IN THE HIGH COURT OF THE REPUBLIC OF SINGAPORE

[2019] SGHC 05

Magistrate's Appeal No 9030 of 2018

Between

MW Group Pte Ltd

… *Appellant*

And

Public Prosecutor

… *Respondent*

JUDGMENT

[Criminal Law] — [Statutory Offences] — [Workplace Safety and Health Act]
[Criminal Procedure and Sentencing] — [Sentencing] — [Penalties] — [Workplace Safety and Health Act]

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MW Group Pte Ltd
v
Public Prosecutor

[2019] SGHC 05

High Court — Magistrate's Appeal No 9030 of 2018
Chan Seng Onn J
19 October 2018

14 January 2019 Judgment reserved.

Chan Seng Onn J:

Introduction

1 Mr Suyambu Suman ("Suman") was an employee of the appellant company, MW Group Pte Ltd. He tragically met his demise after being electrocuted while conducting high voltage testing and calibration of an Arc Reflection System ("ARS") machine at his employer's workplace. Consequently, the appellant was charged under s 12(1), read with s 20 and punishable under s 50(*b*) of the Workplace Safety and Health Act (Cap 354A, 2009 Rev Ed) ("WSHA") for failing to take reasonably practicable measures to ensure the safety and health of its employees at its workplace.

2 The appellant claimed trial to the charge. It was convicted and sentenced to a fine of $200,000. The grounds of decision of the District Judge below (the "Judge") is reported at *Public Prosecutor v MW Group Pte Ltd* [2018] SGDC

110 (the "GD"). The appellant subsequently appealed against both its conviction and sentence.

3 Having heard the submissions made by the Prosecution and Mr Mark Wheeler ("Wheeler"), the Managing Director and corporate representative of the appellant for these criminal proceedings, I did not think that the Judge had convicted the appellant against the weight of the evidence. Accordingly, I dismissed the appeal against conviction at the hearing of this appeal on 19 October 2018. Therefore, the sole matter remaining for my consideration involves the appellant's appeal against sentence, which forms the subject matter of this reserved judgment.

4 This appeal gives me the opportunity to revisit the existing sentencing benchmarks for offences involving a breach of s 12 of the WSHA. These benchmarks were laid down by See Kee Oon JC (as he then was) in *Public Prosecutor v GS Engineering & Construction Corp* [2017] 3 SLR 682 ("*GS Engineering*") at [70]. Having carefully considered the sentencing benchmarks in *GS Engineering*, I must respectfully disagree in part with See JC's benchmarks. Accordingly, I decline to apply the benchmarks in *GS Engineering* to the present case.

5 As will be elaborated on in further detail below, I have instead formulated a set of revised sentencing benchmarks which are based on the sentencing framework that I had developed in my recent decision in *Nurun Novi Saydur Rahman v Public Prosecutor and another appeal* [2018] SGHC 236 ("*Nurun*"). Applying these revised sentencing benchmarks to the present case, I allow the appellant's appeal against sentence and impose a fine of $160,000 instead.

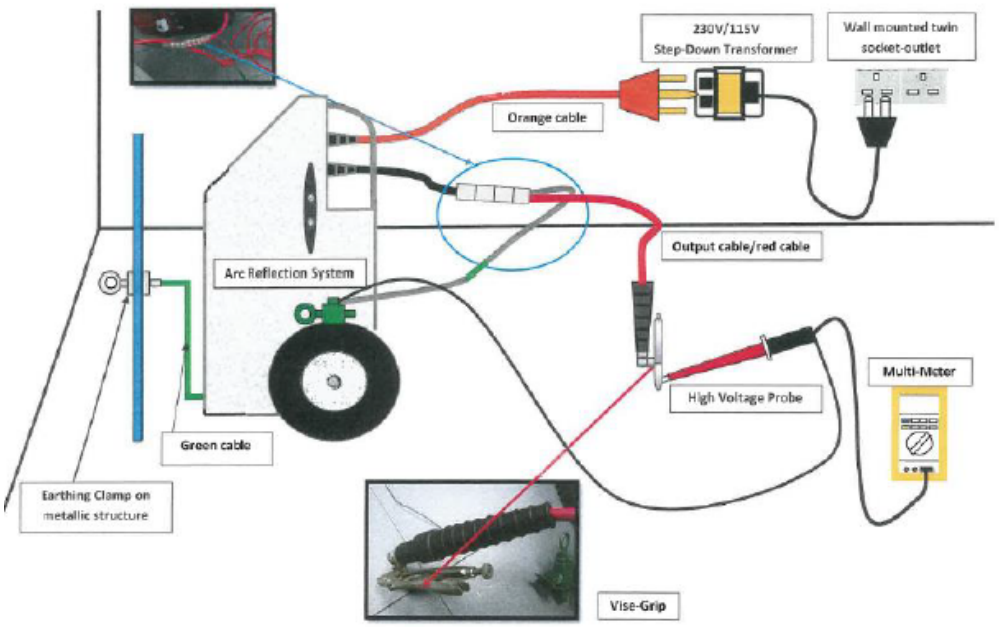
Facts

6 Except for what I have stated at [16], I broadly agree with the Judge's findings of fact which can be found in the GD. Therefore, I shall only reproduce the salient facts which are necessary for an appreciation of the issues relating to sentence in this appeal.

The ARS machine

7 In order to better understand how the fatal accident occurred, I consider it helpful to first describe how the testing and calibration of the ARS machine was to take place.

8 The ARS machine is used for the detection of faults in cables by sending high voltage electrical pulses into the cables. It can rapidly charge up to 1,280 joules at up to 16 kilovolts ("kV"). By way of comparison, the standard voltage used in households in Singapore is 220V. A pictorial representation of the set up for the testing and calibration of the ARS machine is shown below:



9 The person controlling the ARS machine would set the machine to a certain voltage level. Another person would then have to hold the handle of the high voltage probe and touch the tip of the probe to the metallic part at the end of the output cable from the ARS machine. The high voltage probe is in turn connected to a multimeter which will display the voltage measured. The voltage as measured by the multimeter when multiplied by a certain fixed factor, which is a characteristic of the high voltage probe, will provide the value of the voltage actually emanating from the ARS machine. The voltage measurements will then be recorded, and the process is subsequently repeated with the ARS machine set to increasing levels of voltage.

The accident

10 On 7 November 2013, Wheeler instructed Suman to conduct testing and calibration of the ARS machine. In turn, Suman asked three of his colleagues to

assist him, namely Mr Gomathi Nayagam Lakshmi Kanthan ("Lakshmi"), Mr Kuberan Nandhakumar ("Nandha") and Mr Murugesan Senthil ("Senthil").

11 The testing and calibration was conducted inside the laboratory located at 196 Pandan Loop, #02-21, which is the workplace of the appellant. Suman prepared for the testing of the ARS machine by setting up the equipment according to the diagram as shown at [8] above.[1] Suman then instructed Lakshmi to power up the ARS machine and then set the machine to the desired voltage level for testing. He instructed Senthil to record the readings from the multimeter while Nandha was instructed to be on standby. Suman held the handle of the high voltage probe with his left hand, and the output cable from the ARS machine with his right hand. The tip of the high voltage probe was securely attached to a metallic vise grip protruding from the end of the output cable.

12 Suman and his three colleagues then began the testing and calibration of the ARS machine, starting with a voltage level of 2kV and gradually working their way to higher voltage levels. When the voltage of the ARS machine was set to 12kV, Nandha noticed a spark emanating from the metallic vise grip. At this point, Suman fell backwards and became unconscious. He was conveyed to the hospital where he succumbed to his injuries that same day. The certified cause of death was consistent with electrocution.

The appellant's failure to take reasonably practicable measures to ensure the safety of its employees

13 The Judge found that there was a high risk of electrocution in conducting the high voltage testing and calibration, which the appellant's employees were

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1 GD, [33].

all well aware of.[2] Despite this, the appellant had failed to take reasonably practicable measures in order to avert this risk of electrocution.[3]

14 First, there had been no proper risk assessments conducted for the activity of high voltage testing and calibration. When officers from the Ministry of Manpower ("MOM") first visited the appellant's premises on 16 April 2013, the appellant's representative at the time was not able to produce any risk assessment forms for electrical testing within the company. Even the risk assessment conducted by the appellant on 25 April 2013 in response to the visit from the MOM officers was unsatisfactory. That risk assessment form, which was dated 25 April 2013, showed that for the work activity of "calibration", the only risk identified was that of "falling objects" and there was no mention of electrocution. The appellant's employee who had signed off on this risk assessment form admitted to not knowing if the activity referred to on the form was high or low voltage calibration. The MOM officer who inspected the appellant's premises a day after the accident occurred testified that the risk assessment for the calibration works was not established, conducted and implemented.[4] Wheeler conceded that there were no risk assessments conducted for the ARS machine when it arrived at the appellant's workplace on three previous occasions for testing and calibration.[5]

15 Second, the appellant had failed to put in place safe work procedures to ensure that the testing and calibration of the ARS machine was carried out in a safe manner. The appellant could not adduce any evidence of safe work procedures it had developed for the calibration of the ARS machine.[6] An officer

2 GD, [55].

3 GD, [51].

4 GD, [78].

5 GD, [108].

from the Energy Market Authority who conducted an investigation of the workplace after the accident testified that one reasonably practicable measure that could have been taken would be to have proper test fixtures to hold the output cable in place during the calibration process.[7] Without the test fixture, the person operating the probe had to physically hold onto the output cable. This was dangerous because the output cable would be left dangling and could accidentally come into contact with the person holding the cable. Further, a safe working distance would not be maintained between the holder of the probe and the live output cable. Given the high voltages at which the testing was conducted, even the air between the output cable and the person holding it could become a conductor which would enable the current to pass from the output cable and into the person's body, thereby leading to electrocution. Hence, a test fixture was necessary as it could have prevented the output cable from swinging, and would also have allowed the person holding the high voltage probe to maintain a safe distance from the output cable.[8] Up to this point, I agree with the Judge's findings.

16 The Judge also noted that a stand made of steel was actually available, but it was not used during the calibration.[9] The Judge stated that if the appellant had developed a risk assessment for the calibration, "the use of a stand would have been stated as a mitigating factor". I disagree with the Judge that (a) the steel stand that was available in the workshop should be used; and (b) that the use of this stand would have been a mitigating factor to reduce the risk associated with the calibration.

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6 GD, [112].

7 GD, [57].

8 GD, [57] and [58].

9 GD, [96].

17 Wheeler had rightly explained at the hearing that using the steel stand might have made matters worse, given that the entire stand is made of metal and would therefore have been fully charged if the live output cable had been attached to it. I agree with Wheeler that attaching the vise grip to a metal stand would have charged the whole metal stand to the same high voltage as that on the metal vise grip which was attached to the end of the output cable of the ARS machine. Making a much larger exposed metal area (*ie*, the metal stand) charged to a high voltage would cause the work area to be much more dangerous to persons present at the workplace in the vicinity of the large exposed metal area. To increase safety, exposed areas with high voltage should instead be minimised as much as possible and not increased. As a safety measure, employees should therefore be told *not* to use the metal stand available in the work place and *not* to attach the vise grip to any metal stand for any high voltage testing and calibration.

18 In my view, the appellant should have provided a non-electrically conductive stand (*eg*, one made of rubber or some other non-electrically conductive material) to which the vise grip could be attached in order to ensure and facilitate the safe high voltage testing and calibration of the ARS machine. The appellant had failed to provide an essential piece of equipment to its employees to enable them to carry out such high voltage testing and calibration safely. This would have contributed to the appellant's failure to ensure safe work procedures.

19 Ultimately, the Judge rightly concluded that the appellant's failure to ensure that safe work procedures were adopted during the testing and calibration of the ARS machine resulted in Suman being electrocuted which led to his death.

Decision below on sentence

20 The Judge applied the sentencing framework in *GS Engineering* to determine the appropriate starting point sentence based on two principal factors, namely (a) the culpability of the offender and (b) the harm that could potentially have resulted.

21 The Judge found that the potential for harm in the present case was "high", given that death could result from the risk of electrocution and there were no measures taken to mitigate this risk.[10] The Judge found that the culpability of the appellant was "medium", on the basis that the appellant had only conducted a generic risk assessment for "electrical testing" prior to the accident, and did not put in place any safe work procedure for the testing and calibration of the ARS machine.[11] The appellant had allowed its employees to work in a dangerous environment where the occurrence of an accident was imminent. Given that the potential for harm was "high" and the culpability of the appellant was "medium", the Judge found that the starting point sentence should be a fine of around $230,000.[12]

22 The Judge then went on to consider the aggravating and mitigating factors. She found that an aggravating factor was the serious actual harm which resulted in death, and that the breaches were a significant cause of the death that resulted. She also considered that this was the appellant's first offence since they began operations 25 years ago, that there was only one death as compared to two in *GS Engineering*, and that even though the appellant had claimed trial, the trial was not unduly protracted and the appellant had been cooperative in the

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10 GD, [122] and [123].

11 GD, [127].

12 GD, [130].

course of investigations. Balancing the aggravating and mitigating factors, she reduced the fine slightly from the starting point sentence and imposed a fine of $200,000.

The parties' cases on appeal

23 The appellant raises the following grounds in its petition of appeal in respect of its appeal against sentence:

(a) The present case is factually different from *GS Engineering*. *GS Engineering* involved two fatalities whereas the present case only involved one. The offender in *GS Engineering* had "admitted guilt" while the appellant did not because it believed it "acted reasonably and practicably [in] adopting work health and safety ethics". The victims in *GS Engineering* were untrained and unskilled workers whereas Suman, the deceased, in the present case was a "highly qualified" deputy manager.[13]

(b) In the list of nine aggravating factors cited in *GS Engineering* at [77], the appellant has shown the absence of eight of these aggravating factors.[14]

(c) In the list of six mitigating factors cited in *GS Engineering* at [77], the appellant has shown the presence of five of these mitigating factors.[15] The mitigating factors in the appellant's favour are: (i) the appellant had voluntarily taken steps to remedy the problem; (ii) the appellant had provided a high level of cooperation with the authorities

13 Record of Appeal ("ROA"), p 28, para 61.

14 ROA, p 29, para 63.

15 ROA, p 30, para 64.

beyond that which is normally expected; (iii) there was self-reporting, co-operation and acceptance of responsibility; (iv) it had good health and safety records; and (v) it had effective health and safety procedures in place.

(d) Given the absence of aggravating factors and the presence of mitigating factors, the appellant should be in the "low to zero range" in terms of culpability and potential for harm.[16]

24 In response, the Prosecution made the following points:

(a) The appellant is mistaken as to the proper application of the sentencing framework in *GS Engineering*. The culpability and potential harm caused by the offender in the first stage of the inquiry should be assessed separately from the aggravating and mitigating factors.[17]

(b) The Judge had considered all the relevant factors, and was correct to find that the potential for harm was "high" and the culpability of the appellant was "medium".[18]

(c) The Judge was correct to choose a starting point sentence of $230,000, which is on the higher end of the stipulated range as set out in *GS Engineering* at [70], for two reasons. First, the appellant did not even deem it necessary to conduct proper risk assessments and implement a set of safe work procedures, despite knowing that there was a clear risk of electrocution that could lead to death. Second, the breaches committed by the appellant were systemic, which is evidenced

16 ROA, p 31, para 65.

17 Respondent's written submissions ("RWS"), para 98.

18 RWS, paras 108 and 109.

by the lack of proper risk assessments and safe work procedures for prior instances when the ARS machine underwent calibration at the appellant's workplace.[19]

(d) The appellant's claim that it had voluntarily taken steps to remedy the problem should be approached with caution, given that it had not adduced proper evidence to prove that risk assessments were indeed conducted after the accident and specifically in relation to the calibration of the ARS machine.[20]

My decision

25 The structure for my determination of this appeal is as follows: I first consider the existing sentencing benchmarks for offences under s 12(1) of the WSHA as set out in *GS Engineering*, and state the reasons why I disagree with it in part. Thereafter, I set out my revised sentencing benchmarks, and explain the considerations behind the formulation of these benchmarks. Finally, I apply the revised sentencing benchmarks to the facts of the present case to determine if the sentence imposed by the Judge is manifestly excessive.

First stage of the inquiry: determining the indicative starting sentence

26 I would state at the outset that I agree broadly with the two-stage framework adopted by See JC in *GS Engineering*. In the first stage of the inquiry, the sentencing judge determines the indicative starting point sentence based on two factual elements, namely, the potential harm caused by the offence, and the culpability of the offender ("the principal factual elements"). Potential harm, as opposed to actual harm, is used as a determinant of the

19 RWS, paras 111 to 113.

20 RWS, para 129.

indicative starting sentence because s 12(1) of the WSHA criminalises the creation of the risk of harm rather than actual harm (See *GS Engineering* at [65]; *Nurun* at [80]). In the second stage of the inquiry, the sentencing judge calibrates the starting point sentence derived in the first stage based on the presence of any aggravating or mitigating factors. This includes the actual harm that is caused, as will be elaborated on in further detail below. Indeed, I had adopted this same sentencing framework in *Nurun* (at [79]).

27 I set out below a non-exhaustive list of factors that the court can consider in assessing the level of potential harm caused by an offender (*GS Engineering* at [65]; *Nurun* at [86]):

(a) the seriousness of the harm risked;

(b) the likelihood of that harm arising; and

(c) the number of people likely to be exposed to the risk of that harm.

28 These are a non-exhaustive list of factors that the court can consider in assessing the culpability of an offender (*GS Engineering* at [64]; *Nurun* at [87]):

(a) the number of breaches or failures in the case;

(b) the nature of the breaches;

(c) the seriousness of the breaches – whether they were a minor departure from the established procedure or whether they were a complete disregard of the procedures;

(d) whether the breaches were systemic or whether they were part of an isolated incident; and

(e) whether the breaches were intentional, rash or negligent.

Reasons for disagreeing with GS Engineering

29 However, where I must respectfully depart from the decision in *GS Engineering* is in the sentencing benchmarks which have been set out in tabular form (at [70]). For ease of reference, I reproduce the table below:

		Culpability		
		High	Medium	Low
Potential for harm	High	$300,000 to $500,000	$150,000 to $300,000	$100,000 to $150,000
	Medium	$100,000 to $150,000	$80,000 to $100,000	$60,000 to $80,000
	Low	$40,000 to $60,000	$20,000 to $40,000	Up to $20,000

30 As can be seen from the table above, there are "gaps" at certain points in the sentencing benchmarks which lead to a jump in the indicative starting point sentences when one moves from low to medium, and from medium to high potential for harm. This is the same problem that I had alluded to in *Nurun* at [89]. To illustrate, let us take the example of a hypothetical offender whose culpability is fixed at "low". As the potential for harm of this hypothetical offender increases slightly from the top-most end of the "low" category to the bottom-most end of the "medium" category, there is a sudden jump in the starting point fines to be imposed, from $20,000 to $60,000. As the potential for harm further increases slightly from the top-most end of the "medium" range to the bottom-most end of the "high" range, there is another jump from $80,000 to $100,000. In my view, there are two reasons for why there should not be such gaps in the sentencing benchmarks.

31 First, "such a gap arbitrarily restricts the sentencing court from providing certain sentences as [a] starting point." (*Nurun* at [89]). To illustrate, let us assume that we have a hypothetical offender who has low culpability, and between low to medium potential for harm. Based on the sentencing benchmarks in *GS Engineering*, a sentencing judge is precluded from adopting a starting point sentence of anywhere between a $20,000 fine and a $60,000 fine. Therefore, there is a concern that the sentencing range provided by the law is not fully utilised. Indeed, this was a concern that See JC himself had explicitly sought to address in *GS Engineering* (at [58]).

32 Second, such gaps in the sentencing benchmarks are inconsistent with the general principle that sentences should be proportional to the severity of the criminal conduct. Accordingly, an offence which is marginally more severe than a baseline case should attract a marginally higher sentence, and not one that is disproportionately or significantly higher. However, as can be seen from the sentencing benchmarks in *GS Engineering*, there is a significantly large increase in sentence (*ie*, $40,000 fine) even though the potential for harm has increased very slightly (*ie*, from the top-most end of the "low" category to the bottom-most end of the "medium" category).

33 Having identified the reasons why I disagree with the sentencing benchmarks in *GS Engineering*, I now proceed to set out my revised sentencing benchmarks. I will first state the considerations I had in formulating these revised sentencing benchmarks (at [34] to [38]), followed by the methodology that I adopt in arriving at the relevant figures (at [39] to [49] before setting out the benchmarks in the form of a table (at [50]). I should emphasise that a sentencing judge need only consider the table at [50] to determine the indicative starting sentence for a notional offender.

Revised sentencing benchmarks for offences under s 12(1) of the WSHA

(1) Three key considerations in formulating the revised sentencing benchmarks

34 In formulating a set of revised sentencing benchmarks for offences under s 12(1) of the WSHA, I have to keep in mind three key considerations. First, the indicative starting point sentences should be smoothly and continuously distributed across the entire spectrum of severity of the criminal conduct. In other words, the sentences should smoothly and continuously increase in each of these three scenarios: (a) when culpability remains constant but potential for harm increases, (b) when potential for harm remains constant but culpability increases, and (c) when both potential for harm and culpability increase simultaneously. The factual elements of potential for harm and culpability are assumed to be continuous and independent variables that each separately and independently affect the sentence. By ensuring that the sentences increase smoothly, this resolves the problem in relation to the gaps in the range of indicative starting sentences that is present in *GS Engineering*.

35 Second, greater weight should be given to the potential of harm element in determining the indicative starting point sentence, as opposed to according equal weights to both principal factual elements. This means that an increase in the potential harm of an offender should increase the indicative starting point sentence by a greater amount than an increase in the culpability of the offender by the same amount. I have explained why I take this view in *Nurun* (at [90]):

> This is an acknowledgement to the policy behind the WSHA which seeks to deter risk-taking behaviour and give meaningful penalties where there are severe lapses … . An unsafe act done negligently in a workplace and with a low degree of culpability but yet exposes many persons to the risk of very serious injuries should be regarded as far more serious and therefore calls for much greater deterrence than an unsafe act done similarly

> negligently but with a high degree of culpability and which exposes very few persons to the risk of only minor injuries.

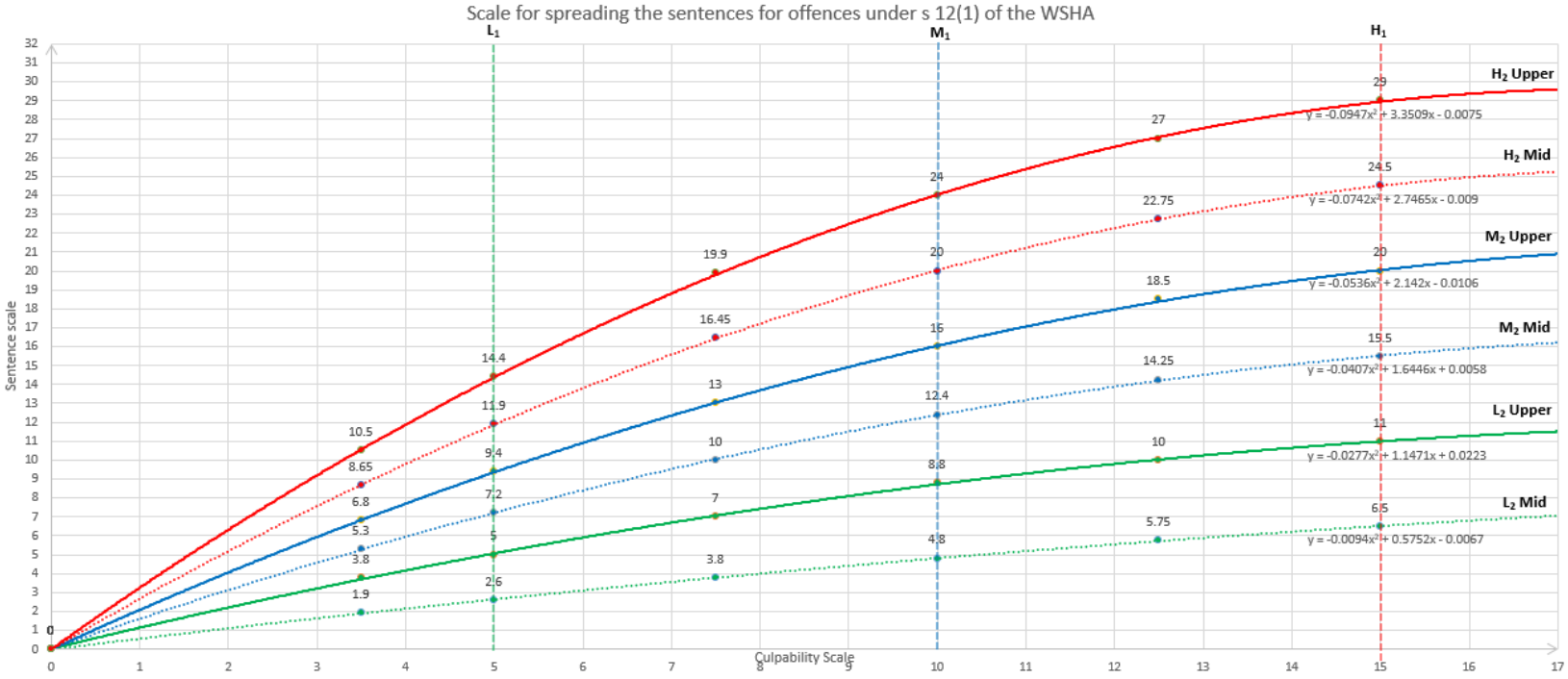
36 In my view, this consideration should hold with equal force to the present case, even though it involves a different offence under the WSHA. Ultimately, the WSHA as a whole was enacted to deter risk-taking behaviour and to ensure a safe working environment (see *Singapore Parliamentary Debates*, *Official Report* (17 January 2006), Vol 80 at cols 2206 and 2214–2216 (Dr Ng Eng Hen, Minister for Manpower)). Therefore, the sentences should be structured such that parties are incentivised to take greater caution when the potential for harm is higher.

37 Indeed, See JC's sentencing benchmarks in *GS Engineering* also seem to have implicitly accounted for greater weight to be given to potential for harm as opposed to culpability (at [70], reproduced in this judgment at [29]). To illustrate, let us take the case of an offender with low culpability and where the circumstances disclose a low potential for harm as a reference point. Applying the sentencing benchmarks in *GS Engineering*, we see that a shift leftward towards medium culpability results in a $20,000 increase in the maximum indicative starting sentence. In comparison, a shift upward towards medium potential for harm results in a $60,000 increase in the maximum indicative starting sentence. Therefore, for the same increase of potential harm and culpability from low to medium, we see that potential for harm has a greater impact on the sentence.

38 The third consideration is that when *either* culpability or harm is zero, the corresponding sentence should necessarily also be zero. This must be true because when there is no culpability or potential for harm, there is no offence that is disclosed under s 12(1) of the WSHA.

(2) Features of the "sentence scale" graph

39 With these three considerations in mind, I plotted the following graph:



40 This is the same graph that I had used in *Nurun* to derive the scale with which to calculate the corresponding indicative starting sentences at the various levels of potential harm and culpability (*Nurun* at [101] and [104]). The key features of this graph are as follows:

(a) The vertical axis (y-axis) represents the "sentence scale". The numbers found along the y-axis do not reflect the actual sentences, but are used instead to derive the *relative differences* in sentences at different combinations of potential harm and culpability. This will be elaborated on further below at [46] to [48].

(b) The horizontal axis (x-axis) represents the different levels of culpability. The level of culpability that each vertical dotted line represents is as follows:

(i) L_1: Upper limit of the "low culpability" category

(ii) M_1: Upper limit of the "medium culpability" category

(iii) H_1: Upper limit of the "high culpability" category

(c) The six curves on the graph each represent a certain constant value of potential for harm. This means that as one moves along the curve, the value of potential for harm is kept constant. In order to increase the potential for harm, one would have to go to the next higher curve. The level of potential for harm that each curve represents is as follows:

(i) L_2 Mid: Midpoint of the "low potential for harm" category

(ii) L_2 Upper: Upper limit of the "low potential for harm" category

(iii) M_2 Mid: Midpoint of the "medium potential for harm" category

(iv) M_2 Upper: Upper limit of the "medium potential for harm" category

(v) H_2 Mid: Midpoint of the "high potential for harm" category

(vi) H_2 Upper: Upper limit of the "high potential for harm" category

41 I made the assumption that the levels of culpability and potential for harm exist on a continuous spectrum that could theoretically extend to infinity, as opposed to just three discrete levels of low, medium and high. This, in my view, is a logical assumption to make, given that within each category of culpability or potential for harm, there is still a range of possible values. Even though a sentencing judge may determine that an offender's conduct falls into certain broad categories, he still considers whether the conduct is on the higher or lower end of that category in determining the indicative starting sentence to be imposed. Therefore, even though I have only plotted three vertical lines to represent the upper limits of low, medium and high culpability, there could theoretically be an infinite number of lines representing every possible level of culpability. Similarly, even though I have only plotted six potential for harm curves on the graph above, there could theoretically be an infinite number of curves representing every possible value of potential for harm.

42 This sentencing scale graph incorporates the three key considerations that I had set out at [34] to [38] above. First, the graph ensures that the sentences increase smoothly and continuously as culpability or potential for harm increases. As can be seen from the graph, as one moves rightwards on each individual potential for harm curve, the sentence increases continuously without any gaps. This represents the fact that a higher level of culpability for the same potential for harm will lead to a higher sentence, and the sentence will smoothly increase as the level of culpability increases. Similarly, the curve for each successive level of potential for harm is located above the other. This represents that as the potential for harm increases for any given level of culpability, the sentence increases. The smoothness of the increase cannot be displayed because not every curve representing every value of potential for harm is plotted on the graph. But if we imagine that an infinite number of curves are plotted representing each successively higher level of potential for harm, we would observe that there is a smooth increase in the sentence that corresponds to each marginal increment in the potential for harm. Even when both culpability and potential for harm increase simultaneously, there would be no gaps in the indicative starting sentence.

43 Second, the graph indicates that greater weight has been given to potential for harm in terms of the impact that it has on the indicative starting sentence. Assuming that culpability is kept constant at low, when the potential for harm increases from low to medium, the sentence scale rises by 4.6. This is demonstrated by moving upwards from the L_2 Mid curve to the M_2 Mid curve along the L_1 line. However, when potential for harm is kept constant at low, and culpability increases from low to medium, the sentence scale only rises by 2.2. This is demonstrated by moving rightwards from L_1 to M_1 along the L_2 Mid

curve. Therefore, an increase in the potential for harm increases the sentence by a greater amount as compared with the same increase in culpability.

44 Third, when either culpability or potential for harm is zero, the corresponding indicative starting sentence is also zero. To illustrate, when potential for harm is zero, it is represented by a line that runs along the x-axis. In such a situation, the sentence scale is zero regardless of the level of culpability. When culpability is zero, it only intersects the potential for harm curves for all levels of potential for harm at the origin. Therefore, the sentence scale is also zero regardless of the level of potential for harm when the culpability is zero.

45 Having described some of the key features of the sentencing scale graph, I now proceed to demonstrate how this graph is utilised.

(3) Utilising the "sentencing scale" graph to determine the sentencing benchmarks

46 As I had alluded to above, this graph does not state the exact indicative starting sentence at each level of culpability and potential harm. Rather, it provides a scale with which to *calculate* the indicative starting sentences at the various levels of culpability and potential for harm. To demonstrate, let us consider a hypothetical offender who is at the upper limit of the high culpability and high potential for harm categories. This hypothetical offender is represented on the graph at the point where H_1 intersects with H_2 Upper, which yields a corresponding "sentence scale" of 29. In the case of such a hypothetical offender, whose criminal conduct is arguably of the most egregious nature, one would expect that the corresponding indicative starting sentence should be at the highest end of the range of indicative starting sentences. The sentence scale

of "29" should therefore correspond to the maximum indicative starting sentence for the offence.

47 In my view, the maximum indicative starting sentence for an offender under s 12(1) of the WSHA should be a fine of $360,000. Bearing in mind that the statutory maximum is $500,000, this allows sufficient headroom for a sentencing judge to further calibrate the starting sentence upwards to account for aggravating factors such as, as will be discussed below, deaths and/or serious injuries.

48 Given that the "sentence scale" of 29 corresponds with the maximum indicative starting sentence of $360,000, it then becomes possible to calculate the indicative starting sentences at the other levels of harm and culpability. For example, if we want to calculate the indicative starting sentence for a hypothetical offender at the upper limit of medium culpability and the upper limit of medium potential for harm, we look at the intersection point between M_1 and M_2 Upper. The "sentence scale" at this point is 15. Therefore, one can derive the indicative starting sentence using the following formula $\frac{15}{29} \times$ $360,000 = $186,206.90, which approximates to $200,000.

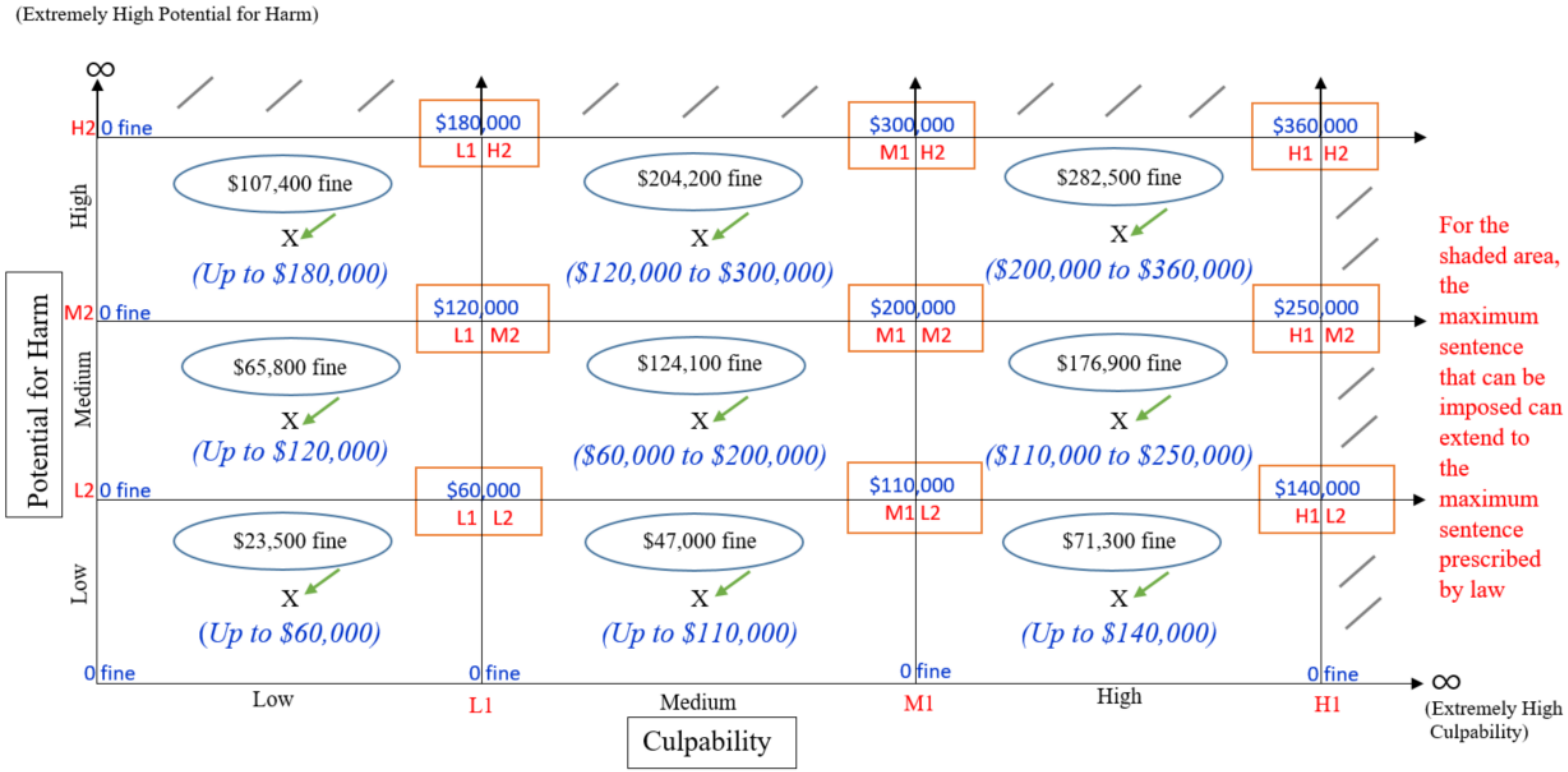
49 There are several peripheral points to explain before I proceed to set out the revised sentencing benchmarks. First, the equations which correspond to each curve for potential for harm (located on the right-most end of the curves) allows for the calculation of the sentence scale at each level of culpability. "y" represents the sentence scale on the vertical axis, while "x" represents the level of culpability in discrete numbers on the horizontal axis. These equations allow the sentence scale to be obtained for each combination of potential for harm and culpability, by simply substituting the "x" value for the value of culpability as

represented by discrete numbers into the appropriate equation which corresponds to the particular level of potential for harm. Second, I must emphasise that this sentence scale graph is not of general application for all types of offences. This sentence scale graph is specifically formulated for offences under s 12(1) and s 15(3A) of the WSHA, where the sentences to be imposed are determined based on two principal factual elements *ie*, culpability and potential for harm, and where greater weight is given to potential for harm.

(4) The revised sentencing benchmarks in tabular form

50 Using the method of calculation I have described at [46] to [48], I derive the indicative starting sentences at various combinations of potential for harm and culpability. These are represented in the table below.

s 12(1) read with s 20 and punishable under s 50(b) of the Workplace Safety and Health Act (WSHA)
(Maximum sentence prescribed by law: $500,000 fine)



51 This table is similar to the one that I had formulated in *Nurun* (at [92]). I will now explain how this table can be used in deriving the indicative starting point sentences for offences under s 12(1) of the WSHA.

52 The key features of the table are as follows:

(a) The horizontal axis (x-axis) represents the level of culpability of a notional offender. For the sake of convenience, the culpability axis is subdivided into three broad categories of low, medium and high culpability. This should not detract from what I have stated at [41] above that the levels of culpability exist on a continuous spectrum as opposed to three discrete levels. The vertical axis (y-axis) represents the level of potential harm caused by a notional offender. The potential for harm axis is also subdivided into three broad categories of low, medium and high potential for harm.

(b) The intersection of the three broad categories of culpability and potential for harm result in a grid of nine boxes as illustrated on the graph. Each box represents a particular combination of culpability and potential for harm. For example, the bottom left box represents a notional offender within the low culpability and low potential for harm category.

(c) The figures stated in the boxes at the intersection points of the L_1, M_1 and H_1 lines and the L_2, M_2 and H_2 lines in the table at [50] above represent the sentences at the intersection points of the L_1, M_1 and H_1 lines and the L_2 Upper, M_2 Upper and H_2 Upper curves as depicted on the "sentence scale" graph at [39] above. These sentences were obtained by adopting the method of calculation described at [46] to [48] above.

(d) From the sentences at each of the intersection points, I was able to obtain the range of indicative starting point sentences for each combination of culpability and potential for harm *ie*, each of the nine boxes. The ranges are represented by the figures in parentheses located in each box. The exact indicative starting sentence can be further calibrated by the sentencing judge based on whether the offender is on the upper or lower end of that particular category of potential for harm or culpability. To illustrate, assume that there are two offenders who are in the same category of medium culpability and medium potential for harm (*ie*, the centre box). The range of indicative starting sentences would therefore be between $60,000 to $200,000. The sentencing judge may decide that one of them is on the upper end of the medium culpability and medium potential for harm category, while the other is on the lower end. Therefore, even though both offenders may be classified in the same general category (or in other words, the same box), one may end up with an indicative starting sentence of $200,000, while the other only ends up with $60,000.

(e) The "X" in each box marks the "centre of gravity" or the midpoint for each combination of culpability and potential for harm category. The sentences that correspond to each of these midpoints are reflected in the ovals directly above each "X". In other words, if a notional offender is assessed to be at the middle of a particular category of culpability and potential for harm, the sentence represented by the "X" would be the indicative starting point sentence. The midpoint of each box does not correspond exactly with the midpoint of the indicative sentencing range stated, because amongst other things, greater weight is given to potential for harm and the model is non-linear due to the effect of there being a maximum fine for the offence.

(f) The shaded areas at the top-most and right-most parts of the table represent the sentences which can be imposed when culpability and potential for harm exceed the limits which I have identified on the table. At the right and top edges of the table, I have set limits within which the vast majority of the cases that are likely to come before the courts would belong (*ie*, most cases will fall within the grid of nine boxes). However, if the offence committed is extremely egregious in terms of the potential for harm or culpability, as represented by the shaded portions, the starting point can extend to the maximum sentence provided by law.

(g) Any notional offender whose criminal conduct falls along either the x-axis or y-axis will necessarily have zero sentence. This is because either culpability or harm will be zero, which means that no offence is disclosed (see [44] above).

53 Therefore, in determining an indicative starting sentence for a notional offender, the sentencing judge first has to identify the broad category of culpability and potential for harm that the offender falls under. Thereafter, the sentencing judge can further determine the exact indicative starting sentence to adopt based on relative severity of the offender's criminal conduct within that particular category.

54 I would highlight that this table only reflects the indicative starting sentences for a notional offender who has *claimed trial*. This is because an early plea of guilt from the offender is only properly considered as a mitigating factor at the second stage of the inquiry.

55 I must emphasise that this table is only meant to assist the sentencing judge in determining the *indicative starting point* based on the levels of

culpability and potential harm, which is only the first stage of the inquiry. The second stage of the inquiry is to calibrate the final sentence to be imposed after accounting for any aggravating and mitigating factors.

Coherence and consistency in sentencing benchmarks

56 The revised sentencing benchmarks that I have set out above are not intended to cause sentencing to become an overly rigid or mechanistic exercise. Ultimately, a sentencing judge still retains discretion in determining the culpability and potential for harm caused by an offender, and also in calibrating the final sentence by considering any aggravating or mitigating factors. However, where two offenders are assessed to have the exact same level of criminal conduct in terms of culpability and potential for harm, they should theoretically be given a consistent indicative starting sentence. Indeed, the very purpose of sentencing benchmarks is to provide sentencing judges with a starting point as a guide, so as to ensure some measure of consistency in sentencing. This strikes a proper balance between having consistency in sentencing, and allowing for sentences to be tailored according to the unique facts of each case.

57 Further, these revised sentencing benchmarks ensure that the indicative starting sentences increase in tandem and in a logical and coherent fashion with the severity of the criminal conduct in question. As can be seen from the revised table, regardless of whether there is a rightward (increasing culpability), upward (increasing potential for harm) or diagonal (increasing culpability *and* potential for harm) shift, the sentences now increase smoothly and continuously. This removes the problem of there being any sudden unexplainable gaps or jumps in the sentencing range, and ensures that the full sentencing range as provided by the law is used.

58 As a final point, I would briefly address a concern raised by See JC in *GS Engineering* at [71] to [73]. See JC declined to stipulate specific starting points for each category of potential for harm and culpability where death has occurred as suggested by the Prosecution. He stated that "these starting points may become too readily applied as the first thought and anchors over time such that they become rarely (if ever) departed from." (at [73]) A distinction must be drawn between the specific starting point sentences that See JC had referred to, and the midpoint sentences that I have identified in the present case (see [52(e)] above). I must emphasise that these midpoint sentences are not to be regarded as the default indicative starting sentence for each category of criminal conduct. Rather, it is meant to be a reference point to assist a sentencing judge in calibrating each offender's sentence based on the offender's specific level of criminal conduct. I am cognisant that there are a wide variety of factual scenarios of misconduct and a corresponding range of possible consequences which make it difficult to pinpoint a single specific indicative starting point. However, my revised sentencing benchmarks aim to provide a sentencing judge with a range of indicative starting sentences that correspond consistently to the precise factual scenario and level of criminal conduct of each offender.

Second stage of the inquiry: Aggravating and mitigating factors

59 After determining an indicative starting sentence at the first stage of the inquiry, the sentencing judge then has to go on to calibrate the sentence based on any aggravating or mitigating factors.

60 The aggravating factors (not meant to be exhaustive) that a court may consider are as follows (*GS Engineering* at [77(e)]; *Nurun* at [107]):

(a) Actual harm caused: This involves considering the severity of the harm caused by the offence, such as serious injury or death, as well

as the number of people that have been harmed. In my view, where death is caused, there should be an uplift in sentence which may be an additional fine levied of up to $200,000 (subject to the total fine being no more than the statutory maximum of $500,000), depending on the number of fatalities. Where serious injury is caused, there should similarly be an uplift in sentence which may be an additional fine levied of up to $50,000 (subject to the total fine being no more than the maximum of $500,000), depending on the severity of the injuries and the number of persons injured.

(b) The breach was a significant cause of the harm that resulted. A significant cause need not be the sole or principal cause of the harm.

(c) The offender had cut costs at the expense of the safety of the workers to obtain financial gain.

(d) Deliberate concealment of the illegal nature of the activity.

(e) Obstruction of justice.

(f) The existence of relevant antecedents, such as whether the offender has a poor record in respect of workplace health and safety.

(g) Falsification of documentation or licenses.

(h) Breach of a court order.

(i) Deliberate failure to obtain or comply with relevant licenses in order to avoid scrutiny by the authorities.

61 The mitigating factors (not meant to be exhaustive) that a court may consider are as follows (*GS Engineering* at [77(e)]; *Nurun* at [108]):

(a) A high level of cooperation with the authorities.

(b) A timely plea of guilt.

(c) The offender has voluntarily taken steps to remedy the breach or prevent future occurrences of similar breaches.

(d) The offender has a good health and safety record.

(e) The offender has effective health and safety procedures in place.

62 To summarise the approach set out above:

(a) First, the sentencing judge must consider the level of culpability and potential for harm of the offender based on the factors set out above at [27] and [28].

(b) Second, the sentencing judge will then use the table provided at [50] to derive an indicative starting point for the sentence.

(c) Third, the sentencing judge should calibrate the final sentence by taking into account all the relevant aggravating factors and mitigating factors in the case.

63 I now apply the sentencing framework and benchmarks set out above to the facts of the present case.

The appropriate sentence in the present case

First stage: determining the indicative starting sentence

64 The appellant argues that its culpability and potential for harm should be in the low to zero range given the absence of aggravating factors and presence

of mitigating factors (see [23(d)] above). At the outset, I agree with the Prosecution that the appellant is mistaken as to the proper application of the two-stage sentencing framework. The proper factors to be considered at the first stage of the inquiry are those that inform the court as to the culpability and potential for harm of the offender, such as those stated at [27] and [28] above. Be that as it may, I will consider the mitigating factors that the appellant has raised in the second stage of the inquiry. However, I note that the absence of aggravating factors does not *ipso facto* constitute a mitigating factor, contrary to what the appellant has argued at [23(b)] and [23(d)] above: see *Public Prosecutor v AOM* [2011] 2 SLR 1057 at [37].

(1) Potential for harm

65 In my view, the potential for harm in this case is nearer the upper end of the medium category. I find that the seriousness of the harm risked, and the likelihood of that harm arising, are both relatively high. This is on the basis that the appellant's employees were all aware that high voltage testing and calibration carried with it a high risk of electrocution, which would likely lead to death or severe injuries (see [13] above). This is bolstered by the fact that there were virtually no steps taken to mitigate the risk of electrocution.

66 However, I note that the number of people exposed to the risk of electrocution at any one time is probably confined to the person conducting the high voltage testing. Wheeler stated that at a voltage of 16kV, which is the maximum voltage of the ARS machine, the minimum air gap required is 254mm. This approximates to about 25cm. It is unlikely that any other person would have been in a 25cm radius of the live output cable apart from the person conducting the testing. I am of the view that the category of high potential for harm should perhaps be reserved for situations where a number of people are

exposed to a significant risk of harm. For example, if the floor of a high rise building collapses, or if there is an industrial accident at a power plant that causes a massive explosion. See JC expressed a similar view in *GS Engineering* at [87]:

> … I do not derive assistance from the Prosecution's rather sweeping submission that the "potential for harm cannot be any higher than this". This does nothing to advance its argument, while I accept, that the potential for harm is high. One need only think of workplace accidents such as the collapse of Nicoll Highway for this to be seen in perspective. While it cannot be gainsaid that every life is precious and every death is tragic, it also cannot be denied that the potential for harm – not only to the workers on the ground but to the public as a whole – can be far greater in other cases.

In the circumstances, I find that the potential for harm in the present case should be nearer the upper end of the medium category.

(2) Culpability

67 In my view, the culpability of the appellant in the present case is in the medium category. Prior to the inspection done by the MOM, the appellant had not conducted risk assessments for any of its high voltage testing and calibration activities at the workplace. Even after the inspection, the appellant only conducted a very generic risk assessment which failed to even identify the most obvious risk *ie*, electrocution. Additionally, the appellant did not have any safe work procedures in place. The breaches were clearly systemic, as evidenced by the fact that there were no risk assessments done for the high voltage testing and calibration on three previous occasions (see [14] above) and no proper equipment such as a non-electrically conductive stand where the high voltage vise grip can be safely attached to during the conduct of the high voltage testing and calibration of the ARS machine. All these adverse facts, in addition to the fact that the appellant had allowed its employees to merely "sign off" on

calibration certificates and risk assessment forms without being properly qualified or even aware of what they were signing, demonstrated a poor organisational culture in terms of workplace health and safety.

68 That said, I would not go as far as to say that the breaches were committed intentionally. It appears to me to be more a case of negligence, which could be attributed to the fact that the appellant had operated for 25 years without any accident occurring, and had therefore grown complacent.

69 I briefly address a point that was made by the appellant both in its written submissions and at the hearing before me. The appellant states that the ARS machine did not comply with certain safety standards,[21] insinuating that the accident should be attributed to the faulty design or some malfunctioning of the ARS machine rather than the omissions of the appellant. In my view, this is a misguided attempt by the appellant to shift the blame on to the regulatory authorities or the manufacturers of the ARS machine, as a means to lessen its own culpability. Section 10(*c*) of the WSHA makes it clear that a duty or liability imposed by the WSHA on any person is not diminished or affected by the fact that it is imposed on one or more other persons, whether in the same capacity or different capacities: *GS Engineering* at [82]. There was no credible evidence before me to suggest that the ARS machine was defectively designed, non-compliant with safety standards or had indeed malfunctioned. But even if we take the appellant's case at its highest and assume that the ARS machine was indeed badly designed or faulty, the appellant would still have failed to discharge its responsibility to ensure that proper risk assessments were conducted and safe work procedures were in place for its employees. In the

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21 Appellant's written submissions, p 3, para 5; p 10, para 15.

circumstances, I find that the culpability of the appellant in the present case should be somewhere at the middle point of the medium category.

(3) The starting point sentence

70 For the reasons above, I find that the appellant is situated near the medium potential for harm and medium culpability category. According to the table above at [50], the midpoint sentence is $124,100. Given the fact that the potential for harm tends towards the upper end of the medium potential for harm range, I find that the appropriate starting sentence for the appellant is a fine of $150,000.

Second stage: calibrating the sentence with aggravating and mitigating factors

71 The key aggravating factor in the present case is the actual harm caused by the appellant's safety breaches, which resulted in the death of Suman. Taking into account the one death that was caused, I impose an uplift of $30,000 from the indicative starting sentence (see [60(a)] above).

72 That said, I note that there are several mitigating factors in the present case that warrants a discount in the sentence. First, the appellant had indeed provided a high level of co-operation with the authorities. This was a fact that was acknowledged by the Judge at [131] of the GD. Second, apart from this incident, the appellant has not had any brush with the law since it first started operations 25 years ago.

73 I would also address an argument raised by the appellant that the present case is distinguishable from *GS Engineering* on the basis that the offender in that case had "admitted guilt" (see [23(a)] above). With respect, the appellant

seems to be labouring under the misimpression that an admission of guilt is an aggravating factor. Instead, a timely plea of guilt is regarded as a mitigating factor given that it shows the remorse of the offender and also saves the court's resources by avoiding the need for trial.

74 Balancing the aggravating and mitigating factors, I set aside the sentence of $200,000 fine imposed by the Judge and impose a sentence of $160,000 fine in its place. I would, however, emphasise that the offence committed by the appellant is a serious one that resulted in the loss of life. Therefore, the reduction in sentence should by no means be taken as an indication that such behaviour is at all condoned or tolerated.

Conclusion

75 For the reasons given above, I allow the appellant's appeal against sentence. Accordingly, the original fine of $200,000 imposed by the Judge is reduced to a $160,000 fine.

Chan Seng Onn
Judge

Mark Wheeler appearing as corporate representative of the appellant;
Teo Siqi and Mark Jayaratnam (Attorney General's Chambers) for the respondent.