[2021] JMCA Civ 7

JAMAICA

IN THE COURT OF APPEAL

SUPREME COURT CIVIL APPEAL NO 24/2017

BEFORE: THE HON MISS JUSTICE PHILLIPS JA
THE HON MRS JUSTICE FOSTER-PUSEY JA
THE HON MISS JUSTICE SIMMONS JA (AG)

BETWEEN	**JAMAICA PRE-MIX CONCRETE LIMITED**	**APPELLANT**
AND	**SHAWN HENNIE (Administrator in the estate of Brenton Hennie, deceased)**	**RESPONDENT**

Patrick Foster QC and Mrs Symone Mayhew instructed by Symone Mayhew for the appellant

Ms Kashina Moore instructed by Nigel Jones and Company for the respondent

20, 21, 22, January, 3 February 2020 and 29 January 2021

PHILLIPS JA

[1] I have read in draft the comprehensive and thorough judgment of my sister Foster-Pusey JA and I agree entirely with her reasoning and conclusion. I wish, however, to add a few words of my own with regard to certain aspects of the issue of damages, which was also dealt with by my learned sister in her analysis and decision.

[2] G Fraser J (Ag), the learned judge in the court below, had relied on **Henegham (Son and Administrator in the Estate of James Leo Henegham, (Respondent) v Manchester Dry Docks Ltd and others** [2014] EWCA 4190 and the sum of £175,000.00 which had been identified, by consent, as an appropriate award for 100% liability arising out of the claim. As will be explained in greater detail in Foster-Pusey JA's judgment, a claim had been pursued on behalf of the deceased, who had contracted lung cancer after exposure to asbestos. It turned out, however, that since the defendants before the court were only responsible for 35.2% of the exposure, applying the 'Fairchild' exception, they were required to pay £61,600.00. While it is therefore understandable that the judge would have felt it appropriate to rely on an award representing 100% liability, I agree with my learned sister that the fact that the composition of the consent award is unknown, made it inappropriate for the award to be relied on in the instant case. Furthermore, it does appear that the figure of £175,000.00 included elements apart from compensation for personal injury, as it far exceeded what would even have been contemplated by the Judicial College Guidelines for the Assessment of Personal Injury 15th edition, of the courts in England, which provides for an upper limit of £71,500.00 as compensation for lung cancer.

[3] This brings me to the question as to whether it would be appropriate for us to utilize these guidelines in the assessment of damages in our jurisdiction. Again, I am in agreement with my sister that, in light of the stark difference in social, economic and industrial conditions between England and Jamaica, this would not be an appropriate practice. As difficult as it may be in rare and peculiar cases, judges in our courts have

to strive to arrive at our best estimate of appropriate levels of compensation for personal injuries in Jamaica. Where we seek assistance from awards in other jurisdictions, it is best that we search for and rely on awards made in countries which are similar to us in social, economic and industrial conditions. Such an approach would avoid the difficulty of determining what level of discount would be required to be applied to an award made in a country with dissimilar conditions, in order for it to reflect our reality.

[4] No doubt, as their Lordships opined in the Judicial Committee of the Privy Council case of **Scott v Attorney General and another** [2017] UKPC 15, we would also require expert evidence to arrive at the appropriate level of discount. In that case, an appeal from the Court of Appeal in the Bahamas, attorneys for the appellant had argued that the courts in the Bahamas had developed a principle that guideline figures for personal injuries, suggested by the Judicial Studies Board of England, would be routinely increased to reflect different levels of the cost of living between England and the Bahamas. Their Lordships concluded that there was no such principle for three reasons, one of which was that (see paragraph 16 of the judgment):

> "…Finally, it would be wrong to apply an unchanging uplift without evidence of an actual, as opposed to a presumed, difference in the cost of living between England and the Bahamas."

[5] Their Lordships examined cases on which the appellant had relied to advance the principle, and remarked that in none of the cases was evidence adduced as to what the

"mooted" difference in the cost of living between the two countries actually was or the basis on which it had been calculated. It was, however, suggested to their Lordships that this was a matter in which judicial notice could be taken. Their Lordships did not accept this proposition and stated at paragraph 42 of the judgment:

> "It is plainly impossible to take judicial notice of the difference in cost of living between the Bahamas and England. Where that difference was accepted in cases such as *Acari* and *Matuszowicz*, it must have been on the basis of agreement or assumption. Absent agreement, however, this is not something which can be assumed. **For the reasons given earlier, the Board considers that a mechanistic adherence to JSB guidelines with an automatic increase cannot be the proper way in which to assess general damages in the Bahamas. If such an approach was appropriate, it could only be contemplated on the basis of evidence to establish the fact that there was a difference in the cost of living between the two countries, rather than an assumption that this was so. It should be made clear, however, that the Board does not commend such an approach.** As already observed, JSB guidelines can provide an insight into the proper awards of compensation for pain and suffering and loss of amenity in the Bahamas but only in so far as they meet the standards and expectations of Bahamians. An automatous method of assessing general damages by seeking out the norm in England and adding an automatic increase cannot fulfil those requirements." (Emphasis added)

[6] I am in agreement with these sentiments, and do not think that we should pursue an automatous method of assessing general damages by seeking out the norm of damages in countries whose cost of living and social economic and industrial conditions may be dissimilar from those in Jamaica, and applying a discount or an uplift.

[7] It would certainly be a very helpful exercise if we were to produce, in Jamaica, a similar publication to the English guidelines. I hope that such an undertaking will be pursued as it would be of immense help to both practitioners and the Bench.

[8] I therefore agree with the orders proposed by my learned sister.

FOSTER-PUSEY JA

Background

[9] The appellant is a company that manufactures and supplies ready-mixed concrete in Jamaica. The concrete is comprised of cement and various ingredients such as retarders and plasticizers.

[10] Mr Brenton Hennie ("Mr Hennie"), now deceased, worked with the appellant, firstly as a labourer in a non-staff position, and then as a staff member in the capacity of a pump attendant over the period 1997-2012. In 2012 Mr Hennie was diagnosed with bronchoalveolar carcinoma (lung cancer). Mr Hennie sued the appellant on the basis that, inter alia, the appellant carried out its operations in a negligent manner by causing him to be excessively exposed to cement dust, as well as fumes from the concrete mixture, which contained hazardous substances. He claimed that this is what led to his developing lung cancer.

[11] The claim was heard on 24 February, 1, 2 and 4 March 2016. On 12 September 2016, Georgiana Fraser J (Ag) (as she was then) ("the judge"), found the appellant liable and awarded damages.

[12] Unknown to the judge and counsel, the appellant had passed away a few days before the judgment was handed down. Since certain heads of damages were no longer relevant, such as cost of future domestic assistance and cost of future medical care, on 27 January 2017, after hearing submissions on 19 September 2016 and 26 January 2017, the judge varied the award of damages to omit them. In addition, the award for pain and suffering and loss of amenities was reduced. The orders made were:

> "1. General damages - $24,000,000 with interest at a rate of 3% per annum from 6th January 2013 until 27th January 2017.
>
> 2. Special damages - $80,000 with interest at a rate of 3% per annum from 30th January 2012 until 27th January 2017.
>
> 3. Costs to be agreed or taxed.
>
> 4. Pursuant to part 42.8 of CPR this Judgement [sic] shall not take effect until 6th March 2017.
>
> 5. There be a stay of execution of three (3) weeks following the 6th March 2017.
>
> 6. In relation to applications made on to [sic] 19th Sept 2016 and 26 & 27 of January 2017, no order made as to costs."

[13] The respondent, Mr Shawn Hennie, administrator of Brenton Hennie's estate, by order of the court, had previously been substituted as claimant and has continued proceedings on behalf of the estate.

[14] By notice of appeal filed 24 March 2017, the appellant has challenged the judge's decision and award of damages. At first instance, the appellant had accepted that, as Mr Hennie's employer, it owed him a duty of care. It had however opposed liability on

the basis that it had not breached its duty of care, causation had not been established and the illness which Mr Hennie suffered was not reasonably foreseeable.

[15] As filed, the notice of appeal included a challenge by the appellant to the judge's finding that it had breached its duty of care. However, this was not pursued at the hearing of the appeal. Instead, the appeal centred on the questions as to whether the judge erred in accepting the evidence of Dr Margaret Dingle Spence, ("Dr Dingle Spence"), one of the two medical experts who testified at the trial, misinterpreted the studies on which she relied, erred on the issue of causation and remoteness of damage, and made an erroneous assessment in her award of damages for pain and suffering and loss of amenities. The appellant's position was, therefore, that while it owed Mr Hennie a duty of care, and it had acted in breach of that duty, this breach of duty did not cause Mr Hennie to contract lung cancer. In addition, it was not foreseeable that its breach of duty would have led to Mr Hennie contracting lung cancer.

Proceedings in the court below

The pleadings

[16] By way of a claim form and particulars of claim filed 12 October 2012, Mr Hennie instituted proceedings against the appellant. The claim form and particulars of claim were further amended on 11 November 2014. By these pleadings, Mr Hennie sought damages for breach of statutory duty, breach of contract and negligence. Mr Hennie averred that, between on or about 24 January 2002 and 27 April 2012, he was in the lawful execution of his duties as a pump attendant under a contract of employment with the appellant, when, as a consequence of the negligent manner in which the

appellant executed its operation in the course of its trade, he was continuously exposed to concrete mixture which contained substances hazardous to his health resulting in him sustaining serious personal injury, loss and damage.

[17] There was an important difference between the October 2012 particulars of claim and the amended particulars of claim filed in November 2014. In the latter, Mr Hennie pleaded that, before becoming a member of the appellant's staff, he had a contract of service with the appellant "from in or about 1999 to on or about January 23, 2002". In addition, during that period, he "mostly worked" at the batching plant on the appellant's premises, and was responsible for cleaning cement particles which fell on the floor. At paragraph 5 of the amended particulars of claim it was also specifically pleaded that:

> "The [appellant's] premises continuously had cement dust, which when it became dry presented a hazard to [Mr Hennie] (who was in direct [sic] with the said cement dust."

[18] In the further amended particulars of claim, Mr Hennie particularized the appellant's alleged breach of statutory duty, breach of contract and negligence in the following terms:

> "a. Failing to provide a safe place of work.
>
> b. Failing to provide the requisite warnings, notices and/or special instructions to [Mr Hennie] and his other employees about the dangers and/or hazards of inhalation of cement/concrete particulate, dust and/or substance so as to prevent [Mr Hennie] being injured.
>
> c. Failing to provide a competent and sufficient staff of workers.

d. Failing to modify, remedy and/or improve a system of work which was manifestly unsafe and likely at all material times to cause serious injury to [Mr Hennie].

e. Causing the said cement/concrete particulate, dust and/or substance to escape and come into contact with [Mr Hennie].

f. Failing to take reasonable care to prevent the escape of the said cement particles or cement dust or substance from the pipes in which it was being transported.

g. Failing to warn or take reasonable care to warn, [the appellant] [sic] of the escaping of the said cement particles or cement dust or substance from the pipes in which the said substance was being conveyed.

h. Failing to take reasonable care in all circumstances to carry out its operation in such a manner so as not to expose [Mr Hennie] to reasonably foreseeable risks.

i. Failing to provide [Mr Hennie] with safety equipment.

j. Failing to have regard and/or sufficient regard to the safety of [Mr Hennie].

k. Ordered [Mr Hennie] to sweep [the appellant's] premises for years, the said premises continuously contained cement dust which was harmful to [Mr Hennie's] health.

l. Ordered [Mr Hennie] to work at the batching plant which was an unsafe and unhealthy environment.

m. Failed in all the circumstances to discharge the common duty of care in breach of the Occupiers Liability Act.

n. Failed in all the circumstances to disclose [sic] their duty of care in breach of the Factories Act (Regulation).

o. Breached their contractual duty to [Mr Hennie] to provide a safe place of employment."

[19] In the amended defence filed on 22 December 2014, the appellant denied that Mr Hennie worked at the batching plant, and stated that he was a labourer initially assigned to the placing and finishing crew and was subsequently assigned to work as a pump attendant. As a member of the finishing crew, the appellant stated that Mr Hennie was responsible for placing finished wet concrete on job sites. In addition, as a pump attendant, he was responsible for holding a pump hose to pour wet concrete in formworks and foundation or in open ground slabs. Therefore, at all material times, Mr Hennie's duties required him to work offsite with wet concrete.

[20] The appellant also denied that Mr Hennie was responsible for sweeping or otherwise cleaning the floor at its premises, or to remove cement particles from the floor. Instead, his duties were carried out offsite at customers' premises as a member of the finishing crew or as a pump attendant, and that at all material times Mr Hennie was provided with and required to use protective gears including a hard hat, hard boots, dust mask and protective eyewear. Further, the appellant averred that the batching plant at all material times had a dust protective shield which effectively minimized any dust pollution, and to which batching plant Mr Hennie was never assigned.

The evidence

The respondent's case below

[21] Mr Hennie had worked with previous employers as a security guard and a messenger, at locations at which he states he was never exposed to dust.

[22] He started working with the appellant in or about 1999. At that time, he was not formally on staff. Between 1999 and 2002 his duties included working in the batching plant, a section where trucks would be loaded with cement. At times when the cement was pumped into the truck, some of it would spill onto the ground, and he was required to clean up the dust.

[23] Over this period, he was also required to sweep the appellant's premises on a daily basis. He came into direct contact with cement dust, which was scattered on the premises. This dust also came from the appellant's trucks, which, upon their return from the road, would be washed out, in the course of which sediments would be released on the ground. When dry, the sediments became dust which Mr Hennie had to sweep on a daily basis for three years.

[24] He stated that the appellant did not provide any protective gear.

[25] In or about January 2002, Mr Hennie became a part of the appellant's staff and was given duties as a pump attendant. These duties required him to hold the hose from a truck which pumped the concrete. Mr Hennie stated that, while he was carrying out his duties, concrete particles would go onto his clothes and into his nose. When the concrete became dry on his clothes it would create a lot of dust. He also used a shovel to spread concrete after it was poured. The fumes from the concrete negatively affected him. At times he was ordered to work in enclosed buildings where there was no ventilation for the escape of the fumes from the concrete.

[26] While working for the appellant, he was diagnosed with bronchoalveolar "carcianna" of the lung. He had never been a smoker and had no family history of lung cancer. In light of this diagnosis, the appellant, by letter dated 27 April 2012, terminated his services. The letter stated in part:

> "April 27, 2012
>
> Dear Mr. Hennie,
>
> Your medical condition has been reviewed by the management of the Company and was also the subject of a letter written to us by the National Workers Union. We also received several letters from Doctors Dingle Spence and Dianne Morris-Devereaux of the Hope Institute, in which they outlined their diagnosis of your condition and to which we have replied…
>
> The diagnosis of your doctors is that you are suffering from a type of lung cancer which renders you unfit and unable to continue working for us in the capacity for which you were employed, that is as a labourer on the concrete pumps.
>
> …We note that your incapacity is not expected to nor is your condition likely to improve. This is also the opinion of your doctors.
>
> Regretfully, the Company has no option but to terminate your contract of employment effective April 27, 2012 on the grounds of your incapacity and your inability to perform the job functions for which you were employed. Accordingly, you will be paid six weeks in lieu of notice of the termination of your employment.
>
> Whilst the condition which you have developed does not entitle you to a medical redundancy payment, our Company is willing to make you a lump sum ex gratia payment of One Hundred and Fifty Thousand Dollars ($150,000.00) payable immediately…"

[27] In cross-examination, Mr Hennie accepted that he had never been required to mix any of the chemicals used to make the ready mix concrete, as this was an automated process. He worked with the pump truck, which pumped the wet concrete from the mixer truck. Most of his work life with the appellant was spent on the road working with wet concrete mixture.

[28] Mr Hennie stated that when he had duties to sweep the yard, it was very dusty and that he came out "white". He would wear the 'flimsy dust masks' when he received them from the appellant, but for the majority of the time he used 'scrap' to tie his face. The appellant's stores rarely had dust masks. He insisted that cement dust was scattered throughout the appellant's premises.

[29] He stated that fumes came from the concrete as it was pumped. He was able to smell the wet concrete as it was getting warm or when it was in an enclosed area. Although this did not happen regularly, he helped to spread the wet concrete if the hose from the truck was malfunctioning. He stated that the dust mask did not help with the fumes, but agreed that it was only infrequently that he worked with wet concrete in enclosed buildings. Mr Hennie said that the wet concrete went 'all over' him and at times he even had to pick it from his nose. He disagreed that on the occasions when he did not wear a mask it was his choice not to do so.

[30] Mr Hennie called Ransford Foster, a mason, in support of his claim. Mr Foster stated that he was employed to the appellant for approximately 13 years and worked in the capacity of a mason for a portion of those years.

[31] While working at the premises, it was constantly dusty from cement. When the trucks which returned from the road were washed out, the sediments were poured out in the yard and, upon drying, became dust. He stated that at times when the trucks came in, it was difficult for the workers to see as a result of the dust which was in the air. Mr Foster said that he had seen Mr Hennie working at the batching plant, cleaning the area where the cement was poured. On several occasions, cement would spill and Mr Hennie was responsible for cleaning the area. He stated that the appellant did not provide protective gear on a regular basis to prevent the inhalation of cement dust. Mr Foster stated that on the occasions when he accompanied the trucks to deliver wet concrete, and acted in the capacity as a mason, with Mr Hennie as a pump attendant, they were both exposed to cement dust while carrying out their duties. In addition, wet concrete would get caught on their clothes, would dry, form into cement dust and get into their nostrils when they tried to brush it from their clothes.

[32] In cross-examination, Mr Foster agreed that he received dust masks sometimes, but not 'most times'.

The appellant's case below

[33] The appellant called Mr Andrew Smith, its production supervisor, to testify on its behalf. In light of the fact that the appellant is no longer challenging whether it had breached its duty of care to Mr Hennie, I will mainly highlight certain aspects of his testimony.

[34] In cross-examination, he testified that there was a stores department to which workers would go to receive safety gear. Workers would sign to acknowledge receipt of gear such as helmets, glasses, shoes, gloves and respirators, and would keep them until they are lost or destroyed. While the company had a policy that employees should wear protective gear, he could not tell if it was given to each employee or was provided to the court. He agreed that cement retarders and superplasticizers were added to the concrete mixture. He did not agree that fumes would emanate from the concrete mixture, and became strong when poured by workers in enclosed off-site areas. In fact, he said that he could not speak to whether fumes come from the concrete mixture.

[35] As far as he was aware, the appellant did not have a safety officer employed to ensure that employees complied with safety measures, procedures and practices. He agreed that the appellant did not have any signs on the premises warning employees of the hazards of cement dust, retarders and plasticizers. In his understanding, the purpose of the dust mask was for employees to place it over their nostrils for protection from dust, and unpleasant smells such as dirty water, dead animals and fumes. He had not kept abreast with whether there were any hazards associated with cement dust and substances in wet cement.

[36] In re-examination, Mr Smith stated that, while the appellant did not have a safety officer on staff, the production manager and supervisor carried out those responsibilities.

[37] Mr Noel Ricketts also testified on behalf of the appellant. He knew Mr Hennie as a hardworking and reliable employee.

[38] He denied that the batching plant was swept or required sweeping. While he had heard of the chemical silica, he didn't know the components of cement. When referred to the various data sheets on Conplast, an additive which the appellant used when making wet concrete, he disagreed with the suggestion that the appellant was irresponsible when it did not make enquiries in respect of one of the Conplast products which suggested, under a section entitled "Important Note", that users of the product satisfy themselves in respect of certain matters. He insisted that he had no problems with the product. He also denied that fumes came from concrete or that there was cement dust in the yard from time to time. He agreed that the appellant did not have any signs on the premises reminding workers to wear dust masks.

Admixtures and medical studies

[39] Admixtures and medical studies were important features in the trial. In light of the nature of the issues that arise for consideration, it is necessary to carefully review the evidence presented at the trial in respect of admixtures utilized by the appellant to make wet concrete. It is also important that the medical studies which were placed before the judge, be also highlighted.

The admixtures

[40] The appellant uses various retarding and water-reducing admixtures in its production of wet concrete. In the course of the hearing, information sheets were

admitted into evidence as a part of an agreed bundle in respect of the following admixtures: Conplast R (Exhibit 9), Conplast RP264 (Exhibit 10), Conplast SP430 (Exhibit 12), Conplast P211 (Exhibit 13) and Conplast SD110 (Exhibit 14).

[41] In so far as Conplast SP430 was concerned it was described as:

> "...a chloride free, super plasticizing admixture based on selected sulfonated naphthalene polymers…".

The Safety Data Sheet however indicated that none of the ingredients of the product was classified as hazardous. It was a similar indication on the Safety Data Sheets for Conplast RP264 and Conplast R.

[42] In contrast, the Safety Data Sheets for Conplast SP423 (Exhibit 11) and Conplast P211 indicated that they contained ingredients classified as hazardous, however these were not present in sufficient quantities to warrant classifying the product as hazardous.

[43] In so far as all of the admixtures are concerned, in their dosage instructions, they referred to "cementitious material, including PFA, GGBFS or **microsilica**".

The medical studies/articles

[44] Earlier on in this judgment, reference was made to oncologist Dr Dingle Spence, one of the two medical experts who testified at the trial. The other medical expert who testified at the trial was Dr Paul Scott. Dr Dingle Spence referred to and relied on a number of medical studies which were adduced into evidence as exhibits. These were:

(i) Risk of lung cancer among masons in Iceland, Rafnsson and others (accepted 8 October 1996) ("the 1996 Rafnsson study") - Exhibit 27;

(ii) Health Hazards of Cement Dust-Sultan A Meo (2004) ("the 2004 Meo article") - Exhibit 24

(iii) Mortality and cancer incidence among Lithuanian cement producing works - Smailyte (accepted 28 November 2003) ("the 2003 Smailyte article") - Exhibit 26, and

(iv) Cement dust exposure and acute lung function: A cross shift study written by Zeleke, Moen and Bratveit and published in 2010 ("the 2010 Zeleke article") - Exhibit 25.

[45] Dr Scott, in the course of his evidence, relied on one medical study entitled Exposure to cement dust at a Portland cement factory and the risk of cancer (accepted 15 April 1991) - Vestbo ("the 1991 Vestbo article"). It was adduced into evidence as Exhibit 30.

[46] The medical studies assumed a crucial component in the evidence at the trial, and so it is important that they are carefully reviewed.

The 1991 Vestbo article - Exhibit 30

[47] This article was the only study to which Dr Scott referred, and the appellant has placed heavy reliance on Dr Scott's evidence.

[48] The aim of the study was to:

> "examine mortality from all cancers, respiratory cancer, and stomach cancer in a cohort of 1404 middle-aged men examined in 1974 with reference to the risk of obstructive airways disease in men exposed to cement dust."

The writers indicated that, in the case of cement dust and cancer, 'scientifically satisfactory studies' published, have not been able to confirm an increased risk of lung cancer. In their own study, they did not find an increased risk of cancer among cement workers, when compared with a 'suitable referent population'. Instead, their study confirmed the effects of well-known risk factors for cancer in the lung-such as age, smoking and exposure to asbestos.

[49] Importantly, the writers, in referring to an article written by Rafnsson, entitled Mortality among masons in Iceland and published in 1986, stated:

> "An increased risk of lung cancer has only been reported in the Icelandic study on mortality among masons, their finding was based on nine deaths and smoking was only controlled for indirectly. In that study it is not self-evident why cement dust, and especially hexavalent chromium in cement dust, was regarded as the most probable carcinogenic agent. Possibly the assumption was based on the well-known carcinogenic effect of chromate in other industries. The concentration of chromate in cement is, however, very low and lower than that found in industries where an excess risk of concern has been shown. It thus seems unlikely that chromate in cement dust could be responsible for a measurable increased risk of cancer."

[50] The writers identified certain drawbacks in their own study, but concluded that they nevertheless considered their results significantly valid for conclusion in respect of the carcinogenic risk of exposure to cement. They stated:

> "…our study casts serious doubt on previous studies showing an excess risk of cancer, especially respiratory cancer, among cement workers."

The 1996 Rafnsson study - Exhibit 27

[51] The objective of this study, on which Dr Dingle Spence relied, was to estimate the risk of gastrointestinal cancer and lung cancer in a cohort of masons exposed to cement and hexavalent chromium. The cohort consisted of 1172 men who were licensed as masons (cement finishers) in Iceland. The men were exposed to an aerosol of wet concrete, particularly when spraying. According to the analyses of urinary chromium, the masons were exposed to hexavalent chromium. Results from a postal questionnaire showed that

> "…fewer masons had never smoked and more masons had stopped smoking than the controls from the general population."

[52] The writers concluded that the increased risk of lung cancer among the masons could be related to their work. The exposure information, although limited, supported the suggestion that hexavalent chromium in the cement "may be the causal link". They believed that information on the smoking habits of the cohort showed that there was an adequate control for that confounder.

[53] The main job of the masons was to finish and smooth the surfaces of concrete structures. The mixing of the concrete was done in a 'mixer fed' which was operated by an assistant. Mixing the concrete involved exposure to cement dust. Before applying the wet concrete, masons were sometimes exposed to dry concrete dust. Wet concrete was applied with a trowel or by spraying with a vacuum pump. The spraying produced a thick mist of wet concrete spray described as "an aerosol of wet concrete". Respirator masks were only used spasmodically.

[54] The writers opined that exposure to silica, as well as tobacco smoking, could be a confounding factor in the study. They referred to Rafnsson's earlier article Mortality among masons in Iceland, published in 1986, as well as Vestbo's article published in 1991.

The 2004 Meo article - Exhibit 24

[55] This was another article on which Dr Dingle Spence relied. Meo noted that silicon oxide was one of the ingredients of Portland cement. He further noted that the cement mill workers were exposed to dust at various manufacturing and production processes such as the quarrying and handling of raw materials during grinding the clinker, blending, packing and shipping of the finished products. Cement particles were 'respirable in size' such as to make Portland cement a potential cause of occupational lung disease, with the tracheobronchial respiratory zone being the primary target of cement deposition. Meo indicated that the main route of entry of cement dust particles in the body is the respiratory tract and/or the gastrointestinal tract by inhalation or swallowing.

[56] In examining the health effects of high concentration and/or prolonged inhalation of cement dust in the cement industry, Meo stated:

> "The most frequently reported clinical features in cement mill workers are chronic cough and phlegm production, impairment of lung function, chest tightness…and carcinoma of lung, stomach and colon."

He concluded:

> "On the basis of the above literature described, it has been demonstrated that cement dust causes chronic obstructive lung disease, restrictive lung disease, lung function impairment, pneumoconiosis and carcinoma of larynx, lungs, stomach and colon."

[57] His recommendations as to preventive measures included well-ventilated work areas and that workers wear appropriate apparel, mask and safety goggles.

[58] The date when the article was published is not reflected on it, however, in the references included in Dr Dingle Spence's medical report, it is said to have been published in 2004.

[59] Meo also referred to the 1991 Vestbo article as well as the 1996 Rafnsson study.

The 2003 Smailyte article - Exhibit 26

[60] Dr Dingle Spence included this article in the index to her medical report of 21 February 2016 (Exhibit 23). The aim of the study was to investigate mortality and cancer incidence of cement producing workers. A total of 2498 cement workers, who had been employed at Portland cement producing departments for at least one year from 1956 to 2000, were followed up from 1 January 1978 to 31 December 2000.

[61] The 1991 Vestbo article is included among the articles to which reference was made.

[62] It is important to note that the writers had acknowledged that the research on the issue was not definitive. They stated:

> "A small study of masons handling cement showed an increased risk of lung cancer. The exposure information in the latter study was limited, and the authors suggested hexavalent chromium in the cement as a possible causal link. No cohort study has found any excess of lung cancer among cement manufacturers. However, a study among concrete workers showed an increased lung cancer risk in line with two census-based studies. The authors concluded, however, that the risk could also be explained by smoking.
>
> **These intriguing findings create a need for more cohort studies among workers exposed to cement, and the aim of the present study was to investigate mortality and cancer incidence in a cohort of cement producing workers**…in the Lithuanian cement factory. Our main focus was towards the relation between exposure to cement dust and gastrointestinal and lung cancers." (Emphasis supplied)

[63] On the conclusion of their study the writers stated:

> "This study supported the hypothesis that exposure to cement dust may increase the lung and bladder cancer risk."

The 2010 Zeleke article - Exhibit 25

[64] This was the other medical study on which Dr Dingle Spence relied. The writers conducted this study to investigate the association between cement "total" dust exposure and acute respiratory symptoms and respiratory function among cement factory workers. The study included workers from the crusher and packing sections.

Dust exposure was found to be highest during cleaning tasks. None of the exposed workers was observed using a 'proper personal respiratory mask', though some used a cloth to cover their mouths and noses. In concluding their study, the writers stated:

> "…total cement dust exposure was related to acute respiratory symptoms and acute ventilator effects. Implementing measures to control dust and providing personal respiratory protective equipment for the production workers are highly recommended."

The highest prevalence of respiratory symptoms for highly exposed workers was stuffy nose, shortness of breath and sneezing.

[65] Having highlighted the admixtures and the medical studies, it is now crucial that the expert medical evidence be closely examined.

The expert medical evidence

Dr Paul Scott

The medical report dated 21 November 2013 - Exhibit 6

[66] Dr Scott, a consultant physician and pulmonologist at the University Hospital of the West Indies, and a lecturer in the Department of Medicine at the University of the West Indies ("UWI"), examined Mr Hennie after he had been diagnosed with lung cancer. He noted that cement dust and wet cement, in general, can be an irritant for the lungs. These were important matters which arose for the consideration of the judge in light of questions of causation and remoteness of damage. Dr Scott stated that despite this, epidemiological data

> "…have to date not demonstrated that workers in the cement industry have a significantly increased incidence of lung cancer except in situations in the past when cement would sometimes be mixed with asbestos, a known cancer forming compound."

[67] He addressed the question of cement retarders in the following way:

> "Cement retarders are considered to be cancer-causing in animals and are also felt to be potentially cancer-causing in humans but there is no strong conclusive evidence. Other compounds from the family of compounds are in general considered to be potentially cancer forming and exposure should be limited but clear evidence of a significant increase in cancers in persons in the industry is not available."

[68] Importantly he concluded:

> "Mr. Hennie has lung cancer in the absence of a significant smoking history. His work history at Jamaica Premix would have caused exposure to cement dust which is not considered to be a cancer forming compound. Other exposures within the work environment related to cement could be considered for their potential to cause cancer and in this particular case he reported exposure to 'cement retarders'. While the retarders are from a family of compounds that could be potentially cancer forming there is no clear data demonstrating epidemiologically that workers exposed to the retarders have an increased risk of cancers but many industrial occupational authorities including some in the United States have it listed as potentially cancer forming. While cigarette smoke remains the biggest contributor to lung cancer in the general population it is well recognized that this cancer can also occur in non-smokers. In the latter group, a specific cause is often difficult to identify."

Oral evidence

[69] Prior to being cross-examined Dr Scott explained that a pulmonologist specializes in dealing with and diagnosing disorders relating to "lungs upper and lower airways including carcinoma of the lung".

[70] In the course of cross-examination, Dr Scott testified that, although he teaches in the Department of Medicine at UWI, and his lectures include the topic of lung cancer, he is not usually involved in the treatment of cancer once it has been diagnosed. He had made presentations at the UWI and at international conferences on lung cancer, however, his publications did not include studies relating specifically to cancer. He agreed that oncology is a branch of medicine that deals with the prevention, cause, diagnosis and treatment of cancer. While an oncologist specialized in all cancer, a pulmonologist specialized in lung conditions including cancer. Dr Scott agreed that, in a general sense, an oncologist was better able to say what caused cancer as against a pulmonologist. He reiterated that, while studies exist which conclude that cement dust could cause cancer, there was no conclusive evidence that exposure to cement dust caused an increased risk of lung cancer. He agreed that a large study group better allowed for a confounding variable. The medical expert highlighted that cement is not a uniform compound, and so when it was studied in previous years, the cement at the time could have included asbestos. A previous study had also included reference to hexavalent chromium, and the levels of that chemical in cement dust has changed in some countries because of the stipulations in their regulations.

[71] He stated that he had looked a number of studies done in more developed countries such as Denmark, Sweden and South Korea in order to see whether there was 'clear cut definite evidence that cement dust causes lung cancer', however, these numerous studies indicated that 'there was no co-relative to lung cancer'. He did not refer to the articles or studies in his report. He agreed that it would have been prudent to have included a reference to these studies in his medical report.

[72] Dr Scott testified that he was involved with two or three cancer patients on a weekly basis, perhaps ten monthly.

[73] In re-examination, Dr Scott stated that factors which may be important to the reliability of a study include its size, the controls used, the background data available on the study group, persons used in the control and their background data, whether the study took into account confounding variables and adjusted or controlled these variables.

[74] It is important to note that the appellant had urged the trial judge to prefer Dr Scott's evidence over that of Dr Dingle Spence, on whose evidence Mr Hennie principally relied.

Dr Margaret Dingle Spence

[75] Dr Dingle Spence is a consultant in Clinical Oncology and Palliative Medicine, employed by the South East Regional Health Authority, with duties at The Hope Institute.

[76] In a medical report dated 13 April 2012, adduced into evidence as Exhibit 3 as a part of an agreed bundle, and addressed to the appellant's human resources manager, Dr Dingle Spence confirmed that Mr Hennie had been diagnosed with a bronchoalveolar carcinoma of the lung. The following statement that Dr Dingle Spence made in the report is important in the context of causation and remoteness of damage issues which have arisen:

> "Risk factors for developing this type of cancer include smoking and working for long periods in an environment where the person is exposed to inhalation of fine particulate matter such as cement dust. Mr. Hennie has never been a smoker but has had many years of exposure to dust because of his occupation…Note should be taken that his disease may well have arisen due to prolonged occupational exposure to dust…"

[77] On 21 February 2016, in a report adduced into evidence as Exhibit 23, Dr Dingle Spence responded to questions which had been posed to her. The second question is particularly relevant: Can cement retarder, super plasticiser and silica cause bronchoalveolar carcinoma of the lung? Her response was as follows:

> "Adenocarcinoma of the lung is the most common cancer seen in non-smokers. Bronchoalveolar cancer is a type of adenocarcinoma.
>
> Superplasticizers are usually derived from sulfonated naphthalene condensate or sulfonated melamine formaldehyde.
>
> Naphtelene [sic] is regarded as a carcinogen. Under California's Proposition 65, naphthalene is listed as 'known to the State to cause cancer'.

> The International Agency for Research on Cancer (IARC) classifies naphthalene as possibly carcinogenic to humans and animals (Group 2B)….
>
> With reference to cement retarders-The State of California's Proposition 65 states "PROPOSITION 65 WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm."
>
> Portland cement consists essentially of compounds of **lime** (calcium oxide…) mixed with **silica** (silicon dioxide…) and alumina…
>
> Silica is known to be a major cause of restrictive lung disease. It is also recognised to be carcinogenic. Many studies have shown strong links between occupational exposure to cement dust and developing lung cancer.
>
> In summary, it is my opinion that long-term exposure to cement and cement dust, that contain chemicals such as naphthalene, melamine, silica and cement retarders which are all independently known to be carcinogenic can all cause adenocarcinoma of the lung." (Emphasis as in the original)

[78] Dr Dingle Spence referred to various material including articles touching on naphthalene, silicosis and cancer incidence in cement producing workers. The latter included the 2003 Smailyte article, the 2004 Meo article and the 2010 Zeleke article.

[79] Mr Hennie's attorney asked her additional questions before she underwent cross-examination. Dr Dingle Spence testified that, as an oncologist, she has a duty to look after and treat persons who are diagnosed with cancer. Oncology is a rigorous training which involves understanding the biology of cancer, how it begins and develops in the body, its causes, how to make a diagnosis and treat the patient. Dr Dingle Spence testified that she was trained in medical statistics, which consists of the assessment of

studies that look at the causes and treatment of cancer. She stated that she kept abreast of medical developments relating to cancer. While she does not diagnose patients, which is done by a surgeon, in her capacity as an oncologist she sees over 700 cancer patients annually.

[80] Dr Dingle Spence testified that she had reviewed articles and reports in the course of conducting extensive research looking at the occupational role of cement dust to construction and factory workers. There were many ways that cement dust could be 'incorporated', including by swallowing and inhalation. The gastrointestinal tract then absorbed it and it would go into the bloodstream. Particles of the dust and chemicals that make up the dust go into the body system such as the lungs and cause 'chronic irritant'. She further stated, at pages 206-207 of the record of appeal,

> "Cells become abnormal and divide abnormality[sic]-cells usually die when they become abnormal but when there is cancer and damage to cell DNA cells don't die but continue to multiply.
>
> Bronchi Alveoli lung cancer is a subset of a type called Adenocarcinoma: In my experience, this is somewhat different from cancer seen in a smoker. It is a number of tiny nodules scattered. This is most commonly seen in non-smoker[sic] and persons exposed to occupational dust."

[81] Dr Dingle Spence underwent intense cross-examination by counsel for the appellant. She acknowledged that as a palliative specialist she aimed to improve the quality of life of patients diagnosed with cancer of different types. On the other hand, a pulmonologist was a medical specialist in the treatment of lung diseases 'but not lung cancer'. When Mr Hennie came to her, he told her that he worked in a cement plant,

but she did not do any verification of his work. She took his history concerning his level of exposure to cement dust, but had no way of measuring it; she could only state that he was exposed to cement dust. She agreed that she would have needed to record the length of time he had worked in cement dust. She stated:

"I did not go into whether he packed, crushed etc. cement."

[82] Dr Dingle Spence agreed that the medical report that she prepared made no mention of for how long Mr Hennie had been working at the appellant's premises and there was no information as to whether he had been exposed to secondary smoking. She stated that she does not necessarily write down all the information that she receives. Her conclusion that Mr Hennie's lung cancer was caused by cement dust was based on the fact that he had told her that he worked in a cement factory, as well as her own experiences of lung cancer. Her experience was informed largely on her review of medical journals, articles, conferences and patients she had treated.

[83] When shown Exhibit 25, the 2010 Zeleke article, Dr Dingle Spence agreed that while the article confirmed a higher risk of respiratory illnesses for cement workers in the milling, crushing and packing sections of cement factories, it did not conclude that they had a higher risk of developing carcinoma of the lung.

[84] The next study to which Dr Dingle Spence's attention was drawn was Exhibit 24, the 2004 Meo article. She agreed that the study looked at cement mill workers.

[85] When referred to Exhibit 27, the 1996 Rafnsson article, Dr Dingle Spence agreed that it appeared to be a 'retrospective review'. She agreed that the writers of Exhibit 30,

the 1991 Vestbo article, cast doubt on the Icelandic study because of the suggestion that hexavalent in the cement could have been the causal link to lung cancer. Here an explanation would be useful since the Rafnsson 1996 article is later in time. The writers of the 1991 Vestbo article had in fact referred to a 1986 article written by Rafnsson and Johannesdottir entitled Mortality among masons in Iceland.

[86] When Exhibit 26, the 2003 Smailyte article, was raised with Dr Dingle Spence, she agreed that it concerned a study of workers in cement producing factories with high exposure to cement dust. Furthermore, all but one of the articles on which she had relied referred to the risk of lung cancer to persons working in cement factories or cement plants with high exposure levels. She admitted that other writers had called the Icelandic studies into question.

[87] The following exchange in the cross-examination, at pages 209-210 of the record of appeal, is important:

> "Q. If you were to discover that Hennie did not work in a cement plant would it change your conclusion based on studies we looked at, that his lung cancer was caused by exposure to cement dust?
>
> A. Ninety percent (90%) of lung cancer is deemed tobacco-related. Ten percent (10%) is considered to be caused by occupational hazard-patients may have no smoking or second-hand smoking history. He (Hennie) was exposed to cement dust throughout his job. I would still conclude that his carcinoma was caused by cement dust.
>
> Q. Isn't it true there are persons who have never smoked, worked in a cement factory or dusty environment that are diagnosed with lung cancer?

A. It is possible but that would have to be a low percentage; we never say never.

Q. Hennie worked at a Ready mix cement plant-worked most of his time with wet concrete, would you say it is different from cement dust?

A. I agree, however wet concrete dries. None of the studies that I relied upon in my first report refers to wet concrete. There are references to other studies.

Q. Would you agree that when cement is wet there is no dust?

A. Yes I agree.

Q. Having regard to Hennie working as pump attendant with wet concrete between 1999-2010 for 10 of these years, does this history change your conclusion that his lung cancer was caused by cement dust?

A. My conclusion remains the same because wet concrete dries and becomes dust. My conclusion is based on two things, dust and presence of chemicals in cement causing carcinoma.

Q Have you made any enquiries as to amount of dust that would have arisen from wet concrete drying on his clothing?

A. Apart from Mr. Hennie and coworkers no I have not."

[88] Dr Dingle Spence stated that while she had referred to cement retardants which are represented in cement, she was not an expert in the chemicals in cement and so relied on the product labelling as to whether a product is 'dangerous for cancer'.

[89] She agreed that she did not know whether sulphonate naphthalene could cause cancer, but stated that the basic substances were cancerous. She had not done any

research on the actual chemicals used by the appellant in its wet cement, but assumed that the company used Portland cement of international standard.

[90] Dr Dingle Spence acknowledged that although her original position was that Mr Hennie's lung cancer was likely to have been caused by cement dust, and that conclusion stood, she had discovered that the chemicals used in wet concrete were considerations as well. She was not aware of any specific study in Jamaica that referred to the effects of wet cement on workers or lung cancer. She stated, at page 212 of the record of appeal:

> "We are a poor country, we don't have the resources to identify these studies, so no."

[91] In answer to the suggestion that she did not know what Mr Hennie did in the course of his employment, Dr Dingle Spence stated that she knew he was a pump attendant, he was sweeping the yard and had been exposed to cement dust. She had based her diagnosis on many other papers and evidence including material on silica dust which shows that the risk of lung cancer is highly increased. The doctor also agreed that she had no conclusive evidence that Mr Hennie's cancer was caused by chemicals which the appellant used in the cement.

The judgment

[92] As previously indicated, at the hearing of the claim, the appellant accepted that it owed Mr Hennie, its employee, a non-delegable duty to take reasonable care for his safety. It had, however, disputed whether it had acted in breach of that duty. The judge found that the appellant had acted in breach of its duty of: providing a safe

system of work, its statutory duty under the Factories Act and its duty pursuant to the Occupiers Liability Act. The judge found that there was evidence either that the appellant knew, or ought to have known, that it was operating a business that was in or of itself dangerous or hazardous. In addition, there was evidence that the unsafe state of the premises led to or contributed to Mr Hennie contracting lung cancer. As indicated above, the appellant has not pursued its grounds of appeal challenging the judge's findings as to its breach of duty. The focus has been on the issue of the medical experts, causation, remoteness of damage and the quantum of damages awarded.

[93] At paragraphs [89]- [131] of her judgment the judge addressed all of the above issues apart from the quantum of damages. She indicated that she would first determine whether Mr Hennie had presented evidence that establishes that cement dust causes cancer. This touched and concerned the evidence elicited from the two medical experts who were qualified, experienced and highly respected in their relevant fields of expertise. They were, however, from different disciplines and this added to the difficulty of determining which view would be given precedence.

[94] Earlier in the judgment, the judge outlined her understanding of the distinct roles of the expert witnesses in contrast with that of the judge, as well as the approach she would take in resolving conflict of evidence from the medical experts (see paragraphs [32]- [36]). At paragraph [36] she stated:

> "…The following represents my appreciation of the guiding principles distilled from the several authorities and the approach taken by me in resolving the conflict:

i. The opinion provided by experts is merely one part of the evidence available to the court at the fact-finding stage.

ii. In the end the judge has the duty of making a finding on the issues of fact before the court, relying on evidence led by the parties and such additional evidence as may be available in exercise of her function.

iii. In coming to her decision, the judge is also guided by the experience of the expert in the area and the substance of his evidence, as well as the manner in which the evidence was given.

iv. However, where the judge rejects the opinion of one expert in favour of another, he is under a duty to give reasons for doing so. **Flannery v Halifax Agencies Ltd** [2002] 1 All ER 373."

[95] The judge noted that, while Dr Dingle Spence testified that she was trained in assessing studies that looked at the causes of cancer and assessing those on merit, Dr Scott did not lay claim to any such expertise. It was also significant that Dr Dingle Spence indicated in her report the literature on which she relied in arriving at her conclusions, and provided the court with copies of some of the articles. Dr Scott did not do so. The judge was not able to say which expert had spent more time in research on the issues. In comparing the curriculum vitae of the experts, she found that Dr Dingle Spence had a greater concentration of publications and continued medical education in the area of cancer. In addition, Dr Dingle Spence had undertaken specific studies in cancer and had greater practical experience in the examination and treatment of cancer patients at a ratio of approximately 4:1 when compared to the number of patients seen by Dr Scott on an annual basis.

[96] At paragraph [94] the judge outlined the approach which she would take in analysing the expert evidence. She stated:

> "A useful starting point in my analysis of the expert evidence is to evaluate the witnesses and the soundness of the opinions expressed by them. This is the approach advocated by Thomas, J. and approved by the Appellate Court, in ***Huxley v Elvicta Wood Engineering Ltd and James Neil (services) Ltd*** [2000] EWCA Civ. 139. Most importantly I must undertake an examination of the reasons given for the opinions and to say whether any evidence supports the conclusion of the particular expert witness. In that vein I will now turn to the studies and reports tendered in the evidence to determine whether they suggested a link between inhalation of cement dust and bronchioalveolar carcinoma of the lungs. I do this for two (2) reasons; firstly, because they constituted the raw material which was interpreted by the experts, and secondly, because, any preference of the experts must be reinforced by my own consideration and analysis of that evidence."

[97] At paragraph [95] the judge referred to one study, the 1991 Vestbo article, on which Dr Scott relied to disprove any link between cement dust and lung cancer. The judge noted the authors' conclusion that their study cast serious doubt on previous studies showing an excess risk of cancer, especially respiratory cancer, among cement workers.

[98] The judge then referred to the 2003 Smailyte article, at paragraphs [96]-[97] of her judgment, including its conclusion that the study supported the hypothesis that exposure to cement may increase lung and bladder cancer risk, but more studies were necessary before a final conclusion can be drawn.

[99] In referring to the 1996 Rafnsson article, the judge noted the authors' statement that the increased risk of lung cancer among masons may be related to their work. Further, the exposure information, though limited, supported the suggestion that hexavalent chromium in the cement could be the causal link, as information on the smoking habits indicated that the control for that possible confounder was adequate.

[100] Meo's 2004 article was then examined. In it the writer stated that high concentration or prolonged inhalation of cement dust in cement industry workers could provoke clinical symptoms and inflammatory response, that could result in functional and structural abnormalities. The judge noted that, according to the writers, the most frequently reported respiratory system clinical features in cement mill workers were cough and phlegm production, chest tightness, impairment of lung function and carcinoma of the lung, among other things.

[101] The final report to which the judge referred was the 2010 Zeleke study. The writers concluded that total cement exposure was related to acute respiratory symptoms and acute ventilator effects. Stringent follow-up and providing high-quality personal respiratory protective equipment for the production workers was highly recommended, and further studies to investigate the possible sensitizing effects of cement were needed. In commenting on the study the judge stated, at paragraph [102]:

> "So whilst this study did not specifically conclude that cement dust or substances in wet concrete causes carcinoma of the lung it states that it can cause serious respiratory illnesses and emphasized the stringent need to

> provide protective gear for the production worker in the industry."

[102] Having reviewed the various studies, the judge stated at paragraph [103]:

> "Based on my appreciation of the foregoing literature I am of the view that there is an evidential basis for Dr Spence's conclusions. She had indicated that [Mr. Hennie's] disease may well have arisen as a result of many years of prolonged occupational exposure to cement dust. She maintained this position throughout the trial and in cross-examination indicated that 90% of lung cancer was tobacco-related and 10% would be considered to be caused by occupational exposure. Having regard to the unremarkable medical history of [Mr Hennie] coupled with the fact that he is a non-smoker then the reasonable and inescapable inference is that he must fall within the 10% occupational ratio. It is submitted by Counsel Mr. Jones that 'there is no other evidence of [Mr Hennie] having any other occupational exposure apart from cement dust and substance in wet concrete…it is extremely unlikely that something else caused [Mr Hennie] to develop cancer'."

[103] The judge pointed out that in **Huxley v Elvicta Wood Engineering Ltd and James Neil (services) Ltd** the medical expert in that matter did not state that he knew for a fact that the wood dust could cause squamous cell carcinoma. Instead, the medical expert stated that "it is highly suggestive of an association". Nevertheless, the trial judge had found that, on a balance of probabilities, the wood dust caused cancer, and the appellate court did not disturb that finding.

[104] The judge found that Dr Dingle Spence had greater experience of diagnosing the cause and treatment of cancer. She also found Dr Dingle Spence's clinical experience to be crucial in the circumstances. Importantly, she commented that Dr Dingle Spence did not merely state that she believed that the exposure to cement dust and substances in

wet concrete were likely to have caused Mr Hennie's cancer, but she actually explained in her report how they could have done so.

[105] Dr Scott, the judge noted, relied on only one article casting doubt on the research conducted by Dr Dingle Spence. That particular study on which he relied had certain limitations in respect of the size of the study population, the short length of time span of the study, and information relative to the exposure to cement dust during the participants' working life. These were factors which Dr Scott agreed were important to the integrity and reliability of a study.

[106] The judge noted Dr Dingle Spence's admissions in the course of cross-examination including that she had made her conclusions as to Mr Hennie's exposure based on what he told her about his occupation, and had not undertaken any visit to his place of work or any job sites. The doctor had substantiated her view by reference to the studies detailed previously and exhibited to her report.

[107] The judge also noted that some of the studies reviewed and relied on by Dr Dingle Spence related to workers in the cement producing industry which was "not exactly like Mr. Hennie's circumstances".

[108] The various criticisms made by counsel for the appellant were also highlighted by the judge including that:

a. the 2004 Meo article on which Dr Dingle Spence relied had erroneously referred to the findings of the 1991 Vestbo article;

b. Dr Dingle Spence's opinion was unbalanced and did not reflect the full extent of studies including those which did not find a correlation between exposure to cement dust and lung cancer; and

c. Mr Hennie's exposure to cement dust, if any, was limited and much less than the persons in the studies on which Dr Dingle Spence had relied.

[109] Note was also made by the judge of counsel for the appellant's submissions that Dr Scott was a more reliable witness with more balanced evidence, as he had indicated that cement dust and wet cement can in general be irritating and cause respiratory illness. Further, that Dr Scott stated that, while some studies supported the thesis that workers in the cement industry have a significantly increased incidence of lung cancer, other studies had resiled from that position, and so at best the evidence that cement dust is cancer forming is inconclusive.

[110] Having highlighted these various points, the judge stated, at paragraphs [111-[112]:

> "It seems to me that the first question I must answer is whether there is evidence that cement dust and substances

> in the [appellant's] wet concrete such as retarders, plasticizers and silica are cancer-causing and my answer is yes. Notwithstanding the criticisms levied against Dr. Spence's evidence some of the studies relied upon by her are capable of supporting this conclusion…
>
> Having read the scientific evidence provided by [Mr Hennie] and my understanding of it and having recall of Dr Spence's demeanor in the witness box, I do not agree with Mrs. Mayhew's submissions that Dr Spence is not a credible or reliable witness. On the contrary, I am of the view that the material she reviewed and upon which she based her professional opinions do support that cement dust and certain chemicals added to the [appellant's] concrete mixture when inhaled over a prolonged period result in lung cancer."

[111] Noting that where an employee pursues an action involving a contracted occupational disease the employee must establish a connection between the disease he contracts and the conditions likely to cause it while carrying out his duties, the judge went on to highlight that in the case before her, there was only one identified source of dust which could have materially contributed to Mr Hennie's lung cancer. After referring to the case of **Gardiner v Motherwell Machinery and Scrap Co Ltd** [1961] 3 All ER 831, the judge found that the matter before her was similar to that case. She concluded that in light of Dr Dingle Spence's evidence, she was satisfied that the causative link had been established by Mr. Hennie and the evidential hurdle overcome.

[112] Moving on to the issue of foreseeability, the judge referred to the cases of **Wagon Mound no. 1** [1961] AC 388 and **Wyong Shire Council v Shirt** [1980] HCA 12, and stated that the test for remoteness of damage is that damage must be of a kind that is foreseeable. Further, once damage is of a kind that is foreseeable, the

appellant is liable for the full extent of the damage regardless of whether the extent of the damage is foreseeable.

[113] At paragraphs [122]- [124] the judge stated:

> "[122] Was it foreseeable that [Mr Hennie] was exposed to the risk of injury in all aspects of the [appellant's] production of pre-mixed concrete? [Mr. Hennie] was not engaged in the production process as the system was an automated one. He did not handle the cement compound directly and in his work was only required to sweep up spillage that would have included cement dust particles. He would also have been in proximity to the concrete product on a daily basis in his capacity as a Pump attendant and therefore would have been exposed to fumes from the added chemicals.
>
> [123] The [appellant] would have been aware that dust and fumes would be a likely result of its production process and business operations and hence by their witness said they provided safety gear of dust masks. Mr. Smith the supervisor had said that the purpose of the dust mask is 'to place it over nostrils to protect from dust and unpleasant smells and anything of the sort. Unpleasant smells could vary from smelling something like dirty water, dead animals, fumes and dust'.
>
> [124] There was no evidence of dead animals associated with [Mr. Hennie's] work and Mr. Smith would be aware of this. Thus his reference to wearing a dust mask as protection from 'fumes and dust' demonstrates his awareness of the hazards associated with [Mr. Hennie's] employment. Even the evidence of Dr. Scott although not agreeing that cement dust caused cancer nonetheless agreed that it is known to be an irritant and can cause some respiratory conditions. Therefore the risk of danger of some resulting adverse effect to [Mr. Hennie] was certainly not 'far-fetched' or 'fanciful'."

[114] At paragraph [131] of the judgment, the judge summarized her findings of fact. She stated:

> "The [appellant] sought to deny any blameworthiness on its part and gave an account diametrically opposed to that given by [Mr. Hennie]. I do not find that Mr. Smith and Mr. Ricketts were particularly forthright in respect of some aspects of their evidence, particularly as it concerns [Mr. Hennie's] duties and their requirement for him to sweep the [appellant's] premises. Neither do I find them to be truthful in relation to the provision of safety gear given to [Mr. Hennie]. After careful consideration of the evidence in total, bearing in mind the burden and standard of proof to be met by [Mr. Hennie], I make the following findings:
>
> i. I find on a balance of probabilities; that the testimony of Dr Spence is more cogent than that of Dr Scott and so I rely upon her expertise.
>
> ii. Based on the medical expert evidence I find that Mr. Hennie has contracted lung cancer and that it is referable to the work he was obliged to do in relation to the [appellant's] business during the period 1997-2012.
>
> iii. That on a balance of probabilities I find that cement dust as a component of other dust he inhaled in the course of his employment is the cause of his lung cancer.
>
> iv. I find that the [appellant] as an employer was at the material time in breach of its common law and statutory duty of care arising under the Factories Act Regulation and the Occupiers Liability Act. In that it failed to provide a safe system of work and a safe place of work; and that said breach resulted in harm to [Mr. Hennie].
>
> v. That the [appellant's] breach of that duty and the lack of adequate provision of safety equipment (dust mask) has caused [Mr. Hennie] to suffer harm and contracted [sic] lung cancer.

vi. That the harm suffered by [Mr. Hennie] was reasonably foreseeable by the [appellant]."

The grounds of appeal

[115] These are the grounds which were filed in support of the appellant's challenge of the judge's decision:

"1. The learned judge erred as a matter of law in finding that the Appellant had breached its common law duty in failing to provide a safe place and safe system of work.

2. The learned judge erred as a matter of law in finding that the Appellant had breached its statutory duty of care under the Factories Act Regulation and the Occupiers Liability Act;

3. The learned judge erred as a matter of law in accepting the evidence of Dr. Dingle Spence over the evidence of Dr. Paul Scott;

4. The learned judge erred as a matter of law in her assessment of the medical studies that were tendered in evidence and relied on by Dr. Dingle Spence and their applicability to [Mr. Hennie's] circumstances;

5. The learned judge erred as a matter of law in finding that the Appellant's alleged breach of duty and but for the lack of provision of safety equipment (dust mask) caused [Mr. Hennie] to suffer harm and contract lung cancer;

6. The learned judge erred as a matter of law as she applied the wrong test to establish causation;

7. The learned judge erred as a matter of law in finding that the damage suffered by [Mr. Hennie] was reasonably foreseeable;

8. The learned judge erred as a matter of law in relying on the case **Henegham (Son and Administrator**

in the Estate of James Leo Henegham, (Respondent) v Manchester Dry Docks Ltd and others as an appropriate and reasonable guide to assessing the award of damages for pain and suffering and loss of amenities;

9. The learned judge erred in failing to reopen the case and to properly revisit the award of damages for pain and suffering and loss of amenities in view of her reliance on the **Henegham** decision in arriving at her award, which was a plain mistake.

10. The award for pain and suffering and loss of amenities is inordinately high and inconsistent with other awards made in comparable authorities.

11. In making the award for damages for pain and suffering and loss of amenities the learned judge erred in failing to discount the award of damages in the **Henegham** authority, it being an authority from the United Kingdom."

[116] Grounds of appeal [1], [2] and [9] were not pursued.

[117] The appellant seeks the following orders:

"1. The order of the Honourable Mrs Justice Georgiana Fraser (Ag.) be set aside.

2. Judgement [sic] to be entered for the Appellant.

3. In the alternative that the award of damages for pain and suffering and loss of amenities be reduced.

4. Costs of the appeal and costs in the Court below to the Appellant be taxed if not agreed."

Submissions on the issue of liability

Grounds 3, 4, 5 and 6 – Expert evidence/Causation

[118] Grounds 3, 4, 5 and 6 raise the following questions, which are linked to the judge's conclusion that the appellant was liable:

(i) Did the judge err in preferring the evidence of Dr Dingle Spence over that of Dr Scott?

(ii) Did the judge err in

(a) her understanding of the medical studies on which Dr Dingle Spence relied, and

(b) the applicability of the said studies to Mr Hennie's circumstances?

(iii) Was the judge correct in concluding that the appellant's breach of duty, including its lack of adequate provision of safety equipment caused Mr Hennie to contract lung cancer?

(iv) Did the judge rely on the correct legal test to establish causation?

Appellant's submissions

[119] Queen's Counsel Mr Foster referred to the fact that the judge, after hearing the expert evidence of both Dr Paul Scott and Dr Dingle Spence, accepted the evidence of Dr Dingle Spence. At paragraph [36] of her judgment the judge cited the authority of

Flannery v Halifax Agencies Ltd [2002] 1 All ER 373 where she acknowledged that, if she rejects the opinion of an expert, she is duty-bound to give reasons for so doing. The judge at paragraph [105] stated that Dr Dingle Spence had greater experience in diagnosing the cause of cancer and treatment of cancer. She also noted that Dr Dingle Spence did not just state that she believed that the exposure to cement dust and substances in wet concrete was likely to cause the cancer, but explained how it could have done so.

[120] However, it is Queen's Counsel's submission that the judge was palpably wrong to have accepted Dr Dingle Spence's evidence when she concluded that cement dust was a cancer compound. Queen's Counsel then went on to do a comprehensive comparison of the experts' evidence and advanced reasons why the evidence of Dr Scott ought to have been accepted instead of that of Dr Dingle Spence.

[121] Queen's Counsel contended that the judge, relying on studies advanced by Dr Dingle Spence, erred, as reflected at paragraph [111] of her judgment, in finding that cement dust and substances in the appellant's wet concrete such as retarders, plasticizers and silica were cancer-causing. Queen's Counsel submitted that the articles relied on in this matter are indeterminate and inconclusive. None of them reveal any clear scientific consensus that there is a causative link between cement dust and cancer of the lung. Additionally, the judge erred in concluding that the question of the increased risk of workers in the cement industry developing lung cancer was not a question related to foreseeability but to causation.

[122] Queen's Counsel also argued that the facts in the studies to which the doctor referred were materially different, as those studies were carried out at cement factories with extremely high levels of exposure to cement dust. Further, there is no indication that the judge appreciated the difference in the circumstances. Of significant note, none of these studies relate to persons working with wet concrete.

[123] Continuing, Queen's Counsel submitted that the evidence before the court was that the appellant manufactures concrete, of which cement is a mere constituent. That Mr Hennie, as a pump attendant, worked with wet concrete and was not exposed to cement dust as indicated in the studies relied on. Therefore, Queen's Counsel submitted, the judge, in not giving these facts adequate weight, erred in her finding. In addition, Queen's Counsel submitted that the judge erred in law in finding that Mr Hennie suffered lung cancer after being subjected to conditions that were likely to cause it, as there was no evidence that he contracted lung cancer during the course of his contract of employment. In the absence of any evidence to support the finding that Mr Hennie suffered lung cancer after being subjected to conditions that were likely to cause it, counsel submitted that the judge misapplied the law.

[124] Queen's Counsel accepted that an appellate court should be slow to interfere with the findings of fact of a trial judge as it relates to the evidence of a lay witness, but contended that it is not the same position when findings are based on expert evidence. To support this point Queen's Counsel referred to the following cases - **Joyce v Yeomans** [1981] 2 All ER 21, **Eckersley and others v Binnie and Others** 18

ConLR 1 para 77 and **West Indies Alliance Insurance Company Limited v Jamaica Flour Mills Limited** [1999] UKPC 35. As such, Queen's Counsel submitted that this court is entitled to review the expert evidence to determine whether the judge's assessment of the experts' evidence and opinion was flawed. If it was, then this court is entitled to come to its own conclusion.

[125] Queen's Counsel pointed out that the judge, in making the causation leap, relied on **Gardiner v Motherwell Machinery and Scrap Company**. In that case, the court noted a particular approach in resolving conflict of medical evidence and determining whether there was a causal connection. The court also noted that a prima facie presumption existed if a disease developed in a particular way which is typical of disease caused by such conditions. At paragraph [118] the judge in the instant case concluded that the case at Bar was similar. However, Queen's Counsel submitted that that case could not have assisted the court in resolving the issue of causation in the instant claim because there was no evidence which indicated that the way in which Mr Hennie's cancer developed was typical of his contracting cancer in the course of his employment.

[126] Queen's Counsel submitted that it is a basic principle that in establishing liability in an action for personal injuries, the claimant must prove on a balance of probabilities that the defendant's tortious conduct caused or materially contributed to the injury. The conventional way of proving causation is to establish that, but for the breach of duty, the injury would not have occurred (the 'but for' test). However, it is well established

that this test can be relaxed where necessary. In cases where the issue of causation arises in respect of disease resulting from exposure, usually occupational exposure, to harmful agents, the courts have often applied the "material contribution" test as applied in **Bonnington Castings Ltd v Wardlaw**, per Lord Reid.

[127] Based on the foregoing, Queen's Counsel submitted that, on the evidence, the causal link between cement dust and lung cancer was very tenuous. In this case it was not established that, but for a breach of duty by the appellant, Mr Hennie would not have contracted lung cancer.

Respondent's submissions

[128] Grounds 3 and 4, concerning the judge's assessment of the medical studies and the evidence of the medical experts, were argued together. Counsel for the respondent, Ms Moore, contended that the judge did a clinical assessment of the experts' evidence. At paragraphs [32] – [36] of the judgment, the judge stated the law which guided her, and, at paragraphs [46] – [50], she looked at the evidence of Mr Hennie's expert. Further, at paragraphs [52] and [54], she summarized the position and experience of the expert on which the appellant relied. At paragraphs [90] – [112], in arriving at her conclusion, as was correct, the judge examined the evidence including the material relied on by the experts (see **Elvicta Wood Engineering Ltd and James Neil (Services) Ltd v Huxley**).

[129] Counsel submitted that the judge, having considered the several articles presented to the court, at paragraphs [93], [94] and [112] of her judgment, accepted

the evidence of Mr Hennie's expert. Counsel rejected the assertion of counsel for the appellant that the judge failed to recognized that none of the studies related to persons working with wet concrete. To the contrary, the 1996 Rafnsson study considered the casual link between wet concrete and lung cancer. Therefore, there was sufficient material before the judge for her to have arrived at the conclusion she did, and as such this court should not interfere (see **Peter Wardlaw v Dr. Stephen Farrar** [2003] EWCA Civ 1719, per Brooke LJ).

[130] In relation to ground 5, on the question of causation, counsel argued that the judge did not err in finding that there was a breach of duty on the part of the appellant, as it was open to her to arrive at that conclusion based on the evidence before her and having heard the witnesses. At paragraph [113] of the judgment, the judge applied the correct test to determine the actions or inaction of the appellant that caused the loss suffered by Mr Hennie.

[131] Counsel highlighted that the evidence before the court revealed that Mr Hennie did not receive dust masks every day to protect himself, and there was no system at the workplace at the time to ensure that dust masks were given to him. In addition, there were no signs, notices or warnings about the effect of cement dust. While the appellant had argued that Mr Hennie had access to dust masks, as they were available at the store to be taken as needed, there was no evidence that anyone checked to ensure that the appellant's employees wore the dust masks.

[132] Counsel submitted that the judge acknowledged that in an action involving contracted occupational diseases, the employee must establish a connection between the disease he contracted, and the conditions likely to cause it while carrying out his duties as the defendant's employee. In **Gardiner v Motherwell Machinery and Scrap Company**, Lord Reid indicated that there would be a presumption of a connection where the person did not have the disease before, was subjected to conditions which could cause it and it starts in a manner typical of diseases caused by such conditions (see also **Bonnington Castings Ltd v Wardlaw** [1956] AC 613, per Lord Keith of Avonholm). Counsel then highlighted the evidence of Dr Dingle Spence that exposure to cement retarder, superplasticizer and silica caused bronchoalveolar cancer. In addition, the articles referred to by Dr Dingle Spence supported a finding that inhalation of these substances can cause cancer and there was evidence that Mr Hennie did not smoke.

[133] The judge at paragraph [89] analysed whether the evidence presented by Mr. Hennie established that cement dust causes cancer. She recognised that if there was no such link the claim would fail. At paragraph [103], the judge concluded, having gone through the competing medical evidence, that there was an evidential basis for Dr Dingle Spence's conclusions. The judge considered the fact that Mr Hennie had an unremarkable medical history and that he was a non-smoker, therefore falling within the 10% occupational ratio. Counsel further submitted that the judge rightly concluded that there was no other evidence to suggest that Mr. Hennie had any other occupational exposure apart from the cement dust and the substances in the wet

concrete. The judge therefore correctly concluded that, based on the evidence presented, a causal connection was established.

Analysis

[134] In the case of **Industrial Chemical Co (Ja) Ltd v Ellis** (1986) 23 JLR 35, the Privy Council ruled that it is only in cases where the findings of the tribunal are not supported by the evidence, or it is clear that the tribunal did not make use of the benefit of having seen and heard the witnesses, that the appellate court would disturb those findings. Similarly, in **Beacon Insurance Company Limited v Maharaj Bookstore Limited** [2014] UKPC 21, it was stated, in part, at paragraph 12:

> "... It has often been said that the appeal court must be satisfied that the judge at first instance has gone '**plainly wrong**'. See, for example, Lord Macmillan in **Thomas v Thomas** [[1947] AC 484] at p 491 and Lord Hope of Craighead in **Thomson v Kvaerner Govan Ltd** 2004 SC (HL) 1, paras 16-19. This phrase does not address the degree of certainty of the appellate judges that they would have reached a different conclusion on the facts: **Piggott Brothers & Co Ltd v Jackson** [1992] ICR 85, Lord Donaldson at p 92. **Rather it directs the appellate court to consider whether it was permissible for the judge at first instance to make the findings of fact which he did in the face of the evidence as a whole.** That is a judgment that the appellate court has to make in the knowledge that it has only the printed record of the evidence. The court is required to identify a mistake in the judge's evaluation of the evidence that is sufficiently material to undermine his conclusions. **Occasions meriting appellate intervention would include when a trial judge failed to analyse properly the entirety of the evidence**: **Choo KokBeng v Choo Kok Hoe** [1984] 2 MLJ 165, PC, Lord Roskill at pp 168-169." (Emphasis added)

[135] In **Eckersley and others v Binnie and others** 18 ConLR 1, Lord Bingham, although dissenting on certain aspects of the outcome of the appeal, also addressed the question of the advantage enjoyed by a first instance trial judge. He also referred to the question of the resolution of conflicts of expert evidence. At pages 77-78 of the judgment he stated:

> "Since this appeal is very largely concerned with questions of fact, it is appropriate to touch on the proper role of this court in considering such questions. We were referred to the leading cases, all of high authority, which define the proper role of appellate courts when deciding appeals against factual conclusions reached by trial judges. The Court of Appeal has jurisdiction to entertain such appeals in cases such as this, and the appeal is by way of rehearing. But the Court of Appeal is a court of review. It does not approach the resolution of factual issues as if the sheet before it was blank. It has to be persuaded that the trial judge who is the primary judge of fact, has plainly erred. Very rarely, if ever, will the court be so persuaded if the trial judge's conclusions rest on his assessment of the credibility and demeanor of witnesses, because this assessment is one which the judge who sees and hears the witnesses may make, and judges who only read the transcript and the documents cannot. This advantage enjoyed by the trial judge must never be overlooked or devalued. But, while fully recognising and respecting the advantages enjoyed by the trial judge, the Court of Appeal should not abdicate its duty of review. If all the evidence on a point is one way, good reason needs to be shown for rejecting that conclusion. If the overwhelming weight of evidence on a point is to one effect, convincing grounds have to be shown for reaching a contrary conclusion. Where the trial judge has founded on a witness's oral evidence, the court will not uphold the finding if persuaded that it is not justified on a fair construction of what the witness actually said. The court will not support the dismissal of a witness's evidence where this rests on what is shown to be a misunderstanding or a wrong impression.

> **In resolving conflicts of expert evidence, the judge remains the judge; he is not obliged to accept evidence simply because it comes from an illustrious source; he can take account of demonstrated partisanship and lack of objectivity. But, save where an expert is guilty of a deliberate attempt to mislead (as happens only very rarely), a coherent reasoned opinion expressed by a suitably qualified expert should be the subject of a coherent reasoned rebuttal, unless it can be discounted for other good reason. The advantages enjoyed by the trial judge are great indeed, but they do not absolve the Court of Appeal from weighing, considering and comparing the evidence in the light of his findings, a task made longer but easier by possession of a verbatim transcript usually (as here) denied to the trial judge**." (Emphasis supplied)

[136] This court is in a position to see whether there was evidence to support the conclusions to which the judge arrived. This relates to not only the medical reports provided by the experts, and their oral evidence, but also the medical studies on which they relied.

[137] I have also found **Elvicta Wood Engineering Ltd and James Neal Services Ltd v Huxley** to be very helpful in considering and determining the issues in this matter. In that case, the claimant worked for the defendants as a machine operative from 1954 until 1980 when he was made redundant. He then worked in his own business. In 1992 he was found to be suffering from sino-nasal cancer. It was not adenocarcinoma (AC) which had been shown to be caused by exposure to hardwood dust, but squamous cell carcinoma (SCC). While employed to the defendants, the claimant had been heavily exposed to wood dust, mainly hardwood, but some softwood. The defendants admitted that this was a breach of statutory duty and

constituted negligence. At trial the claimant contended that, on a balance of probabilities, it was the wrongful exposure which caused his SCC. The judge ruled in favour of the claimant.

[138] At the trial, three expert witnesses gave evidence. One of the experts, Professor Seaton, concluded:

> "While the evidence associating squamous carcinoma of the nasal sinuses and work with wood is less strong than that for adenocarcinoma, there is in my opinion sufficient to conclude on the balance of probabilities that such an exposure is causative in the case of an individual who (1) has had prolonged and heavy exposure, especially if that exposure has been to hardwood dust, and (2) has developed the tumor at a time consistent with the known natural history of carcinogenesis."

[139] Mr Baer, another expert, arrived at a different conclusion, principally relying on a particular study. The judge did not attach much weight to the evidence of the third expert, whose evidence was based on a reading of the papers in the matter, and his expertise did not allow him to assist with the causal connection between a disease and a carcinogen.

[140] Kennedy LJ, on the hearing of the appeal against the judge's decision, addressed the judge's approach to the "principal experts on the issue of causation". He stated:

> "…the judge was right to consider not only what they said, but also what he regarded as their relevant expertise, and the impression they created when giving evidence. Of course if the experts misinterpreted the material with which they had to work, and in particular if they misinterpreted it for partisan reasons, then that would be bound to affect the judge's assessment of them overall, but if they were each

> doing what they could then, as it seems to me, it is quite impossible for this court to go behind the judge's evaluation of them and of the impact of their evidence, and it should not attempt to do so."

[141] Counsel for the appellant in that matter argued that conventional medical learning did not regard exposure to wood dust as causing SCC and so the claimant was "seeking to advance medical frontiers". The manner in which Kennedy LJ treated with this issue is crucial, as a somewhat similar situation arises in the case at Bar. He stated:

> "When he began his submissions in this court Mr Spencer pointed out that sino-nasal cancers of all types are relatively rare, and although it is accepted that hardwood dust causes AC 'conventional medical learning' does not, he submitted, regard exposure to wood dust as causative of SCC. The claimant is therefore, Mr Spencer submitted, 'seeking to advance medical frontiers'. I doubt if the claimant has any such ambitions, and certainly our concern in this court is very different. **We merely have to decide whether, on the material presented to him, as interpreted by the witnesses, the judge was entitled to conclude as he did, namely that on the balance of probabilities the cause or a significant cause of this claimant's SCC was his wrongful exposure to large amounts of wood dust over many years.** That does not mean that we are entitled to ignore known limitations on the value of statistical material or anything of that sort, but what it does mean **is that we do not have to search for medical certainty, and even if we do uphold the judge's decision we can contemplate with equanimity the possibility that at some time in the future it may be shown, on a balance of probabilities or perhaps to an even higher standard, that the judge was wrong**." (Emphasis supplied).

[142] In light of the principles outlined above, the question is whether, on the material before the judge in the instant case, including the medical studies or articles and

evidence of the expert witnesses, the judge was entitled to, on a balance of probabilities, arrive at the particular conclusions. The court does not have to search for medical certainty.

[143] In further reference to **Elvicta Wood Engineering Ltd and James Neal Services Ltd v Huxley**, I note that Professor Seaton, a medical expert in the case, had opined that the evidence of the various studies suggested, but did not 'prove to the level of medical certainty' that woodworking in certain circumstances could be associated with an increased risk of SCC. Kennedy LJ concluded that there was ample evidence to enable the judge to decide as he did on the issue of causation.

[144] Buxton LJ agreed. He identified what he deemed to be the cornerstone of the appellants' criticisms of the judge's decision:

> "It was the cornerstone of the appellants' criticism that it was necessary first to be satisfied on the basis of epidemiological studies that there was generally a more than random or chance possibility of SCC being caused by exposure to hardwood dust; and only if the Judge were properly so satisfied was it permissible to go on and consider whether the instant individual case is one that fits into the overall pattern of causation. Mr Spencer said that the Judge, and Professor Seaton, had taken these steps in the wrong order; or, at least, had not followed the proper scheme with sufficient rigour. They had had regard, in particular, to the plausibility of the claimant's illness being caused by exposure to dust, and in so doing had given insufficient weight to, or had overlooked, the difficulties as to the statistical analysis of the epidemiological studies.
>
> The Judge did, however, address the epidemiological studies, and in my view at the appropriate stage of his judgment. But it was contended that he had been wrong in his approach because, in the terms of para 8 of the Notice of

> Appeal, he placed excessive weight upon the scientific studies by Acheson et al (1972), Andersen et al (1977), Boysen et al (1982) and Vaughan and Davies (1991) and insufficient weight upon the Bradford-Hill criteria and the study by Dermers et al (1995)."

Buxton LJ responded to these submissions in the following way:

> "I am afraid that I found this concentration upon the statistical implications of the evidence, and the Judge's handling of it, extremely unsatisfactory. No statistician was called at the trial, and we were therefore sought to be drawn into areas of technical expertise without any specific guidance upon them. **I am, however, entirely clear that in these circumstances the Judge was fully entitled, indeed bound, to act on such evidence as was made available to him, and not to seek to enter upon his own analysis or critique of the implications of the scientific studies. In so doing he was further plainly entitled, and for my part I would say also bound, given the view that he formed of the witness, to follow the guidance that he received from Professor Seaton.** As my Lord has pointed out, although Professor Seaton was not a professional statistician he was highly distinguished in a field, occupational medicine, which inevitably engages the techniques of population studies that are found in the material relied on in this case. The Judge was right to compare his qualifications in that respect favourably with those of Dr Baer, who agreed in cross-examination that his evidence and opinion was based almost entirely on the Demers study. It was therefore both second-hand, and self-supporting: in that it assumed the paramountcy of the Demers study. If the appellants wished to contend as a matter of statistical expertise that, as it were, the Demers study trumped all other work in the field, then they had to call a witness skilled in that expertise to say so: which Dr Baer was not.
>
> **The Judge is therefore not to be criticised for the respective weight that he gave to the various scientific studies. He did that because what he rightly considered to be the most reliable evidence available to him pointed him in that direction. The premise of the appellants' criticism, that the Judge should have**

> **accepted that the evidence established no general pattern of causality, thus disabling him from considering any further the case of this particular plaintiff, therefore falls away**." (Emphasis supplied).

Buxton LJ concluded his judgment by emphasising that the connexion between the wood-dust and the cancer was to be established on the balance of probabilities on the basis of all the evidence, an enquiry which, in his view, the judge had properly carried out.

[145] In the instant case the matter of causation is inextricably linked with the medical evidence, and so it is the judge's assessment of the medical reports, the expert evidence, and the various studies that is critical against the backdrop of the particular factual matrix. One of the issues raised by the appellant is whether the judge erred in her assessment of the medical studies that were tendered in evidence and on which Dr Dingle Spence relied. This requires a comparison of the conclusions to which the writers of the various medical studies arrived, and a review of how the judge reflected her understanding of these conclusions.

[146] The appellant has also raised the question as to whether the studies in question could be relied on, in light of the difference in their factual scenario with that in which Mr Hennie worked.

[147] The writers of the 1991 Vestbo article took the position that scientifically satisfactory studies were not able to confirm an increased risk of lung cancer in the men exposed to cement dust. They referred to a 1986 article published by Rafnsson and others in which they had concluded that there was an increased risk of lung cancer

among masons. The writers of the 1991 Vestbo article said they did not see why cement dust and "especially hexavalent chromium" in cement dust was regarded as the most probable carcinogenic agent. They felt chromate in cement was very low. By way of comment, it seems to me that a part of the concerns expressed by the writers of the 1991 Vestbo article was the conclusion that chromate in the cement dust was the likely cause of the lung cancer which had been detected in the masons.

[148] The 1996 Rafnsson article appears to have arrived at similar conclusions as the 1986 Rafnsson article, to which reference was made in the 1991 Vestbo article. Some of the points highlighted in the article are still noteworthy – such as the fact that the main job of the masons was to finish and smooth surfaces of concrete structures and the spraying of wet concrete produced an "aerosol". In addition, the writer felt that exposure to silica could have been a confounding factor in the study. The point is, however, that in the 1996 Rafnsson article the writers concluded that the increased risk of lung cancer among the masons could be related to their work.

[149] Meo in his 2004 article gave a view in more confirmatory terms that cement dust causes lung cancer. While Meo made an incorrect reference to the findings of the 1991 Vestbo article, in that the 14 cases of respiratory cancer observed by writers of that article were **not** taken to be confirmatory that cement dust caused cancer, this one highlighted incorrect reference would not have required the judge to totally discount the entire value of this study, which Dr Dingle Spence had found helpful.

[150] The writers of the 2003 Smailyte article stated that exposure to cement dust may increase lung cancer risk, while the writers of the 2010 Zeleke article concluded that total cement dust exposure was related to acute respiratory symptoms. Interestingly, they said that dust exposure was highest during cleaning tasks.

[151] Upon a review of the above articles, it is clear that Dr Dingle Spence had sufficient support in the studies for her conclusion that exposure to cement dust can cause lung cancer.

[152] Furthermore, when one examines the judge's reference to the conclusions to which the writers of the studies arrived, apart from the possible understatement of the outcome of one of the studies, there is no error. On reviewing her outline of the conclusions to which the writers of the 2003 Smailyte article arrived, it is questionable whether they were saying that more studies needed to be done in respect of cement dust causing cancer of the lung, or whether this caveat really only related to colorectal cancer-see page 362 of the record. In that regard, the judge may have understated the conclusions of the writers who, in my view, were positive in their view that their studies supported the hypothesis that exposure to cement dust may increase the risk of lung cancer.

[153] While the studies referred to the increased risk of workers involved in the manufacturing of cement in the cement industry developing lung cancer, this was in the context of determining whether exposure to cement dust can in fact cause lung cancer.

They were, therefore, properly considered by the judge in determining the question of causation.

[154] The question then is whether these studies were applicable to Mr Hennie's circumstances. The judge, at paragraph [108] of her judgment, expressly acknowledged the difference between the circumstances examined in the majority of the studies on which Dr Dingle Spence relied, in that they related to workers in the cement producing industry. She noted that those circumstances were "not exactly like Mr. Hennie's circumstances".

[155] Mr Hennie did not smoke. 90% of lung cancers are tobacco-related with the remaining 10% caused by occupational hazards. While it is correct that Mr Hennie was not working in a cement factory, there was a factual base outlined in the case, and accepted by the judge, that he was exposed to cement dust at high levels while carrying out cleaning tasks for a number of years. In addition, it was also alleged, and later accepted by the judge, that Mr Hennie was exposed to fumes from wet concrete. The judge had also found that the appellant had not made any satisfactory attempt to provide a safe system of work or the adequate provision of safety gear or dust masks.

[156] One of the studies on which Dr Dingle Spence relied related to masons who were working with an aerosol of concrete. Dr Dingle Spence opined that cement retarders, superplasticizers and silica, elements of wet concrete, can cause bronchoalveolar cancer. Dr Scott agreed that retarders are from a family of compounds that could be potentially cancer forming, but there was no "clear data demonstrating

epidemiologically" that workers exposed to them have an increased risk of cancer. He had acknowledged that they are considered to be cancer-causing in animals and "potentially cancer-causing in humans" but there was "no strong conclusive evidence". Dr Scott had also stated that cement dust and wet cement, in general, can be an irritant for the lungs. He felt, however, that epidemiological data had not, to date, demonstrated that workers in the cement industry had a significantly increased incidence of lung cancer.

[157] Based on the principles highlighted in **Elvicta Wood Engineering Ltd and James Neal Services Ltd v Huxley**, the judge in the instant case was required to decide whether, on the material presented to her, on a balance of probabilities, the cause of Mr Hennie's lung cancer was his exposure to cement dust and fumes from the wet concrete mixture. There was no need for medical certainty or what the appellant termed 'conclusive evidence' or 'scientific consensus'.

[158] On the basis of the evidence before her, the judge was entitled to find that Dr Dingle Spence had greater experience diagnosing the cause of cancer and its treatment and that she had clinical experience that was "crucial". She also correctly noted that Dr Dingle Spence exhibited the various studies on which she relied. Dr Scott relied on only one article. It has not escaped my notice that the article on which Dr Scott relied, the 1991 Vestbo article, turned out to be the oldest article before the court. All of the articles on which Dr Dingle Spence relied were of more recent provenance. The judge

gave adequate reasons as to why she preferred the evidence of Dr Dingle Spence over that of Dr Scott.

[159] Contrary to the appellant's submissions, the causal link between cement dust and lung cancer cannot be properly described as 'very tenuous.' The judge relied on the medical evidence, the medical studies and the relevant facts to establish that, on a balance of probabilities, but for the appellant's breach of duty, Mr Hennie would not have contracted lung cancer.

[160] Bearing in mind the facts before the court, the medical studies and the expert evidence, the judge was entitled to conclude that, on a balance of probabilities, it was Mr Hennie's excessive exposure to cement dust and the fumes from wet concrete that led to his developing lung cancer.

Ground 7 – Was it foreseeable that Mr Hennie could contract lung cancer as a consequence of the appellant's breach of duty?

Appellant's submissions

[161] Queen's Counsel for the appellant, relying on the test for foreseeability outlined in **Wagon Mound No 1** [1961] AC 385, submitted that the appellant could not be reasonably expected to take steps to guard against a danger which remained uncertain and unforeseeable. According to the studies relied on by Dr Dingle Spence, it was cases of high exposure to cement, such as packing and crushing of cement that revealed any high risk of cancer. However, this was not the situation in the instant case, as the appellant was in the business of wet concrete and not the production of cement.

[162] Queen's Counsel also argued that there is no evidence of any hazard posed by the substances used in making wet concrete that would have put the appellant on notice that Mr Hennie would be at risk of contracting lung cancer. Queen's Counsel emphasized that the safety data and information sheet for the products used, classified these products as non-hazardous, and this important fact was not considered by Dr Dingle Spence in arriving at her conclusions. Consequently, the illness sustained by Mr Hennie was not reasonably foreseeable.

Respondent's submissions

[163] Counsel referred to **Leighton McKnight and Another v Jamaica Mortgage Bank** [2012] JMCA Civ 44, paragraph 32, in which the court outlined the test of foreseeability. The test to be satisfied by Mr Hennie was that the appellant appreciated in a general way that the injury or illness which he suffered could happen, in other words, it would have been likely if there was breach of duty (see **Hughes v Lord Advocate** [1963] UKHL 8, page 1, per Lord Reid). Accordingly, the appellant need not appreciate the precise injury which occurred once it contemplated injury of a general type (see **Jolley v Sutton London Borough Council** [2000] UKHL 31, per Lord Hoffmann).

[164] She submitted that the various studies and articles highlighted in the hearing supported the finding that the components in the wet cement were carcinogenic. Therefore, the judge did not err in finding that Mr Hennie's illness was foreseeable as a result of a breach of duty by the appellant.

Discussion

[165] In **Hughes v Lord Advocate** Lord Reid addressed the test for foreseeability when he stated:

> "I agree with him that this appeal should be allowed and I shall only add some general observations. I am satisfied that the Post Office workmen were in fault in leaving this open manhole unattended and it is clear that if they had done as they ought to have done this accident would not have happened. It cannot be said that they owed no duty to the appellant. But it has been held that the appellant cannot recover damages.
>
> **It was argued that the appellant cannot recover because the damage which he suffered was of a kind which was not foreseeable**. That was not the ground of judgment of the First Division or of the Lord Ordinary and the facts proved do not, in my judgment, support that argument. **The appellant's injuries were mainly caused by burns, and it cannot be said that injuries from burns were unforeseeable**. As a warning to traffic the workmen had set lighted red lamps round the tent which covered the manhole, and if boys did enter the dark tent it was very likely that they would take one of these lamps with them. If the lamp fell and broke it was not at all unlikely that the boy would be burned and the burns might well be serious. **No doubt it was not to be expected that the injuries would be as serious as those which the appellant in fact sustained. But a defender is liable, although the damage may be a good deal greater in extent than was foreseeable. He can only escape liability if the damage can be regarded as differing in kind from what was foreseeable.**
>
> So we have (first) a duty owed by the workmen, (secondly) the fact that if they had done as they ought to have done there would have been no accident, and (thirdly) the fact that the injuries suffered by the appellant, though perhaps different in degree, did not differ in kind from injuries which might have resulted from an accident of a foreseeable nature." (Emphasis supplied).

[166] In **Leighton McKnight and anor v Jamaica Mortgage Bank** Harris JA wrote the judgment of the court, with which Panton P and Phillips JA agreed. On the issue of foreseeability Harris JA stated at paragraphs [32] and [33]:

> "It is a settled principle of law that in ascribing culpability to a defendant for a wrongful act, the test of the extent of liability is reasonable foreseeability-see **Overseas Tankship (U.K.) v Morts Dock and Engineering Co (The Wagon Mound**) …Since **The Wagon Mound,** there have been a plethora of cases which establish that in order to recover damages for a wrongful act, it must be shown that such damage was either reasonably foreseeable or ought reasonably to have been foreseeable. Foreseeability is the essential test. What is reasonably foreseeable is dependent upon the actual or implied knowledge of the parties, or that of the party who commits the breach…
>
> It must be shown that, a defendant, as a reasonable man, foresaw or could have foreseen the acts resulting in a claimant sustaining damage. There must be evidence of a direct or indirect connection between the damage of which the claimant complains and the act of the defendant to satisfy the court's evaluation of the mischief of which the complainant complains. It must be established that any damage sustained was reasonably foreseeable or could have been reasonably foreseeable by the defendant. The complaint as to the damages suffered must not be remote."

[167] In the instant case the judge found that the risk or danger of some resulting adverse effect to Mr Hennie was not far-fetched or fanciful, as the appellant knew that dust and fumes would be a likely result of its production process and business operations. This led to its acknowledgment that it was under a duty to provide dust masks for its employees to wear as protection from dust and fumes. Cement dust was, even by Dr Scott on whose expertise the appellant had urged the court to rely, known to be an irritant which could cause respiratory conditions. Lung cancer is a respiratory

condition, though perhaps different in degree from the usual respiratory health challenges that the majority of persons would experience.

[168] In light of the facts before her, and the relevant principles of law on the issue of foreseeability, the judge was entitled to conclude that it was foreseeable that Mr Hennie was exposed to risk of injury in aspects of the operations of the appellant's production of pre-mixed concrete.

Conclusion on the issues relating to liability

[169] The judge neither erred in preferring the evidence of Dr Dingle Spence over that of Dr Scott nor in her understanding of the medical studies on which Dr Dingle Spence relied. In addition, the judge adequately considered whether the medical studies were applicable to Mr Hennie's circumstances. Her conclusions on causation and foreseeability of damage were supported by the evidence and the relevant law. In the final analysis, the findings of the judge were supported by the evidence as a whole, and it is clear that she made use of the benefit of having seen and heard the witnesses. I am also not convinced that the judge erred in her application of the relevant legal principles to the facts before her. The grounds of appeal challenging the findings on liability, therefore fail.

The challenge to the award for pain and suffering and loss of amenities

Grounds of appeal

> "8. The learned judge erred as a matter of law in relying on the case **Henegham (Son and Administrator in the Estate of James Leo Henegham, (Respondent) v Manchester Dry Docks Ltd and**

<u>others</u> as an appropriate and reasonable guide to assessing the award of damages for pain and suffering and loss of amenities;

10. The award for pain and suffering and loss of amenities is inordinately high and inconsistent with other awards made in comparable authorities.

11. In making the award for damages for pain and suffering and loss of amenities the learned judge erred in failing to discount the award of damages in the **Henegham** authority, it being an authority from the United Kingdom."

The judge's award of damages for pain and suffering and loss of amenities

[170] The judge stated, at paragraph [135] of her reasons, that she considered a number of factors, including Mr Hennie's age, the nature of the injury, the severity and duration of the resulting physical disability, pain and suffering endured, emotional suffering, impairment of physical abilities and the extent to which his pecuniary prospects were affected. The judge noted that Mr Hennie's illness was terminal and at an advanced stage.

[171] The medical reports tendered for Mr Hennie simply stated that he was suffering from lung cancer.

[172] Of all the cases to which the judge was referred, she found **Henegham (son and administrator of the estate of James Leo Henegham, Deceased) v Manchester Dry Docks Ltd and Others** [2014] EWCA 4190, the most appropriate. In that matter the defendants' former employee had succumbed to adenocarcinoma of the lungs which was contracted during the course of employment. The judge in the instant matter, in referring to **Henegham (son and administrator of the estate of**

James Leo Henegham, Deceased) v Manchester Dry Docks Ltd and Others, stated that the sum awarded, which took into account the fact that the employee was a smoker, was £175,000.00. The judge agreed with the submission made by Mr. Hennie's counsel that, since Mr Hennie was not a smoker, there should be an upward adjustment in any award made to him. The sum of £175,000.00, when converted at an exchange rate of J$172.12 to £1, came to J$30,121,000.00. At paragraph [139] of her reasons, the judge stated:

> "Of the precedents submitted by counsel on both sides; I find **Henegham** is most appropriate because it is most closely analogous to Mr. Hennie's circumstances. Counsel Mr. Jones has however urged that the discounts recommended in **Winston Barr** ought not to be applied and I should instead adopt the approach taken in the latter decision of **Linden Palmer v Neville Walker & Micheal St. John**; Suit No. 1990 P 072. I hasten to point out that both are Court of Appeal decisions and in the latter case of **Linden** the Court would have considered its previous decision but refused to follow it. I am persuaded by Mr. Jones' argument that there is no evidence in the instant case which would justify this Court to take the **Winston Barr** approach in discounting the award before converting it to Jamaican currency."

[173] The original award that the judge made for pain and suffering and loss of amenities was $30,000,000.00 with interest at the rate of 3% per annum from 6 January 2013 until 12 September 2016. In light of the fact that Mr Hennie had passed away before the award was made, the judge allowed the parties to make further submissions as to the impact this should have on the award of damages.

[174] The judge agreed with the submission made by the appellant's counsel that Mr Hennie's death had caused a material change of circumstances, which also merited an

adjustment of the award made for pain and suffering and loss of amenities. Noting that the award of general damages had been made on the premise that Mr Hennie would have survived five more years after his diagnosis, but that he unfortunately died four years after, the judge stated that Mr Hennie had been released from the further pain and suffering which he would have endured had he continued to live. Since his life span had been shortened by approximately one-fifth, the judge saw it as appropriate to adjust downwards the award for pain and suffering and loss of amenities by a similar percentage.

[175] The final award for pain and suffering and loss of amenities was $24,000,000.00 with interest at a rate of 3% per annum from 6 January 2013 until 27 January 2017.

Submissions on the issue of damages

The appellants

[176] Mrs Mayhew made the submissions on this aspect of the appeal. Counsel referred to **Desmond Walters v Carlene Mitchell** (1992) 29 JLR 173, in which Wolfe JA endorsed the dicta of the Court of Appeal in England in **Flint v Lovell** [1935] 1 KB 354 at 355, that before this court will reverse the award of damages, it must be convinced that the trial judge acted on a wrong principle of law, or that the award of damages was so very high or very low so as to be an erroneous estimate of the damages to which the plaintiff was entitled.

[177] Counsel submitted that the facts in **Henegham (son and administrator of the estate of James Leo Henegham, Deceased) v Manchester Dry Docks Ltd**

and Others were not similar to those before the court. It was a claim brought pursuant to the Law Reform (Miscellaneous Provisions) Act 1934 (LRMPA) and the Fatal Accidents Act. Liability had been admitted by the defendants and judgment entered against them with the sole issue for determination being how the damages would be apportioned among the six defendants. The award of £175,000.00 was a composite of the entire award which, in all likelihood, comprised general and special damages and other sums of which the judge in the instant case was unaware. At paragraph 84 of the judgment the court had also limited the plaintiff's recovery to £61,600.00. The judge, therefore, erred in using the award made in that case as a guide to assessing the damages to which Mr. Hennie was entitled.

[178] The judge erred further, according to counsel, when, having relied on a decision from outside of the jurisdiction, she refused to make an adjustment to the award in **Henegham (son and administrator of the estate of James Leo Henegham, Deceased) v Manchester Dry Docks Ltd and Others** to account for the differences in economic and social conditions in the United Kingdom and Jamaica. This was contrary to the decision of this court in **Jamaica Public Service Company Limited v Winston Barr, Bryan Engineering** 25 JLR 326. The judge also misinterpreted the case of **Linden Palmer v Neville Walker & Michael St John**, referring to that case as an appeal decision, and claiming that the judge in that matter had not accepted that there should be a scaling down of awards from foreign jurisdictions.

[179] Counsel submitted that the award for pain and suffering and loss of amenities was inordinately high and inconsistent with other awards made in comparable authorities. Counsel acknowledged that the parties were unable to unearth any local awards in which the nature and extent of the injuries or the disease suffered were similar to Mr Hennie's case. She however referred to **Allan Leith v Jamaica Citrus Growers Limited**, (unreported) Supreme Court, Jamaica, Claim No 2009 HCV 00664 judgment delivered July 23, 2010, **Radcliff Taylor v Jamaica Customs and Ors** [2014] JMSC Civ 49 and the United Kingdom Judicial College Guidelines for the Assessment of General Damages in Personal Injury (15th edition) ("The Guidelines") for assistance. The Guidelines indicated a range of £51,500.00 to £71,500.00 for damages for lung-related injuries including lung cancer. Counsel accepted that, in light of the severity of Mr Hennie's injuries, his case would fall at the higher end of the range, and stated that no discount would apply for the immediacy of payment since Mr. Hennie had passed away. These sums, when converted to Jamaican dollars at the time of trial, would have yielded a range of J$8,900,000.00 to J$12,350,000.00.

[180] Counsel referred to the Trinidadian case of **Robert Daisley v Yara Trinidad Limited**, Claim No CV2012-01440 High Court of Justice of Trinidad and Tobago, judgment delivered 30 July 2015, in which a claimant had contracted two cancers. The claimant was awarded TT$1,000,000.00 which, at the time of trial in this matter, would have converted to J$19,000,000.00. She however argued that that case was distinguishable as Mr Daisley's symptoms were more severe than those suffered by Mr Hennie.

[181] In concluding, Mrs Mayhew submitted that the award for pain and suffering and loss of amenities should be reduced to $10,000,000.00 in light of all of the above authorities and considerations.

The respondent

[182] Counsel for the respondent submitted that the judge was entitled to have regard to the damages awarded in **Henegham (son and administrator of the estate of James Leo Henegham, Deceased) v Manchester Dry Docks Ltd and Others** in light of the fact that there was no similar case in our jurisdiction. Furthermore, it was a matter within the judge's discretion to determine whether to discount the award made in that case. She relied on **Scott v Attorney General and Another** [2017] UKPC 15. Counsel undertook a detailed comparison of the injuries of Mr Hennie, in contrast with those in the **Allan Leith** and **Radcliff Taylor** cases to which the appellant had referred, with a view to highlighting the similarities and differences in the injuries. She urged that there would not be any basis to discount the award made in the **Radcliff Taylor** matter and the injuries suffered in the **Allan Leith** matter were less severe than those suffered by Mr Hennie.

[183] Counsel noted that Mr Hennie had been assessed as having been 70% permanently disabled. She urged the court to rely on **Anthony Wright v Lucient Brown** Suit No CL 1997 W 184 decided 3 March 2000, reported at **Recent Personal Injury Awards made in the Supreme Court of Judicature of Jamaica** Volume 5 compiled by Ursula Khan at page 201, where a claimant was assessed as 70% disabled, having suffered gunshot injuries which left him without fecal or urinary control,

impotent, confined to a wheelchair and unable to move or feel his limbs. She submitted that, while Mr Hennie's injuries were different, the impact on his life was the same as that suffered by the claimant in the **Anthony Wright** matter. The $8,000,000.00 award made in that matter would have amounted to an updated figure of $34,400,000.00 at the date of trial. Consequently, the judge's award to Mr Hennie was not excessive.

[184] In so far as the question of applying a discount to awards of damages from different jurisdictions is concerned, counsel submitted that a judge is not required to make a downward adjustment without more, simply because the decision emanates from a jurisdiction whose socio-economic circumstances differ from Jamaica. While **Jamaica Public Service Company Limited v Winston Barr, Bryan Engineering** has been relied on as a basis that awards from jurisdictions such as England should be discounted, the Privy Council, in **Scott v Attorney General**, has frowned on this being done in the absence of "actual evidence".

Submissions on Loss of expectation of life

[185] In a reply on damages, counsel for the appellant acknowledged that this case would have been appropriate for an award for loss of expectation of life, given that Mr Hennie's life was shortened due to his cancer diagnosis. She submitted that an award of $200,000.00 would be appropriate. She referred to **Attorney General of Jamaica v Devon Bryan (Administrator of Estate Ian Bryan)** [2013] JMCA Civ 3, in which, on appeal, this court reduced an award of $250,000.00 made by the trial judge for loss of expectation of life, to $120,000.00.

[186] In **Brenda Hill and Administrator-General for Jamaica v Attorney General** [2014] JMSC Civ 214, a first instance decision, the court awarded $150,000.00 for loss of expectation of life. In **Noel Mais and Alana Mais (Administrator in the Estate of Khajeeh Dushawn Mais also known as Khajeel Mais, deceased) v Patrick Powell** [2017] JMSC Civ 155, again, at first instance, the court awarded $206,000.00 for loss of expectation of life.

[187] Counsel for the respondent, while agreeing that an award of $200,000.00 would have been appropriate under the heading of loss of expectation of life, submitted that the judge had already taken such an element into account in her award of $24,000,000.00.

Discussion

[188] The principles by which this court is guided, when considering an appeal in respect of the quantum of damages, are not in dispute. In **Desmond Walters v Carlene Mitchell** (1992) 28 JLR 173, Wolfe JA (Ag)(as he was then), in delivering the decision of the court, stated:

> "An appellate court, notwithstanding that an appeal from a judge trying a case without a jury is a rehearing by the Court of Appeal with regard to all the questions involved in the action including the question what damages ought to be awarded, will be disinclined to reverse the finding of a trial judge as to the amount of damages merely because the judges of appeal think that if they had tried the case in the first instance they would have given a lesser sum. **In order to justify reversing the trial judge on the question of the amount of damages it will generally be necessary that the Court of Appeal should be convinced either that the trial judge acted upon some wrong principle**

> **of law, or that the amount awarded was so extremely high or so very small as to make it, in the judgment of the Court, an entirely erroneous estimate of the damage to which the plaintiff is entitled**." (Emphasis supplied)

[189] I will therefore consider the grounds of appeal in light of the above principle.

[190] Although counsel for the respondent was valiant in her attempt to justify the judge's reliance on **Henegham (Son and Administrator in the Estate of James Leo Henegham, (Respondent) v Manchester Dry Docks Ltd and others**, in my view, it is demonstrably clear that the judge erred in relying on the case. In the main, I agree with the submissions made by counsel for the appellant. The award in **Henegham,** separate and apart from issues which will be further explored as to how to treat with cases from a different jurisdiction, according to counsel for the appellant, was the result of a claim made on behalf of the estate of the deceased, and on behalf of his widow, against six former employers alleging exposure to asbestos in breach of duty. It was further alleged that the asbestos to which each of the defendants exposed him, caused his lung cancer. Judgment was entered by consent against all of the defendants. The consent order indicated that there was an issue as to "whether each defendant is liable for damages in full or for only a portion of the damages". It was accepted that if the claimant's case on causation was correct he was entitled to £175,000.00, but if the defendants' case on the issue was correct, the recoverable damages were £61,600.00 on the basis of the 'Fairchild' exception. The 'Fairchild exception' enables a court to, if more than one defendant increased the risk that a plaintiff would contract a disease,

award damages against each defendant in proportion to the increase in risk for which it was responsible.

[191] While there were six defendants before the court in **Henegham**, there were earlier employers who had not been sued. The total exposure for which the six defendants were responsible was 35.2%. The damages in full would have been £175,000.00, but 35.2% of it would have amounted to £61,600.00. The judge at first instance accepted the submissions of the defendants and awarded the claimant £61,600.00. This was upheld on appeal.

Since in the instant claim there was only one defendant before the court, had it been appropriate to rely on the damages awarded in **Henegham**, the judge would have been correct to have relied on the amount of £175,000.00.

[192] It was not, however, appropriate for the judge to have done so. The award was arrived at by the consent of the parties in the claim. There was no breakdown of its elements, and no discussion in the judgment as to how it was arrived at. While the appellant submitted that the case was a claim brought pursuant to the Law Reform (Miscellaneous Provisions) Act and the Fatal Accidents Act of the United Kingdom, this was not verifiable from the reports available to this court. If it were in fact such a claim, the award arrived at by consent could also have included, for example, awards for the dependants of the deceased. This was potentially another basis on which it would have been inappropriate to rely on the award.

[193] In any event, in light of the nature of the award, it is clear that the judge in the instant case erred in relying on the judgment.

[194] This ground of appeal therefore succeeds.

[195] In light of the link with ground 11, it is convenient to address it before proceeding to ground 10. The question is: In the event that the personal injury award made in the **Henegham** case from the United Kingdom was an appropriate precedent, would the judge have been required to discount it?

[196] The question as to how to treat with personal injury awards made by courts in other jurisdictions has not been fully explored in our jurisdiction. Bearing in mind the outcome of the previous ground of appeal, it may not be necessary to do so in a very detailed manner in this case. Nevertheless, in light of the importance of the issue, I will address it to some extent.

[197] In **Jamaica Public Service Co Ltd v Winston Barr, Bryad Engineering Co Ltd and Others**, Winston Barr brought an action against Bryad and Jamaica Public Service Co Ltd ("JPS Co Ltd") claiming damages for injuries he sustained through electrocution, when the steel bars he was fitting to a house under construction by Bryad came into contact with the power lines of JPS Co Ltd. The trial judge gave judgment for the plaintiff and apportioned liability in the ratio of 40% to Bryad and 60% to JPS Co Ltd and found in favour of third parties. Both JPS Co Ltd and Bryad were dissatisfied with the judgment, and appealed challenging, among other things, the finding of

liability and its apportionment. Importantly, for the purposes of this appeal, Winston Barr, by a respondent's notice, sought an increase in the damages awarded.

[198] Mr Barr, a 24 year old, had suffered severe electrical burns and had lost both arms at the shoulders due to amputations. At first instance, the judge had indicated that, even with the industry of counsel, they had not been able to cite even one case from Jamaica which dealt with the total loss of arms. The judge had therefore sought guidance from two English cases, chose the case in which an award of £14,000.00 had been awarded as the better guide, and arrived at a figure of £115,000.00 as being the 1985 value of the £14,000.00 which had been awarded in 1952. Although the judge said that £115,000.00 would have been a reasonable award for the loss of both arms, he nevertheless reduced the amount by 50% for contingencies thus arriving at an award of £57,500.00, which, at J$7.96=£1.00 worked out to $457,700.00. This was further reduced by 1/5 for immediacy of payment.

[199] In this court, it was Wright JA who addressed the thorny issue as to the computation of damages. Having referred to the well-known basis on which this court would review awards of damages made at first instance, he stated at pages 345-346:

> "The assessment is not being assailed as involving the application of any wrong principle of law but on the second ground as being an erroneous estimate of the damage to which the plaintiff is entitled.
>
> The uniqueness of this case referred to by the trial judge is reflected as well in the fact that neither in the West Indies, where the need to achieve uniformity in awards is recognized nor among the English cases has any award in a comparable case been found. The starting figure employed

by the trial judge is not in fact taken from a comparable case but a start must be made and he has not been criticized for choosing that figure. **There is no formula for achieving equiparation between any West Indian currency and the English pound so as to relieve a trial judge of the difficulty attendant upon the use of awards in English cases to making assessments within our region. In *Aziz Ahamad Ltd. v Raghurbar* [1967] 12 W.I.R. 353 at 357, Wooding, C.J., in seeking a grounding for assessing general damages in a case of personal injury rejected the practice of equiparation between the Trinidad dollar and the English pound, then said:**

> 'Nevertheless, it is right that I should add that such uniformity as may be practicable should conform with current trends here and not elsewhere. As Lord Morris of Borth-Y-Gest, speaking for the Privy Council, said in Singh (Infant) v Toong Fong Omnibus Co. Ltd. (1964) 3 All E.R. 925 at 927:
>
> 'to the extent to which regard should be had to the range of awards in other cases which are comparable, such cases should as a rule be those which have been determined in the same jurisdiction or in a neighbouring locality where similar social economic and industrial conditions exist'.'

But I think that where justice demands, as I think it demands in this case, where the required guide cannot be found in awards in the same jurisdiction or in a neighbouring locality then recourse should be made to such source as will aid the Court in coming to a just and fair conclusion. Hence the justification for employing as a guide the figure used by the trial judge in the instant case.

What does present great difficulty in this case is the obvious shift by the trial judge away from his finding that £115,000 would be a reasonable award to the plaintiff by proceeding to discount it by 50%. A discounting by 50% followed by another discount of 20% in circumstances where the loss of future earnings is also discounted with reference to his working life put at 16 years does pose a problem concerning the estimate as to what is adequate compensation for the

> devastating injuries suffered by the plaintiff when the relevant factors are taken into account. Does not a 50% discount for contingencies in the circumstances seem so inordinate as to justify the interference of this Court? I think so.
>
> **Accepting the trial judge's starting figure of £115,000 and bearing in mind the difference in the English and Jamaican economies, I would scale that down by 30% for contingencies** thus producing $640,780. It is recognized practice that there is a discounting for immediacy of payment. Accordingly, I would make the final figure $550,000." (Emphasis supplied)

[200] It will be immediately obvious that both the judge at first instance, and Wright JA in this court, were seeking a solution to a very difficult scenario, and, in arriving at their decisions as to discounts to the personal injury award made in England, were unable to identify any general principle leading to the level of discount which was applied to the English case which had been used as a guide.

[201] In **Scott v Attorney General and another** the appellant appealed to the Privy Council on the basis that the Bahamas Court of Appeal had failed to address an argument that had been made in respect of a general damages award, that an uplift should have been allowed on the figure suggested by the English Judicial Studies Board guidelines for the assessment of personal injury cases in England and Wales. Lord Kerr in delivering the judgment of the court stated:

> "25. The Bahamas must likewise be responsive to the enhanced expectations of its citizens as economic conditions, cultural values and societal standards in that country change. Guidelines from England may form part of the backdrop to the examination of how those changes can be accommodated but they cannot, of themselves, provide the

complete answer. What those guidelines can provide, of course, is an insight into the relationship between, and the comparative levels of compensation appropriate to different types of injury. Subject to that local courts remain best placed to judge how changes in society can be properly catered for. Guidelines from different jurisdictions can provide insight but they cannot substitute for the Bahamian courts' own estimation of what levels of compensation are appropriate for their own jurisdiction. It need hardly be said, therefore, that a slavish adherence to the JSB guidelines, without regard to the requirements of Bahamian society, is not appropriate. But this does not mean that coincidence between awards made in England and Wales and those made in the Bahamas must necessarily be condemned. If the JSB guidelines are found to be consonant with the reasonable requirements and expectations of Bahamians, so be it. In such circumstances, there would be no question of the English JSB guidelines imposing an alien standard on awards in the Bahamas. On the contrary, an award of damages on that basis which happened to be in line with English guidelines would do no more than reflect the alignment of the aspirations and demands of both countries at the time that awards were made for specific types of injury.

26. Cost of living indices are not a reliable means of comparing the two jurisdictions even if one is attempting to achieve approximate parity of value in both. Cost of living varies geographically and may well do so between various sectors of the population. The incidence of tax, social benefits and health provision (among others) would be relevant to such a comparison.

27. It is perhaps unfortunate that the Court of Appeal did not address the argument that the proper way to determine compensation for general damages was to fix the basic rate by reference to the JSB guidelines and apply a notional uplift. The lack of reference to that argument in the judgment should not be taken as an indication that it was not considered, however. It must be assumed that the Court of Appeal decided that this was not how general damages should be assessed, since, although the English JSB guidelines were followed, no uplift was applied.

> 28. It is likewise not to be assumed that the Court of Appeal decided that it need only apply the JSB guidelines to arrive at the appropriate amount, without regard to local economic conditions and the expectations of citizens of the Bahamas. As has been observed at para 25 above, if JSB guidelines happen to coincide with what is regarded as appropriate for the Bahamas, there is no reason that they should not be adopted. And the Board should be properly reticent about interfering with the Court of Appeal's assessment unless satisfied that a wrong principle of law was applied or that the award was so inordinately small or exceedingly great that it was plainly wrong. As the Board said in *Nance v British Columbia Electric Railway Co Ltd* [1951] AC 601, 613:
>
> > '… before the appellate court can properly intervene, it must be satisfied either that the judge, in assessing the damages, applied a wrong principle of law (as by taking into account some irrelevant factor or leaving out of account some relevant one); or, short of this, that the amount awarded is either so inordinately low or so inordinately high that it must be a wholly erroneous estimate of the damage (*Flint v Lovell* [1935 1 KB 354]), approved by the House of Lords in *Davies v Powell Duffryn Associated Collieries, Ltd* [1942 AC 601].'
>
> 29. The Board is not in a position to say that the choice of the Court of Appeal to order that general damages should be in line with the JSB guidelines involved the application of a wrong principle of law or resulted in an inordinately low award. As has been said (at para 25 above), this is primarily a matter for Bahamian courts, familiar with local conditions and the hopes and aspirations of the society which they serve."

[202] The Privy Council deferred to the Bahamas Court of Appeal on the question as to whether the JSB guidelines were appropriate for use in the Bahamas in light of the local economic conditions and the expectation of its citizens. It is noteworthy that their Lordships expressly stated that cost of living indices were not a reliable means of

comparing the two jurisdictions. Here in Jamaica the disparity between our local conditions and those in England and Wales speak for themselves.

[203] While counsel for the appellant has referred to the Judicial College Guidelines for Assessment of Personal Injury, 15th edition, I think it is best that we avoid appearing to rely on it here in Jamaica. In its introduction, the authors state:

> "The Guidelines remain a distillation of awards of damages that have been and are being, made in the courts. We are all keenly aware that no financial award can compensate in any real sense for physical or mental pain and suffering.
>
> However, one of the objectives of the Guidelines is to achieve consistency in awards for general damages made by the courts recognizing that it is a book of guidelines and not tramlines and that the assessment of the appropriate level of any award remains the prerogative of the courts.
>
> Since 2017 when the Guidelines were last revised, inflation has continued its slow upward path. The figures in this volume have been adjusted to reflect the general increase in RPI of 7% over the period from May 2017 to June 2019 and have been rounded up or down to provide realistic and practical brackets."

[204] In England, the Retail Price Index (RPI) measures the change in the price of goods and services purchased for the purpose of consumption. It follows that, were we to adopt a trend of utilizing these guidelines, we would be taking into account the general awards made in England, and would find ourselves taking into account their treatment of inflation in their country, in so far as it impacts personal injury awards. This is clearly undesirable.

[205] It stands to reason that, even if it was appropriate for the judge to have relied on **Henegham**, and I have already indicated above that it was not, as challenging as it would have been, in light of the different economic social and industrial circumstances between Jamaica and England, some level of discount would have had to be applied to the award which had been made in that case. As to what that discount would have needed to be, I will not speculate in light of all the considerations outlined above.

[206] The 30% discount applied in **Jamaica Public Service Co Ltd v Winston Barr, Bryad Engineering Co Ltd and Others** was a case of the court doing its best in difficult circumstances. The reasoning of the judges in the case does not reveal the basis on which 30% was seen as appropriate. As a result, it is difficult for this percentage to be perpetuated without more.

[207] In passing, while I will not review in detail the case of **Linden Palmer v Neville Walker and Michael St John**, to which the judge referred as a Court of Appeal decision in support of her decision to not discount the **Henegham** award, it is clear that this was a first instance decision of W A James, J. The judge was therefore in error as to the level of the court from which the decision emanated.

[208] The reference to English awards is even more challenging at this time in light of the large difference in the value of the pound as against the Jamaican dollar. In January 2017, the judge at first instance in the matter at Bar referred to an exchange rate of J$172.12 to £1.00. According to the Bank of Jamaica website, the average exchange rate for the pound sterling in December 2020 was J$193.18 to £1.00. As

Wright JA opined, and with which I agree, there is no formula for achieving equiparation in these circumstances. The social economic and industrial conditions in England are vastly different from those in Jamaica. It is therefore best that in seeking to arrive at awards in personal injury cases, we refer to awards made in jurisdictions which are more similar in their conditions.

[209] It cannot be overlooked, however, that from time to time, circumstances will occur when we are unable to locate comparable cases in jurisdictions with which we share similar social economic and industrial conditions. In such instances, one possible approach is to identify a local case with some similarity, even though it may be less or more severe, and seek to increase or decrease that award to an extent which the court feels will be its best estimate as to an appropriate award, bearing in mind that the award of damages is not an exact science.

[210] Here in Jamaica practitioners have received much assistance from, in particular, the various volumes of Recent Personal Injury Awards made in the Supreme Court of Judicature of Jamaica, published by Ursula Khan. It may be time for us to, after distilling awards which have been made in our courts over the years, produce a similar publication as that of the Guidelines published in England.

[211] It therefore remains for me to address the essential question as to what would be an appropriate award of damages in the instant case.

[212] The question to be determined is whether the judge's award of $24,000,000.00 was inordinately high and inconsistent with other awards made in comparable

authorities. Of course, bearing in mind the fact that no closely comparable authority was identified, it can immediately be seen that some element of judicial discernment will be needed to arrive at an award.

[213] The 20 September 2013 medical report of Dr Dingle Spence (Exhibit 5) is short and, in light of the circumstances in this matter, will be reproduced in full below:

> "As you are aware, Mr. Hennie was diagnosed with bronchioalveolar carcinoma of the lung in January 2012. This was locally advanced at the time of diagnosis. Mr. Hennie was treated with combination chemotherapy and completed the course in June 2012. He responded very well to the treatment, and, to date, is doing well. His energy levels are fair to good, although he does get some shortness of breath on moderate exertion. The natural history of the disease is that a period of remission is likely to be complicated by recurrent or metastatic disease, thereafter requiring further intervention.
>
> With respect to the specific questions asked:-
>
> - Mr. Hennie is likely to need second-line chemotherapy at some point in the future. The drugs recommended are likely to cost about $40,000 per course, and he would need 6 courses.
>
> - He is unlikely to need surgery at any time in the future.
>
> - Mr Hennie should be considered 70% disabled. He could likely manage light office work, but we do not recommend that he returns to being a pump attendant.
>
> - At some point in the future Mr Hennie is likely to require the assistance of a caregiver. His disease is incurable, and although he is well at the present time, it is expected that he will have more health problems in the future, and would eventually succumb to the disease."

[214] Counsel for the respondent, in speaking notes on the issue of damages, examined the medical notes for Mr Hennie and highlighted that at various points in 2011 he experienced pain between the 8th and 9th rib, chest pain and stiffness in the chest, occasional shortness of breath, and cough in 2011 and 2012. In 2012 he experienced, among other things, weight loss, loss of hair, tingling in tips of digits, nausea and vomiting, general weakness and dizziness, urinary symptoms and he eventually had to stop working. It was anticipated that he had five years to live. As was indicated above, he died sometime in or around early September 2016.

[215] In highlighting the doctor's conclusion that Mr Hennie should be considered 70% disabled, counsel for the respondent tried to persuade this court that it was appropriate to rely on **Anthony Wright v Lucient Brown**. In that case, following on gunshot injuries, where bullets passed through the plaintiff's arm and chest and eventually lodged in and damaged the spinal cord, he became a paraplegic with a total permanent disability at 70% of the whole person. He was confined to a wheelchair, had no fecal or urinary control and was impotent. In 2000 he was awarded $8,000,000.00 for general damages which, according to counsel, amounts to $34,400,000.00 when updated to the date of trial.

[216] I do not agree with the respondent's submissions that the severity and the impact on the respective claimants' lives are the same. I agree with the appellant's submissions that the injuries are totally dissimilar and it would be entirely inappropriate

to rely on the **Anthony Wright** precedent to arrive at an award of damages in the instant case.

[217] On the other hand, I have found the cases to which the appellant has referred to be of greater assistance. In **Allan Leith v Jamaica Citrus Growers Limited**, the claimant suffered injury when he inhaled chlorine gas which had escaped from a cylinder. He suffered loss of consciousness, shortness of breath, inability to breathe, elevated blood pressure, stridor, wheezing and life-threatening lung inflammation. He was treated with steroids, and five days later he was wheeze-free. He, however, developed steroid-induced diabetes, which became chronic and for which he had to take medication for the rest of his life. While his lung inflammation was resolved within two months, he continued to experience shortness of breath in the long term. The court awarded $3,600,000.00 for general damages in July 2010, which, according to counsel for the appellant, updated to $5,184,624.92 at the time of the trial. Counsel for the appellant has submitted, and I agree, that although this case does not involve cancer, but involves lung injuries, it is useful with a view to an indication of the type of award that would be expected at the lowest end of the range.

[218] Another useful case to which counsel for the appellant referred is **Radcliff Taylor v Jamaica Customs and Ors** In that case the plaintiff developed chronic myeloid leukemia cancer during his employment. The court awarded $8,500,000.00 in April 2014 for general damages for pain and suffering, which, when updated at the date of trial, amounted to $9,244,147.94. It is of course noteworthy that the judge in that

case had relied on a United Kingdom (UK) case which, when converted, yielded the sum of $7,000,000.00, but which the judge further adjusted upwards in light of the severity of Mr Taylor's injuries. Counsel for the appellant highlighted the fact that the court had not followed the guidance from **Winston Barr** which, in her view, would have entailed a scaling down of the award. Counsel for the appellant, therefore, submitted that the court had followed an erroneous approach, and ought to have reduced the award made in the UK case, before making any upward adjustment. Counsel did contemplate that, since the injuries suffered by Mr Taylor were more serious than that outlined in the case from the UK, there was also the possibility that there was no need for adjustments. She distinguished **Radcliff Taylor** on the basis that the cancer which he had contracted was different from that contracted by Mr Hennie, and the claimants were affected in different ways. While counsel has distinguished the case, it is my view that, in spite of any arguments that may be made concerning whether it ought to have been discounted, unless and until it is set aside on appeal, it has become a part of the landscape here and provides assistance in considering the award to be made in another case involving cancer. On the information available, it is arguable that Mr. Hennie's symptoms and pain and suffering, were at least similar in nature to that of Mr Taylor, or, in fact, could be seen as somewhat worse.

[219] **Robert Daisley v Yara Trinidad Limited**, a case from Trinidad and Tobago, is also helpful since it emanates from a jurisdiction closer to Jamaica in economic and social conditions, than England**.** In that case, the claimant contracted both nasopharyngeal and prostate cancer as a result of occupational exposure. He was

awarded general damages for pain and suffering in the sum of TT$1,000,000.00 which converted to approximately $19,000,000 at the date of trial. In that case Mr Daisley had far more severe injuries and symptoms such as chronic dryness of the eyes, mouth and ears, nasal bleeding, damage of the salivary gland, loss of sex drive, excess mucus production, rotting and loss of teeth and oral pain. At the date of judgment in that matter, the claimant had been suffering from the cancers for seven years. I agree with the views of the appellant that it would be appropriate to adjust the **Daisley** award in light of the fact that it concerned the contracting of two cancers with very severe symptoms. In addition, the claimant in **Daisley** experienced pain and suffering over a longer period.

[220] Bearing in mind all of the above, it seems to me that the appellant's submission that a reasonable award for pain and suffering in the instant matter is $10,000.000.00, ought not to be accepted, as it is somewhat low. Instead, in my view, an appropriate award is $12,000,000.00. The award of $24,000,000.00 made by the judge, based as it was on **Henegham,** and in all the circumstances**,** was inordinately high and should be set aside.

[221] In the result, I propose that the decision of the judge on liability be affirmed but the award made by the judge for pain and suffering and loss of amenities be set aside. An award of $12,000,000.00 should be substituted.

[222] I also agree with the submission made by counsel for the appellant that an award of $200,000.00 would be appropriate in all the circumstances under the heading of the loss of expectation of life.

Costs

[223] In my view, in light of the fact that the appellant has failed on the issue of liability, but has partially succeeded in respect of the issue of the damages awarded, an award of 20% of the appellant's costs of appeal would be appropriate, and it would be appropriate to award the respondent 80% of its costs on the appeal.

SIMMONS JA (AG)

[224] I have read the drafts of my sisters Phillips JA and Foster-Pusey JA and I agree with their reasoning and conclusion.

PHILLIPS JA

ORDER

(i) The appeal is allowed in part.

(ii) The judgment of Georgiana Fraser J (Ag) (as she was then), made on 12 September 2016 and 26 January 2017, is affirmed in respect of liability, special damages and costs.

(iii) The award of general damages in the sum of $24,000,000.00 is set aside and in its stead an award of $12,000,000.00 is substituted with interest at the rate of 3% per annum from 6 January 2013 until 27 January 2017. The sum of $200,000.00 is awarded for loss of expectation of life.

(iv) The appellant is awarded 20% of its costs of the appeal. The respondent is awarded 80% of his costs of the appeal. Such costs to be taxed, if not agreed.