into what sociologists and policy makers are now apt to term 'social exclusion'.³⁹



Turners and environmental pollution

The consequences of Turners Asbestos went far beyond the workers who came into direct contact with the deadly fibres during their daily work. The community was directly affected in three ways. Asbestos dust, emanating either from the factory or its waste tips, blew into the neighbouring streets. One Clydeside resident noted how the end of Agamemnon Street adjacent to the Turners factory was covered in white dust which settled on cars and window sills.⁴⁰ Secondly, the wives and families of the predominantly male Turners workforce were exposed to the risk of contracting asbestos-related diseases through contact with the dust on work clothes and overalls brought into the home. Two wives of TAC workers commented independently on the dust brought into the home on work clothes.⁴¹ Tragically, one of these now suffers from pleural plaques associated with this secondary exposure to asbestos dust caused by regular washing of work overalls.⁴² The wife of a machine operator recalled in conversation with her husband:

See when you went into it and you came out that first day. When I said to you how did you get on, you said to me it was ok, it was a good job. I said why are you all white? He had pure black hair. Your black hair was pure white with the dust..... The man came home and he was pure white, actually white with dust. It was a nightmare, a pure nightmare.⁴³

Her husband noted the lack of facilities to wash before returning home, contrasting the situation at Turners with Singers:

There was no such thing in it as a shower bath either when you finished working. Not at all. No your hands and clothes were all cement and everything. If you washed your face you were washing the cement into it. I was in Singers a wee while before that. That was a good clean job. I just didnae like it because it was shiftwork as well. You got a shower bath in Singers.⁴⁴

Thirdly, the company contaminated the area with indiscriminate dumping of asbestos waste for more than 31 years. This left a polluted site, including a large, uncovered asbestos waste pile when the plant closed down in 1970.

If you glance at the map, you will see that Turners factory was located close to the banks of the Clyde. Throughout its existence from 1938 to 1970 all the waste asbestos cement was put through a crusher and this, plus asbestos cement silt from the bottom of the maturing tanks in the factory, was taken from the plant and dumped down at the river bank and the mud flats adjacent to the factory. The Turners employee responsible in the 1960s for this asbestos disposal, Jack Walsh, testified in 1987 that 'all the ground between the factory and the river along the whole frontage was reclaimed by dumping asbestos waste'.⁴⁵ He estimated that this represented an area around 1,000 yards long by 40 yards wide by 7 yards deep. It appears that nothing was done to make the site safe for a decade after TAC closed. In 1980 this situation was exposed in the press. Commenting on the issue, Ted Rushworth, the Director of the Cancer Prevention Society, highlighted the cancer risk to the community that the dumped asbestos represented and expressed his amazement that Clydebank residents had tolerated such 'scandalous contamination' for so long.⁴⁶ Some asbestos removal was undertaken on the site in 1980 and a more extensive clean up job undertaken by the Council in 1985, costing some £400,000. This essentially involved covering the asbestos on site. Attempts to recoup the costs from the owners of the site, Monaville Estates, failed because they lacked liquid assets.⁴⁷

This only partially solved the problem, which resurrected again when a private U.S. health company approached the District Council and the Scottish Office in 1987 with a bid to purchase the site. Their proposal was to build a private 260 bed intensive care hospital, which incorporated a postgraduate medical education centre and a hotel on the Turners site. Amidst much controversy and public protest, and the opposition of the Labour Party and the health unions, the Secretary of State for Scotland Malcolm Rifkind gave planning permission for the building of the private health facility which became known as Health Care International Scotland. Amongst the incentives offered to the health consortium was an agreement that the site be completely cleared of all asbestos waste, with the cost borne by the Scottish Development Agency.⁴⁸ The Clydebank District Council was split on the issue and only granted planning permission for the asbestos removal at Dalmuir on the casting vote of the Chairman after a tied vote.⁴⁹ The asbestos was excavated, dumped in a dredged and deepened nearby disused dock basin (the Arnott Young Basin) and covered with concrete. The original projection was that the cost of clearing the site would amount to around $\pounds 2$ million. In the event there were major difficulties and costs soared. Subsequently, the total cost of clearing the asbestos contaminated site at Dalmuir escalated to £8 million of taxpayers money.⁵⁰ The final irony in the story of Turners Asbestos Cement in Clydebank is that there now exists a luxurious, state of the art private health facility providing treatment and care for those fortunate enough to be able to afford it on the very site where the manufacturing of asbestos had contributed to undermining the health and destroying the lives of many workers from the Clydebank area.

References

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¹ Asbestos Oral History Project (AOHP), Interviewee A25 (a boilermaker-plater at John Browns, 1934-51). Oral testimony: Locky Cameron (Clydebank Asbestos Group) on Singers. His contact was with sheets and strips of brown (amosite) asbestos.

² A.L. Summers, Asbestos and the Asbestos Industry (1919), p. 10; St-J. Vincent Day, 'On Asbestos', Institution of Engineers and Shipbuilders in Scotland, 5 December, 1871 (Glasgow, 1872).
 ³ Post Office Directory of Glasgow, 1884-5, p. 888.

⁴ Kelly's Directory of Merchants, Manufacturers and Shippers (England, Scotland and Wales), 1884, p 185.

⁵ Post Office Directory of Glasgow, 1900-01...

⁶ Turner Asbestos Company (TAC) History, *Origins to End of 1967* (1968), p. 181. Copy in Clydeside Action on Asbestos Archive, Glasgow.

⁷ For more detail see R. Johnston and A. McIvor, 'Incubating death: working with asbestos in Clydeside shipbuilding and engineering, 1945-1990', *Scottish Labour History*, no 34, 1999.

⁸ Clydebank Press, 25 February 1938

⁹ *Glasgow Chamber of Commerce Journal*, XXII, April 1939, no. 4, p. 96; TAC History (1968), p. 181. TAC boasted that the Glasgow Empire Exhibition had 320,000 square feet of asbestos cement and 250,000 square feet of fire resistant 'Turnall' asbestos wallboard.

¹⁰ Clydebank Press, 1 May 1970; 29 May 1970; 24 July 1970; 7 August 1970.

¹¹ Glasgow Herald, 27 May 1952

¹² M.S. Dilke and A.A. Templeton, *Third Statistical Account of Scotland* (Glasgow, 1959), p. 235; Clydebank Burgh Council, *Official Handbook, 1960*, p. 39. The 1966 Handbook reported 275 employed.

¹³ *Evening Times*, 26 October 1987. Owen Lilley also testified to the use of the more dangerous blue asbestos in the works.

¹⁴ AOHP, Interviewee A22A. This respondent suffers from the asbestos-related disease pleural thickening.

¹⁵ AOHP, Interviewee A23.

¹⁶ G. Tweedale and P. Hansen, Protecting the Workers: The Medical Board and the Asbestos Industry, 1930s – 1960s', *Medical History*, no 42,1998; D. Jeremy, 'Corporate responses to the Emergent recognition of a Health Hazard in the UK Asbestos Industry: the case of Turner and Newall', 1920-1960, *Business and Economic History*, no. 24, 1995; M. Greenberg, 'Knowledge of the Helth hazard of Asbestos Prior to the Merewether and Price report of 1930', *Social History of Medicine*, no. 7, 1994; Johnston and McIvor, 'Incubating Death'. For a less critical perspective see P. Bartrip, 'To Little, too Late? The Home Office and the Asbestos Industry Regulations, 1931', *Medical History*, no. 42, 1998.

¹⁷ N. Wikeley, 'Turner and Newall: Early Organizational Responses to Litigation Risk', *Journal of Law and Society*, 24, 1997, pp. 258-9. See also N. Wikeley, 'The Asbestos Regulations, 1931: A Licence to Kill?', *Journal of Law and Society*, 19, 1992.

¹⁸ Tweedale and Hansen, 'Protecting the Workers', p. 444.

¹⁹ G. Tweedale and D.J. Jeremy, 'Compensating the Workers: Industrial Injury and Compensation in the British Asbestos Industry, 1930s – 60s', Business History, vol 41, April 1999. See also G. Tweedale, *Magic Mineral to Deadly Dust: Turner and Newall and the Asbestos Health Hazard* (Oxford University Press, forthcoming, 2000)

²⁰ Evening Times, 16 June 1993

²¹ AOHP, Interviewee A22A.

²² AOHP Interviewee A22A.

²³ AOHP, Interviewee A19A

²⁴ AOHP, Interviewee A19A

²⁵ AOHP, Interviewee A19A

²⁶ AOHP, Interviewee A24

²⁷ AOHP, Interviewee A24

²⁸ AOHP, Interviewee A23.

²⁹ AOHP, Interviewee A23

³³ Clydebank Press, 7 August 1970

³⁷ Figures provided by the Health and Safety Executive, Epidemiology and Medical Statistics Unit, Bootle, Merseyside. A UK mesothelioma death register has been kept since 1968 from which standardised mortality rates have been calculated.

³⁸ AOHP, Interviewee A19A.

³⁹ This is discussed in more detail in R. Johnston and A. McIvor, 'Pushed into Social Exclusion', *Scottish Affairs*, forthcoming, 2000.

⁴⁰ We are grateful to Jim Cameron for this comment.

⁴¹ AOHP, Interviewees A19B and A23B.

⁴² AOHP, Interviewee A19B.

⁴³ AOHP, Interviewee A22B

⁴⁴ AOHP, Interviewee A22A.

⁴⁵ Evening Times, 26 October 1987

⁴⁶ The Scotsman, 4 June 1980.

⁴⁷ Lennox Herald, 20 December 1985.

⁴⁸ Glasgow Herald, 8 March 1991; Evening Times, 12 March 1991.

⁴⁹ Clydebank Health Care Campaign, *Case for a Public Enquiry* (Clydebank Library, ref. 362.11.L.C.)
 ⁵⁰ Ibid. See also Clydebank Health Care Campaign, *Reply to Comments on an Asbestos Removal*

Scheme at Clydebank (Clydebank Library, ref. 362.11.L.C.) and J.D. Coull, Environmental Safety

Guide, Comments on an Asbestos Removal Scheme at Clydebank Clydebank Library, ref. 362.11.L.C.)

³⁰ Clydebank Press, 1 May 1970; 29 May 1970; 7 August 1970.

³¹ AOHP, Interviewee A22B

³² AOHP, Interviewee A22A.

³⁴ Information provided by the Clydebank Asbestos Group Chairperson, Locky Cameron.

³⁵ Evening Times, 26 October 1987. Jack Walsh.

³⁶ Evening Times, 16 June 1993.