FILE NAME: Colonial Sugar Refinery (CSR)

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IN THE SUPREME COURT )
)
OF WESTERN AUSTRALIA )

Heard: 13 June 1979, 17, 18, 19, 24, 25 & 27 September 1979
Judgment: 9 October 1979

No. 1052 of 1979

B E T W E E N:

JOAN MARY MACDONALD JOOSTEN
Plaintiff

-and-

MIDALCO PTY. LTD.
Defendant

Mr. H. W. Olney, assisted by Mr. K. F. Smart and instructed by Taylor Smart & Co., appeared for the plaintiff.

Mr. G. A. Kennedy, Q.C., assisted by Mr. G. T. Sadlier and instructed by Robinson Cox & Co., appeared for the defendant.

Authorities cited -

Cartledge v. E. Jopling & Sons Ltd., (1963) A.C. 758
Pickett v. British Rail Engineering Ltd., (1978) 3 W.L.R. 955
Brown v. John Mills & Co., (8) K.I.R. 708
Wright v. Dunlop Rubber Co. Ltd. and I.C.I., (13) K.I.R. 255
Fleming: The Law of Torts, 5th Ed., p. 106
Donoghue v. Stevenson, (1932) A.C. 562
Skelton v. Collins, (1966) 115 G.L.R. 94

WALLACE J.

In this tragic cause the plaintiff, a 52 year old married woman who is a qualified stenographer, seeks damages at common law because of the fact that she contracted the disease known as Mesothelioma whilst in the employ of the defendant between the month of September 1950 and early 1953. On 28th February 1978, the Pneumoconiosis Medical Board determined pursuant to s. 8 of the Workers Compensation Act that she was suffering from the aforesaid disease 100% and was thereby disabled from earning full wages. However, the plaintiff now grounds her claim in negligence against the defendant and I shall refer to the full particulars alleged later. Whilst the defendant has in its pleadings denied the nature of the injury suffered by the plaintiff and the cause thereof at trial, it was really not argued against. It became clear on the medical evidence adduced that the

plaintiff is suffering from Pleural Mesothelioma caused by the inhalation of blue asbestos fibre, crocidolite, and the lodging there in the plaintiff's pleura whilst working in the defendant's office near to its mill at Wittenoom and that the disease from which she was suffering was first identified in February of 1978, although it had not been revealed by x-ray examination in early January 1975. There is no known cure for Mesothelioma and the plaintiff's life expectancy is now very short. Apart from damages the only issue before the Court is as to whether the plaintiff's injury was foreseeable.

Prior to 1939, asbestos was not mined in Australia to any great extent. During the war years white asbestos fibre was used by the building materials division of Colonial Sugar Refinery Ltd., the parent of the defendant, (C.S.R.) in its manufacture of asbestos cement products. Such asbestos was imported from Canada and Rhodesia. The white asbestos fibre is found in the rock chrysotile which is comprised of hydrated silicate of magnesium, containing little iron and practically no calcium. In about the year 1944, Colonial Sugar Refinery Ltd. operated a chrysotile mine at Zeehan in Tasmania. Chrysotile is a softer rock than that of crocidolite within which blue asbestos is found the composition of that host rock containing mainly silicates of iron. Prior to 1943, crocidolite had been gathered and crushed in a primitive plant at Wittenoom in Western Australia. At the behest of the Commonwealth and State Governments and for the purpose of promoting its building materials division, C.S.R. investigated Western Australian blue asbestos in the year 1943.

The blue asbestos to which I have referred is situate in the gorges of the Hamersley Ranges surrounding Wittenoom, approximately 1000 miles north north-east of Perth and 200 miles east of Roebourne. In 1943, there was no town and no sealed roads and the defendant formed for the purpose of developing both the mine and mill had to start from

scratch. The area suffers a most inhospitable climate being both hot and dusty other than the dust created by the milling to which I will refer. After what appears to have been little better than a cursory investigation development commenced but the acquisition of appropriate machinery and materials during wartime slowed progress. Most of the original machinery and buildings appears to have been purchased from abandoned mines and sites elsewhere in the State. In the early days of the mill's development, no more than 8 to 10 tons of bagged fibre was trucked to Port Samson weekly. The host rock was found to be much harder than anticipated and very heavy on the wear and tear of machinery used to crush it and extract the fibre. Metal ducting used for that purpose and to extract dust from each plant became rapidly worn and pierced by the small particles of abrasive material. However the emphasis was upon increased production and to that end the defendant's officers were constantly employed.

This is not a case where the credibility of any witness is greatly in doubt. Whilst on the one hand there may be a natural tendency for the plaintiff and her witnesses to exaggerate the volume of dust in which the plaintiff and her husband were required to work, it may equally be said that the defendant's officers have perhaps reduced the incidence. I have found the plaintiff and her husband witnesses of credit as indeed is the position of the medical experts called by both sides and I hold the same view of the defendant's officers. They are and were in my opinion impressive, well trained technical experts responsible to the defendant, its parent and employees engaged in working at Wittenoom. Whilst I shall refer to the incidence of dust arising out of tests conducted by Mines Department inspectors, it is sufficient at this stage to say that both the mill and office wherein the plaintiff worked and, for that matter, the staff settlement some three-quarters of a mile away were from time to time, depending upon the direction in which the wind was

blowing, subjected to considerable dust fallout from the mill. On the other hand, the defendant's officers were at all times conscious of the nuisance and as I find, made every endeavour to reduce the dust incidence by changing and upgrading the machinery used for that purpose and indeed the method of extraction of the mineral. The milling of crocidolite differs from that of other minerals in that the process does not involve the wetting of the fibre. Thus the dust hazard is increased.

The extraction of blue asbestos fibre involves the crushing of the crocidolite within which it is contained progressively from large to small pieces for the purpose of freeing the mineral fibre. For the period 1946 to 1949, the process involved a primary crusher, secondary crusher, rolls, two screens, further rolls, before reaching the first of the three stages of fibre and dust extraction. The first stage involved extraction of fibre and dust by means of a cyclone, in the case of dust separated from the fibre two cyclones before release to atmosphere. The second stage involved the extraction of dust from two cyclones into two hessian rooms inside galvanised walls where the dust laden air was blown. The third stage involved the extraction of both fibre and dust from the shaker screens by means of a cyclone and the collection of dust in the multiclone dust separator. It very soon became obvious that the hessian rooms were unable to perform their respective tasks satisfactorily and the multiclone dust separator failed due to rapid wear of internal pipes. It is at this stage that the defendant employed the use of a Warman dust collector which is best described as involving the submersion of the host rock and fibre in water, a process which was rapidly found to be unacceptable to the defendant's main customer because of the adverse effect which moisture had upon the water holding capacity of the mineral fibre. Experimentation with the mill plant had reached this stage when the plaintiff's husband, they were not then married,

commenced his employment with the defendant in about the month of April 1950.

Conditions at that stage had advanced from the primitive facilities which the original manager Broadhurst first experienced. He was substantially responsible for the early design of the mill office and settlement. An initial difficulty was to find sufficient level space at the floor of the gorge where the mine, mill, power house and office were situate, above flood level. The office building was purchased as a prefabricated house consisting of two bedrooms, living room and amenities. This was apparently enlarged by enclosing the verandah which went around three sides of the building with a corrugated galvanised iron dado approximately 3 ft. high and above it flywire mesh to the roofline which overhung for protection from sun and rain. The open flywire mesh permitted free circulation of air. The office building was situate, upon all of the evidence before me, anywhere between 50 to 100 yards from the mill - in the opinion of the plaintiff only 100 yards or so.

The plaintiff's husband is a trained fitter and machinist. At the time he went to Wittenoom he was engaged to the plaintiff. The plan was for him to work and save there for a period of six months, which term qualified him for a return paid air fare, whereupon he would marry the plaintiff and they would then return to Wittenoom where both would work to earn as much money as possible before returning to the metropolitan area. In early September 1950, the plaintiff went to Wittenoom with her new husband and shortly thereafter commenced in the defendant's employ as a stenographer in the office to which I have referred. It is her evidence that the office was not cleaned regularly, that it was always dusty and that the flywire screens surrounding the working area were clogged with dust. It is the evidence of the defendant's servants that whilst there was certainly dust in the office, it was not as dusty as the plaintiff claims and they pray in aid therefor the fact that draftsmen worked

within the area and that they required clean working conditions. Furthermore, the office housed machinery such as typewriters and the defendant's pedal radio, all of which were kept clean. Certainly there was no air-conditioning and no suggestion that respirators should be provided or used while engaged in employment in the office building. I find it difficult to accept the plaintiff's evidence that the building was never cleaned by the defendant, having regard to the quality of its officers, but nevertheless I am prepared to accept that on occasions it was subjected to uncomfortable concentrations of dust. There were no sealed roads and the whole area was dusty. Oddly enough it was the custom of both the plaintiff and her husband to eat their lunch daily in close proximity to the office and one can only assume that they did this in circumstances where the dust incidence was not so grave as to interfere with the enjoyment of that meal.

Broadhurst regarded the incidence of dust as a nuisance to be eradicated. He did not think that there was any particular risk because his understanding of silicosis at the time was that it required long term exposure to pollute a worker's lungs and the company intended to have the dust incidence well under control before such a period of time should expire. Initially one cyclone was used for the extraction of fibre and dust and it was immediately seen that it would be necessary to use two,and two cyclones were brought into operation. Gradually the process was built up to that which I have previously described. As each measure failed new measures were brought into operation. Whilst the defendant's servants had little or no experience of asbestos mining, they had, it seems, read the text books which were available at the time and visited asbestos mills operating in South Africa and Canada. The company brought out two experts from America to live at Wittenoom and assist its staff in overcoming its problems. When the Warman dust collectors failed, the

company consulted H. B. Gregory in Sydney and S. W. Hart in Perth and a rotorclone was especially designed by Gregory to overcome the plant's problems. I accept Broadhurst's evidence that the company through its officers never let up on the suppression of dust and the use of rotorclones for the purpose of further reducing its incidence. The mill which the company originally established closed down by the year 1958.

The evidence of the company's mill superintendent in 1950, Allan, and Mines Department inspector, Faichney, is that between 1950 and the end of 1952 to early 1953 when the plaintiff left Wittenoom both the company and the Mines Department were concerned as to the incidence of dust upon the working conditions of the company's employees. The Department was primarily concerned about mine workers only, its jurisdiction not extending to the position of office workers. The concern for dust, however, arose only out of the knowledge that working in dusty conditions over a period of time may occasion the formation of silicosis in the lungs of the worker. Faichney went as far as to say that his concern was as to the incidence of silica dust and not asbestos fibre. Indeed, the instrument used to assess the dust incidence does not appear to have been designed to take in long asbestos fibre though I hasten to add, however, that the fibre responsible for Mesothelioma is very small. In Faichney's report of 21st August 1951, under the sub-heading "General" he has set it out: "On examination of the dust samples both from underground and the treatment plant, the amount of fibre visible is very small. Some samples appear to have no fibre present and an estimate of the percentage of fibre present in the air would be very difficult to make". No dust sampling was taken at the company's office and Faichney did not think that any risk was attached to workers in that area. Faichney could not recall when he became aware of the distinction between asbestosis and silicosis. "I had

heard of the term 'asbestosis' but I was never really cognisant of the hazards of it".

In the opinion of the Department of Mines the permissible volume of dust particles was 300 per cubic centimetre. There is no authority to support such an assertion. By that I mean there is no criterion laid down in the Mines Regulation Act or the regulations made pursuant thereto. Nor, for that matter, is the safe limit of the number of particles per cubic centimetre identified in any health literature or regulation of the Department of Health. In Inspector Lloyd's report of 13th October 1950, addressed to the State Mining Engineer, all readings within the treatment plant exceeded 300 ppcc. Most stations were in excess of 1000 ppcc. ranging down through 740 ppcc., 560, 480 to 410. At the power house next to the mill the count taken was 210 and in the centre of the fitting room, in the same building as the power house, 80 ppcc. whilst in the men's dining room, 1000 ppcc. At that stage work was in progress to improve the dust incidence. A count taken in August of 1951 shows a very much improved position though five of thirteen tests revealed figures in excess of 300 ppcc. ranging as high as 620 ppcc. A sample taken in the centre of the mill building revealed a count of 155 ppcc. A great deal must depend upon where and how the sample is taken. In July 1952, five of the stations within the mill plant exceeded 300 ppcc., the No. 1 screen having a count in excess of 1000. The problem is that the dust counts taken did not differentiate between rock and fibre and the only evidence before me as to the permissible limit of asbestos dust for working atmosphere is contained in a memorandum from the Commissioner of Public Health to the Under Secretary for Mines of the 26th October 1951, specifying a figure of 176 ppcc. for asbestos dust. That memorandum emphasised the dangerous hazard to the health of workers carrying out their duties in an asbestos fibre laden atmosphere.

Whilst I have set out something of the incidence of dust at the mill, there is no evidence that any report on such figures was sent to the defendant or its officers, nor is there any evidence that the reports of Inspectors Lloyd and Faichney and the memorandum of the Commissioner of Public Health were made known to the defendant or its servants. There is no evidence that either the Department of Mines or the Department of Health took any action to remedy what may have been thought to be an undesirable state of affairs at the company's mill at Wittenoom. This is important when one has regard to the difficulties of hindsight when assessing a situation which existed 25 years before the plaintiff's illness was diagnosed.

The departmental position of the company's office is best described by Faichney in his departmental report of 19th August 1953, after the plaintiff had left Wittenoom, when he wrote: "I consider the worst feature of the mill is the cloud of dust which arises from the mill and either drifts down to the ground or blows down the gorge. It seems to have a demoralising effect".

Apart from Allan having heard of the disease of asbestosis, none of the defendant's servants had regard to the health aspect of the incidence of dust at Wittenoom other than considering it a nuisance to be eradicated so as to improve working conditions. There was no reference to dust hazard in the textbooks which they had read prior to establishing the mine and mill plant and there was nothing that they could gather from their respective overseas experiences. Their only knowledge of health hazard was that relating to silicosis. The plaintiff, however, maintains that she was owed a duty by the defendant and its officers to fully inform themselves from medical writings available before 1944 as to the dangers of asbestosis.

On 24th March 1930, the document known as the Merryweather and Price Report on Effects of Asbestos Dust on the Lungs and Dust Suppression in the Asbestos Industry was laid before the United Kingdo Parliament. That report undoubtedly establishes the fact that the inhalation of asbestos dust over a period of years results in the development of a serious type of fibrosis of the lungs (asbestosis) and that the development of the disease varies in direct proportion to the length of exposure to dust. The report is based upon studies made of workers involved in the asbestos textile industry in the United Kingdom and other such studies involving case histories made by medical experts up until that time. The textile industry to which I have referred involved working with the pure asbestos fibre, a task involving exposure thereto in excess of that of any worker in a mill plant other than those involved in bagging out the fibre material. It would, of course, be very different to the position of an office worker such as the plaintiff. On the other hand, the report clearly established the existence of a distinct type of fibrosis of the lungs (asbestosis) resembling silicosis in its main clinical aspects, but differing from that disease in the mode of distribution of the fibrous tissue in the lungs, in its radiological features, in the enhanced rate of development under average conditions, and as far as the evidence went, in a lower susceptibility to the supervention of pulmonary tuberculosis. It certainly would have formed a far graver warning to the defendant's officers than their 1944-53 knowledge of silicosis. The Merryweather and Price Report was available for perusal in Western Australia by September of 1932.

Merryweather again reported to the Minister of Labour and National Service in the Parliament of the United Kingdom in January of 1949, in a report which became available in this State in 1951. That report is important because of the manner in which it linked asbestosis to carcinoma of the lungs. It further revealed a

considerable reduction in the range of years of exposure both with respect to asbestosis and carcinoma. For the former it became as low as six months and for the latter eighteen months. Nowhere, however, is the disease of Mesothelioma mentioned. It is common ground that it was not generally accepted as a primary tumour until the 1960's. What is Mesothelioma?

Whereas in the case of silicosis and asbestosis, fibrosis of the lungs is involved as the result of the inhalation of silica dust and asbestos dust respectively, Mesothelioma occurs where the asbestos fibre lodges in the pleura, that is, the membrane envelope surrounding the lungs externally and at some substantially latent period results in the emergence of a malignant tumour spreading throughout the pleura and compressing the lung and organs contained therein. It can invade locally the ribs or the diaphragm of the victim and can also spread by the bloodstream to other organs. The cause, however, is not solely related to asbestos. In the investigations made by Dr. Janet Elder, however, some 80% of cases reported upon have been so related to asbestos victims from Wittenoom, i.e. blue asbestos. The malignancy or tumour is inoperable and the prognosis of a victim is three to six years at the most. It is Dr. Elder's evidence, indeed the evidence of all three specialists, Drs. Musk and Elphick, that the plaintiff "99%" contracted the disease in the course of her employment with the defendant. She is, of course, entitled to compensation under the provisions of the Workers Compensation Act but the question is as to whether by virtue of the defendant's negligence, she is entitled to damages at common law.

By her pleadings the plaintiff contends that the defendant's negligence in subjecting her to unnecessary risks by failing to provide her with safe working conditions may be particularised as follows:

(a) The defendant failed to warn the plaintiff that Blue Asbestos Dust could be harmful to her health.

(b) The defendant failed to take any or adequate steps to protect the plaintiff from exposure to Blue Asbestos Dust when it well knew or should have known that Blue Asbestos Dust was dangerous to the plaintiff's health.

(c) The defendant failed to take any or adequate steps to inform itself of the dangers of Blue Asbestos Dust and the relationship between asbestos dust, cancer and other respiratory diseases.

(d) The defendant failed to provide the plaintiff with properly constructed working premises and failed to provide any dust proofing air filtration or any other protection from dust whatsoever.

(e) The defendant failed to provide the plaintiff with any or adequate respirators or to ensure that proper dust filters were available for any such respirators when required, and further, failed to encourage or enforce the wearing of any such respirators.

(f) The defendant failed to have in use in the said treatment plant an adequate or effective dust extraction system which could properly control the emission of Asbestos dust.

(g) The defendant failed to adequately maintain the said treatment plant and dust extraction system so as to control or minimise the emission of asbestos dust.

(h) The defendant overloaded the said treatment plant machinery whereby the Asbestos Dust problem was increased.

(i) The defendant located the mine site office in close proximity to the mill.

(j) The design and construction of the mine site office was such as to permit the ready influx of asbestos dust and fibres from the mill.

The defendant denies that it failed to take adequate steps to protect the plaintiff from exposure to blue asbestos dust notwithstanding the lack of knowledge which its officers had as to the distinction between asbestosis and silicosis let alone the former's carcinogenic association and the cause of Mesothelioma. Its short

argument is that it viewed its responsibility as an employer to reduce the dust incidence as much as possible from an engineering and health point of view for the comfort of its employees and that for the purpose it employed all known means of dust extraction within the mill. Indeed it is not suggested by the plaintiff that the defendant could have done anything more save site the office elsewhere and warn her. What is strongly argued on behalf of the plaintiff is that the defendant failed to appreciate the possible harmful effects of asbestosis, the carcinogenic aspects thereof and that a disease such as Mesothelioma was therefore within the risk of a worker's employment. Possessed of such knowledge the defendant was thus in a position to warn its employees before engaging their services. Furthermore, had it appreciated the possible harmful effects of dust fallout from the plant it would have situate the office building very much further away from the mill than 60-100 yards. The plaintiff, of course, concedes that the defendant's officers could not have known of the disease of Mesothelioma but on the other hand their failure to study recent medical literature available within Australia left them in the position of being unable to appreciate possible harmful effects of asbestosis or inhalation of asbestos fibre known and unknown. All of these arguments in the end boil down to that of foreseeability. It is relatively simple to be wise after the event - here, some 25 years later, and condemn that which is misadventure as negligence. Whilst Mesothelioma is known to be associated with asbestosis caused by crocidolite in many cases, there are the exceptions and the plaintiff's case is one of them. The opinion expressed by Dr. H. R. Elphick, a senior consultant physician widely experienced in chest medicine and in particular with the results of mining at Wittenoom, that "the proprietors of the mill and mine at Wittenoom could have had no knowledge that a person working in the office, with no direct exposure to asbestos, could develop a

condition 27 years later which is known to be a consequence of the minor exposure then involved" illustrates the problem.

It is increased by the evidence of thoracic specialist Dr. Janet Elder, who has made a detailed study of the medical effects of asbestos mining at Wittenoom since 1959, when she also visited the area. She has described Mesothelioma as a rare tumour. "No one knows exactly how the malignancy starts or when it starts. How it starts in particular." It was first attributed to asbestos dust in 1959-1960 though there were suggestions of it beforehand. Pathologist Wagner was investigating the tumour in 1960 but it was not until 1965 before its primary existence was accepted. Importantly, in Dr. Elder's opinion, there was no known relationship between asbestos and Mesothelioma in 1950-1953. She would not have thought it likely that the plaintiff would contract asbestosis whilst working in the defendant's office for the period involved. Lung cancer was only known to occur amongst asbestos workers who had asbestosis. The plaintiff does not suffer from asbestosis.

Arthur William Musk is another highly qualified physician in respiratory medicine at Sir Charles Gairdner Hospital. He obtained a Master's Degree in occupational medicine at Harvard University in 1977. He has seen about 20 or 30 ex-Wittenoom workers, mainly at Gairdner Hospital. They have been suffering from asbestosis, lung cancer and Mesothelioma, also from a condition called benign asbestos pleurisy. He has seen some five or six cases of malignant Mesothelioma. One was not associated with Wittenoom. He agreed entirely with Dr. Janet Elder's evidence. His study of Mesothelioma attributes its origin to crocidolite - where the disease is associated with asbestosis. In his opinion, only fibres of the order of 2 microns in diameter are small enough to go beyond the large airways in the body in transit to the pleura. They have a length to diameter ratio of about 3:1, or about 5 microns in length. Such fibres are virtually invisible in the atmosphere to the naked eye.

Dr. Musk's study of the medical literature to which I have been referred in some detail by Mr. Olney, reveals a change in scientific approach from the pre-1950 case study of those involved in the industry to his statistical survey in terms of relative risks and epidemiological studies which subsequently came out in the 1950's. He was aware that fibres other than those of crocidolite are known to cause Mesothelioma. In all his detailed study, case histories and surveys, he had not come upon a case which indicated asbestosis or any other pulmonary disorder or a person who was employed in a similar position to the one in which the plaintiff was employed by the defendant. He agreed with Dr. Elder that Mesothelioma did not become accepted until after Dr. Wagner's article in 1960. I would add here that I do not propose to place any further construction upon the medical literature which has been made available to me in such volume than that given in evidence by the medical specialists. Undoubtedly there was a volume of medical literature directed towards the hazards of asbestos workers and some of that literature dealt with lung cancer associated with asbestosis. In no case, however, nor is it contended otherwise by the plaintiff, is there medical literature available prior to 1960 dealing with a malignancy of the pleura from which the plaintiff suffers let alone the causation through inhalation of blue asbestos fibre of minute size.

The defendant called Dr. Harry Maynard Rennie who has had a professional relationship with C.S.R. for 25 years or more and was a consulting physician at Prince Alfred Hospital holding the position as specialist thoracic physician during the late 1940's and early 1950's. In the period up to 1950, he saw coal miners suffering from occupational fibrosis as the result of inhalation of silica dust. In his opinion it was quite rare for asbestos to be viewed as the cause of occupational fibrosis. That was his experience. When he went to

Johannesburg in South Africa some years after 1953, he learned there of the occupational risk to asbestos workers.

Had the defendant's servants resorted to the legislation of the State of Western Australia up to 1950 relating to mining and milling of minerals it would have received no assistance from the provisions of the Mines Regulation Act, 1906-1946, and amendments and the regulations made thereunder. At no stage did the Mines Department (see Reg. 154) or for that matter the Department of Public Health serve notice upon the defendant and there is no evidence of any complaints with respect to dust incidence. Mesothelioma was not mentioned in the Workers Compensation Act until 1970. How, then, may it be said that the defendant's servants should have reasonably foreseen the possibility of the injury to the plaintiff. Mr. Olney puts his argument in this way.

In the first place the defendant's servants did not make any enquiry or receive advice as to the possible effects of asbestos dust generated in its mill at Wittenoom. Had it done so it would have discovered a wealth of medical knowledge identifying the more harmful effects of asbestosis as opposed to silicosis and the possibility of lung cancer. As it was, the company did not regard its employees as being at risk from those diseases. Therefore it took no steps to warn the plaintiff of any possible healt hazard arising from the inhaling of the dust and fibres in her office. Whilst the defendant's servants endeavoured to combat the incidence of dust in its milling operations, the hardness of the host rock and the difficulty of separating it from the mineral fibre militated against the defendant's efforts to entirely effect suppression. In fact, it would appear that minimal exposure to small amounts of fibre can give rise to Mesothelioma 25 to 30 years later.

Of the company's efforts to suppress dust, Mr. Olney points to the overseas practice of establishing large settling rooms in which are constructed cross baffles for the purpose of separating mineral fibre from dust b lown therein. The defendant's failure to construct such a settling room notwithstanding the difficulties of the existing terrain and the shortage of materials to be employed for that purpose at the relevant time,to say nothing of no economic gain arising therefrom as was the overseas experience,demonstrated the negligence of the defendant and its lack of concern for its employees. I have some difficulty in understanding this latter argument when in fact, as I have previously said, all that was needed was a minimal - the precise quantity is not known - inhalation of almost invisible mineral fibre. But that is sufficient to sustain Mr. Olney's main argument. That is, that there was ample medical literature available to the defendant's officers had they enquired to demonstrate the hazardous nature of asbestos dust, even in small quantities, and as to the possibility that the inhalation thereof could give rise to lung cancer. Mesothelioma is a form of lung cancer. The medical literature which did exist and to which I have previously referred indicated a danger sign for the company to take grave care and to warn its employees as to the possible effects of work in areas where mineral fibre might be inhaled.

In other words, possessed of the medical knowledge available, had the defendant's officers been asked as to whether it was safe for its employees to work in areas contaminated by dust such officers would have been obliged to admit that they did not know and thus were liable in negligence for not being in a position to warn. In the words of Sachs L.J. and Lawton L.J. in Wright v. Dunlop Rubber Company Limited, 13 K.I.R. 255, at p. 271, "Had they given thought to the risk to Dunlop's workers, as manifestly they should have done, some action by them was called for. The least they should have done was to have

warned Dunlops of the suspicions which they had". The plaintiff's argument is based upon the proposition that whilst the disease Mesothelioma was unknown, the possibility of contracting cancer from exposure to asbestos was known, and should have placed the defendant's servants on guard. One progresses from that position to the conclusion that the defendant whilst not having the relevant knowledge ought to have known of the risks associated with the inhalation of asbestos dust - even to the extent of the danger posed to the plaintiff working in an office a short distance away from those exposed to dust in the defendant's mill.

Before turning to the defendant's substantive argument, I should shortly dispose of its plea under the Statute of Limitations. It is quite clear that the disease from which the plaintiff is sadly suffering was not identified until February of last year. It is only then that the plaintiff first knew of the existence of the disease. I uphold Mr. Olney's submission that the plaintiff's cause of action arose at the time the plaintiff became aware of her condition. See Cartledge v. E. Jopling & Sons Ltd., (1963) A.C. 758. It follows that the plaintiff's claim is not statute-barred.

The defendant's arguments may be confined to the test of foreseeability and in addition its denial that it failed to take adequate steps to prevent its employees from inhaling dust. Whilst the defendant's servants' knowledge of asbestosis was limited and more to be equated with the disease silicosis, the most that any detailed study of asbestosis in 1950 would have revealed was that there was some association between that disease and lung cancer - see the evidence of Dr. Elder. How, then, could it guard against an unknown disease apparently more associated with the mining of blue asbestos fibre than that of white, and particularly so where an office worker was involved? Again, the test of what was reasonable must be against the standards of 1950 and not against the modern trend towards strict

liability. The identification of cause is not sufficient to impose liability and an employer is not an insurer of his employee's condition save in areas of worker's compensation.

The studies carried out by Merryweather and Price were concerned with the use of already mined and milled white asbestos fibre in textile factories in the United Kingdom and notwithstanding the alarming figures therein revealed, the United Kingdom Parliament had not seen fit to close up such factories but merely to bring down regulations relating to suppression of dust. Although some relevant medical literature existed in Western Australia at the relevant time, no Government department had legislated along similar lines. Notwithstanding Dr. Hensell's memorandum to the Under Secretary for Mines of 26th October 1951, and the concern therein revealed for the health of the workers at Wittenoom, there is no evidence of the department's intervention as the memorandum suggests. There is certainly no evidence of the defendant's servants' knowledge of the Commissioner's opinion.

Blakiston's New Gould Medical Dictionary defines silicosis as "diffuse fibrosis of the lungs caused by the inhalation through a period of years, of dust having a significant content of silicon dioxide particles less than 10 microns in diameter. It is a form of pneumoconiosis". Asbestosis is defined by the same authority as a form of pneumoconiosis marked by fibrosis of the lungs from prolonged inhalation of dust laden with asbestos. Pneumoconiosis is defined as chronic inflamation of the lungs caused by the inhalation of dust. All the recognised forms of pneumoconiosis are due to dust. The predominant feature is fibrosis which varies in type with the etiologic dust. Silicosis and asbestosis are the main forms. Mesothelioma is defined as a primary tumour, either benign or malignant, of the cells formed in the lining of the peritoneum or pleura - the latter being the serous membrane enveloping the lung and

lining the internal surface of the thoracic cavity. We have already learnt that one of the causes thereof is the inhalation of minute fibres of crocidolite - see the evidence of Dr. Musk - which was mined for the first time in Australia at Wittenoom and is not mined anywhere else in the world apart from in South Africa and Bolivia. It was the South African investigations by Dr. Wagner which brought to light the association of crocidolite fibres with Mesothelioma - in the early 1960's.

"Negligence is conduct falling below the standard established for the protection of others against unreasonable risk of harm. This standard of conduct is ordinarily measured by what the reasonable man of ordinary prudence would do in the circumstances". See Fleming: The Law of Torts, 5th Ed., at p. 106. To measure that standard knowledge of the danger to be guarded against must exist. It is common ground that knowledge of the disease Mesothelioma did not exist at the time the plaintiff was in the defendant's employ and certainly not its cause. Mr. Olney has endeavoured to surmount that problem by equating the existence of knowledge of the hazards of asbestos mining generally but I am unable to accept that proposition, particularly so where the plaintiff was employed in the defendant's office some distance from its mill. In my opinion, what happened to the plaintiff could not have been reasonably foreseen by the defendant's officers during the period 1950-1953 and it would be unreasonable to contend to the contrary. "The liability for negligence, whether you style it such or treat it as in other systems as a species of 'culpa', is no doubt based upon the general public sentiment of moral wrong-doing for which the offender must pay". See Lord Atkin in Donoghue v. Stevenson, (1932) A.C. 562, at p. 580. Whilst the defendant's servants may not have known all that they should have known about asbestosis when establishing the defendant's mill, in fact their knowledge of the hazards to health occasioned by excessive dust and their determination to suppress its incidence in my view of the evidence absolves the

defendant from liability. I do not attribute 'culpa' to such responsible officers.

I am indebted to Mr. Olney for his reference to the Wright v. Dunlop Rubber case, but a reading thereof occasions me to distinguish it from the facts in this case. There the Court of Appeal found that the defendant I.C.I. did know of the carcinogenic qualities of Nonox S. Furthermore, to warn a worker of a possible danger surely does not extinguish an employer's liability. The plaintiff does not suggest that the defendant's mine and plant should have been closed.

In my opinion it has not been shown by the plaintiff that the defendant could have done anything more under the heading of controlling of dust during the relevant period. This is particularly so when one has regard to the evidence of Dr. Musk as to the part played by the crocidolite near invisible fibres in the causation of Mesothelioma. The plaintiff has not established the foreseeability of the risk which she ran whilst working for the defendant. None of the particulars of negligence have been made out. I do not condemn as negligence that which in my opinion was sad misadventure. The plaintiff's claim fails.