IN THE DISTRICT COURT
AT WANGANUI

CRI-2013-083-000629

MINISTRY OF BUSINESS, INNOVATION AND EMPLOYMENT
Informant

v

TASMAN TANNING COMPANY LIMITED
Defendant

Hearing: 26 March 2014

Appearances: G Lahood for the Informant
P Chisnall for the Defendant

Judgment: 26 March 2014

NOTES OF JUDGE J P GITTOS ON SENTENCING

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[1] The Tasman Tanning Company Limited faces a single charge laid under the provisions of the Health and Safety in Employment Act 1992 and specifically against s 6 thereof in that being an employer, it failed to take all practicable steps to ensure the safety of its employees while at work, in that it failed to take all practicable steps to ensure that its employees were not exposed to the hazard of hydrogen sulphide in their place of work.

[2] The company having earlier entered a prompt plea of guilty to this charge, it now appears for sentence. I have had the opportunity of considering in advance of today's hearing the lengthy and helpful submissions and references to case authority filed by both counsel, and I express my appreciation of their diligence in that regard.

[3] I have heard this morning at some length from counsel who have both been helpful in elaborating upon the written submissions and upon some of the matters of fact relative to the charge which did not emerge particularly clearly from the rather brief summary of facts that was read.

[4] The company is in the business of tanning leather and has two tanneries in the Wanganui area. The smaller and older of these two facilities was the focus of the unfortunate accident which has led to this prosecution. The company, it needs to be said at the outset, has adopted a responsible and caring attitude to the employees who were injured and has a good, in fact an excellent, record of industrial safety in what is inherently a quite heavy and dangerous industry, having been in this business for some 60 years in this district and employing at present some 250 people in its two facilities.

[5] It has not previously been prosecuted by the authorities for any breach of the health and safety legislation for the time being in force over that period. That is a good record which needs to be recognised. It may be that the systems of work, having worked so well for this company over the years, appeared impregnable but unfortunately that has not proven to be the case.

[6] In this case, unfortunately a wrong combination of chemicals was introduced into a vessel in which hides were being processed, with the result that an immediate and overwhelming emission of hydrogen sulphide gas was generated, overwhelming a number of members of the staff, some of whom suffered injuries which are as yet unresolved and the prognosis for which is uncertain.

[7] The company manages its business in such a way that it places reliance really, and has I infer from the whole of its management of these businesses, upon strict adherence by staff to a system of work, a recipe as it was described, and adherence to the process outlined in that way is ensured by having a copy of the recipe for a given batch of skins mounted on a clipboard beside the vessel in which the skins are treated so that the staff in charge can, much in the manner of a nurse managing a patient, have reference to the record and tick off what has been done and observe what has to be done next.

[8] It is important, and obviously so for people experienced in this industry, that that system of work proceed in an orderly fashion because the chemicals that need to be added to these large vessels at various times need to be sequenced in a manner which does not bring about a reaction such as happened on this occasion and which would generate poisonous gas.

[9] The process called for significant quantities of acid to be introduced to these vessels at one stage of the process, and significant quantities of sodium hydrosulphide at another stage. The quantities, as I was advised from the bar, were of the order of some 90 kilograms of sulphuric acid at a 10:1 concentration, and at another stage of the manufacture, some 97 kilograms of sodium hydrosulphide. It is self-evident that these two substances were not intended to be added at the same time or at any time in close proximity to one another, otherwise the sort of reaction which in fact occurred on this occasion would produce an overwhelming volume of poisonous gas.

[10] What has occurred on this occasion is that through an error, and it must be acknowledged a human error on the part of Mr Ratana, the person who was in charge of the particular process at the time, a dose, as it were, of acid was put into the wrong vessel and followed some 20 minutes later by a dose of sodium hydrosulphide. The adverse reaction occurred, generating gas and with devastating results, particularly to Mr Ratana himself. It is a fact that all of the staff involved in this business at the time, and in particular Mr Ratana himself ,were very experienced people who had been working for the company for a long time and knew the systems well.

[11] It may be a factor in the mistake that Mr Ratana made that he had had a fall earlier in the evening and hurt his head, but having been seen by the safety supervisor Mr Burgess, he felt himself fit to continue and did so. Whether or not that had any effect upon him making an error in the distribution of these substances one cannot say, but suffice it to say that in any industrial process or any work process, human errors do occur, even in the most experienced of staff, and they must be protected against as best systems of work can be devised to do so.

[12] Where the prosecutor criticises the company in this regard is in two respects. Firstly, as to one aspect of its system of work where a practicable step, it is said and is acknowledged by the company, could have been taken to not wholly eliminate the risk of an error of this kind occurring, but certainly to reduce the likelihood of it happening. That is in the fact that two processing vessels which normally operate in a synchronised manner are connected to a single storage facility which holds the acid required to be administered to the vessels from time to time.

[13] There is a control board and a valve system regulating to which of these vessels acid is to be directed from the common storage tank. That facility is positioned somewhat remote from the tank itself and so there is the possibility, as happened here, of acid intended for vessel 4 being directed to vessel 3 or vice versa. In ordinary operation, that might not have been much of a problem because as I understand the general business of the company, it was the practice to operate both of the paired processing vessels at the same time, commencing a batch of skins in each at the same time so that the same amounts of various chemicals were added to each of these vessels as they made their way through a 48 hour processing period.

[14] On this particular occasion, for reasons that I do not need to go into, it seems that it was not possible to start the process in both vessels at the same time, so one was running ahead of the other and therefore particular care was needed to ensure that when the acid and the sulphide were being added, they were being added to the right vessel at the right time. It is against that combination of circumstances that an unfortunate human error was made so that when Mr Ratana put the bag of sulphide into the open mouth of the treatment vessel into which he had previously inadvertently put the acid, there was an immediate and overwhelming emission of hydrogen sulphide gas.

[15] The other aspect of the matter which the prosecutor criticises and which are acknowledged to a greater or lesser degree by counsel for the company are in deficiencies in the systems of work necessary to ensure that if a hazard of this kind did present, employees were adequately trained in the use and deployment of breathing apparatus and in the methods of rescue which would ensure that persons

attempting to rescue fellow workers who had been stricken by an eventuality of this kind, first of all put on breathing apparatus.

[16] The prosecutor's criticism of the company in that regard has to do with the failure of training systems in that a number of attempts were made by unprotected workers to rescue first of all Mr Ratana and then Mr Burgess who had also succumbed to the fumes, so that a number of staff were injured in the course of trying to go to the rescue without having adequate breathing apparatus deployed.

[17] I infer as a subset of that criticism that there were some deficiencies in the provision of breathing gear and in its placement and deployment within the firm, and indeed, although the defence takes issue with that as not being a matter that was particularly emphasised in the summary of facts, counsel nevertheless fairly and frankly conceded that the number and placement of masks available was less than ideal and that that has been set right in the extensive measures that the company has taken after the fact to ensure that such a hazard is properly dealt with in future. So those are the issues which really are at large in this matter.

[18] The consequences of the accident in terms of injury to staff were worrying. Mr Ratana was almost immediately, it seems, overwhelmed by the gas. He was seen to be unconscious by Mr Burgess who went to his rescue and was overwhelmed himself. Other staff saw both these men unconsciousness and attempts were made by them, initially without the aid of breathing apparatus, to go to the rescue as well.

[19] In particular, another staff member, Mr Balivou, set out up the stairs towards the mezzanine area where the two unconsciousness employees were lying and became himself unconsciousness while still on the stairs. It was not until that point was reached that breathing apparatus was located and used by another employee, Mr Siganisucu. He put on a breathing mask but became himself almost incapacitated and gave his mask to another employee, Mr Malili, who took over the rescue using the same mask.

[20] It seems significant that there was only one mask at that point available and in use. Mr Malili and Mr Heke together managed to get Mr Ratana out of the building. Mr Burgess was also recovered. Both Mr Ratana and Mr Burgess suffered quite severe difficulties as a result of inhalation of this gas. In particular and most seriously injured was Mr Ratana who remained unconsciousness and in a coma for some time. He has suffered burning damage to the lungs and has suffered difficulties also with his eyesight, as have Mr Burgess and Mr Balivou. Other members of the staff have been to a greater or lesser degree also affected.

[21] In all, four staff members were rendered unconsciousness by the gas and six in all required treatment of one kind or another, the most severely affected being, as I say, Mr Ratana and Mr Burgess for whom it must be said the prognosis for complete recovery is still uncertain.

[22] I have had the opportunity of reading a number of medical reports from which it is evident that the effects of exposure to this gas are not particularly well known and the prognosis for recovery in terms of breathing function and impairment of eyesight are as yet uncertain. That must plainly have not only a physical but an emotional impact upon the unfortunately afflicted members of the staff involved and also upon their families, and I have had the opportunity of reading and considering quite lengthy victim impact statement concerning these things and which I take fully into consideration in the decision that I have to make.

[23] Both counsel have helpfully referred me to the leading authorities in this field and to a number of other decisions of the Courts where similar sorts of cases have been dealt with which are of anecdotal assistance to the Court when it comes to the process of assessing compensation and assessing the appropriate level of penalty.

[24] The leading case of course is that of *Department of Labour v Hanham & Philp Contractors Ltd & Ors* [2008] 6 NZELR 79 and following the format that is set out in that decision, the Court is directed first of all to consider the interests of the affected employees and to assess appropriate reparation for the injuries that they have suffered. That is something that needs to proceed as a first and standalone assessment really and as I say, it presents a task of some difficulty and complication

in this particular case because we are not here dealing with somebody who has lost a hand or a leg or has suffered some other common and identifiable injury of that kind.

[25] We are dealing here with the difficulties of internal injuries affecting the breathing which is a very vital function and engages, as I have mentioned, not only physical disability but some degree of mental anxiety about how things are going to go for the future. One has in mind the plight of people such as gassed soldiers in the First World War and people subjected to Agent Orange and other unusual chemical exposures that have, over a period of time, been shown to be more severe than might at first have been expected.

[26] So I think it behoves the Court to be not ungenerous in approaching the matter of compensation for these men. The prosecutor has put forward a schedule of suggested figures which has been compiled by careful reference to other cases where people have been affected by gas inhalation. There is no other comparable case involving this particular gas. There have been cases involving carbon monoxide poisoning which has been brought about by the use of vehicles, typically forklifts in confined spaces. The position is similar but by no means the same.

[27] The suggested level of compensation that the prosecutor puts forward is for Mr Ratana $20,000, Mr Burgess $15,000, and lesser sums for those staff members who were less gravely affected. In my view, those figures need to be revised upward somewhat to reflect the emotional stress that these people are subjected to and the uncertainties of the future which they face. It is necessary that this be done now but it is being done against a situation where the final prognosis is not known and may not in fact be known for some time. I therefore propose to scale those proposed levels up somewhat and I make an award of reparation in respect to Mr Ratana of $35,000, Mr Burgess $25,000, Mr Balivou $15,000, Mr Siganisucu $7500, Mr Heke $4500 and Mr Whanarere $3000.

[28] The next thing that needs to be dealt with is an appropriate penalty and that clearly needs to be assessed against the level of reparation that I have just fixed. In doing that, I need to adopt the sentencing format that has been laid down in *R v Taueki* [2005] 3 NZLR 372, (2005) 21 CRNZ 769 and fix first of all a starting

point and then adjust that for aggravating and mitigating features, to arrive at an end figure.

[29] The decision in *Hanham & Philp* postulates a number of levels of culpability with levels of fines fixed in a series of bands starting at low culpability, a fine up to $50,000, and from there in four levels really to the maximum fine of $250,000 available in an extreme case. I bear in mind that there have been six people injured in this episode but there is only one charge and that is something that I need to keep in consideration in looking at the overall culpability.

[30] I need to bear in mind also that that culpability needs to be measured against the potential for harm that an incident of this kind presents. Potentially all the occupants in this factory, some 18 of them, were at risk from this catastrophic and sudden outpouring of poisonous gas. So in looking at the measure of risk and culpability, that factor needs to be borne into consideration.

[31] The factors set out in *Hanham & Philp* relevant to the assessment of culpability are identification of the operative acts or omissions at issue, an assessment of the nature and seriousness of the risk of harm as well as the realised risk, the degree of departure from standards prevailing in the relevant industry, the obviousness of the hazard, current state of knowledge of the risks and the nature and severity of the harm which could result, and the current state of knowledge of the means available to avoid the hazard or mitigate the risk of its occurrence.

[32] In that respect, the prosecutor identifies the provision of a separate storage tank dedicated to each processing vessel as a practicable step that could have been put in place by the company to attenuate the risk of acid being delivered to the wrong vessel. The defendant accepts that that is a step that could have been taken and that indeed its other and larger factory is indeed set up that way. Whether that would have prevented this accident is problematic because we do not really know what the focus of the error was, but it certainly would have reduced the possibility of such a mistake being made.

[33] The failings to make adequate provision for safety in the event of such a gas incident occurring seemed to me to be more concerning than the criticism of the lack of separate storage tanks. One of the matters raised there is that the defendant could have provided its employees with personal gas detectors which, had they been being worn, would have given warning not only to the employee exposed but also to other employees who might be attempting a rescue that there was a hazardous level of gas in the vicinity.

[34] That is of particular importance in relation to hydrogen sulphide gas because the evidence as it was put before me is to the effect that that gas is detectable by smell only really when it is at a low and potentially not harmful level. When it reaches a high level of concentration and is harmful, it becomes undetectable by smell. So while intuitive thinking might suggest that the stronger the gas or the greater its presence, the more pronounced would be the smell, in fact the science tells us that the gas overwhelms the olfactory organs and when it is at a dangerous level, it is no longer detectable in that way.

[35] Hence the provision of a warning device such as a personal gas detector assumes, in my mind, a considerable prominence as a step that could have been taken and should have been taken, as the company now acknowledges, to protect its employees. Had that been done then it seems that there would have been a better prospect of employees and particularly Mr Burgess seeking protection for himself against inhalation of gas before going to Mr Ratana's assistance.

[36] Given that Mr Ratana had had a fall earlier in the evening, Mr Burgess seeing him prone on the mezzanine floor, may not have associated that with gas and may unwittingly have gone into peril himself, not realising that the gas was present. Had Mr Ratana and indeed Mr Burgess himself been equipped with a personal gas detector, that could not have happened.

[37] I acknowledge the submission made to me by defence counsel that the company has not been unaware of the availability of these devices and that it has now provided them for employees and indeed that it did trial such devices at an earlier stage, but was directing its attention at that point to malfunctions in the

machinery and unfortunately did not give its mind to the prospect that a catastrophic emission of gas from an open vessel might have eventuated in the way that it did in this case. That, while understandable given their long record of safe management of these processes, nevertheless leaves that as a clear step that could and should have been taken that was not taken for the safety of the staff.

[38] The other practicable steps have to do with training workers in evacuation and safe operating procedures. That is the focus that the prosecution has taken but I think that inseparable from that is the issue of whether there were in fact adequate breathing devices or masks available to the staff and as to whether they were in a position where they were going to be able to be used if they were needed.

[39] Once again, defence counsel, when questioned about this by me in the course of the hearing, drew to my attention that this was not a focus of the summary of facts and not a matter upon which the prosecution had laid much emphasis. I was assured that there were respirators available in the premises and I accept that that was so, but counsel accepts that staff had to go and locate them, that they were not readily available and that in the comprehensive remedial measures that it has taken, the company has now not only provided more of these but has provided a greater variety of them and has ensured that they are positioned readily accessible near to the workplace where such accidents are likely to arise if they are going to arise.

[40] So whether it be a failure to have these things available in a handy and readily known location or whether it was a failure of proper training of staff in obtaining and putting on these devices before attempting a rescue matters not much I suppose. It may be a combination of those things but the fact of the matter is that several staff members got into difficulties and were injured as a result of trying to effect a rescue without first availing themselves of protective devices. I note that it seems that only one such device was deployed and had to be shared between two employees in the event anyway. However that state of affairs came about, it does not bespeak an adequate attention to training and provision of respiratory devices against the known risk that a emission of hydrogen sulphide could occur.

[41] The nature and seriousness of the harm needs to be appraised against the potential risk as known to the company and the realised harm as eventuated on this occasion. The potential harm is where I think the most serious aspect of this case lies because if, as happened here, a large quantity of acid and hydrogen sulphide were inadvertently placed together in the one vessel, a substantial volume of very toxic gas was inevitably going to be generated and that potentially put every member of staff in the enclosed premises at risk of injury and possibly death if not promptly evacuated.

[42] Unconsciousness is known to occur after a very short period of inhaling this gas and it has a rapid and severe impact on the human body. This company has been dealing with chemicals which they know need to be mixed together or used in the same process and must be kept apart, and so the onus is heavily upon an employer dealing with toxic substances of that kind to ensure that everything is done to ensure, first of all, that they do not get mixed up together, and that if they do, there are systems in place and devices provided to reduce the risk to the minimum.

[43] So the risk of harm was very much at the high end of the scale. The realised harm fortunately was considerably less than it might have been. Nobody lost their life but that could very easily have happened. As it is, some seriously concerning injuries have been suffered by Mr Ratana and to a lesser degree by Mr Burgess and others.

[44] There was, in my view, a clear risk which appears not to have been appreciated of a sudden and overwhelming issue of gas if an accidental combination of these substances, both of which were used in the process on a routine basis, came about, and that seems possibly because of a long, uneventful industrial history, not to have been fully recognised. The obviousness of the hazard I have just commented upon and that is a matter that needs to be rated I think as high, although that may have been obscured given the company's impeccable operation of this hazardous business in the past.

[45] The prosecution suggests that there has been some failure of industry standards. Although there are no published standards in this industry to which reference can be made, I should have thought that in the steps taken to properly train and provide for emergency situations here, there has been a systemic failure which is demonstrated by the events of the day in question and I need say no more about it than that.

[46] The knowledge of the potential for harm is commented on by the prosecutor on the basis that it is common knowledge and I suppose that must be accepted as so. It may be that some would say that people who deal with these materials in the way that this company does would be even more aware of this potential for harm. On the other hand, it is easy to see that having run this business for 60-odd years without incident, it might have been something that they had, by being so close to it, not really recognised as being a possible hazard. But it certainly seems to me as a layperson in these matters that there was a high and clear hazard there that needed careful steps to be taken to avoid a catastrophe.

[47] Overall, not all of those criteria are seen to be such as to invite the view that the level of culpability was high, but there are a sufficient number of them where that assessment must be made for me to say without question that overall I think the level of culpability in this case must be assessed as in the high range on the scale provided in *Hanham & Philp.* For the record and for the comfort of staff, it should be said that there is no answer in making this assessment to say that an employee is partly at fault and in this case, if it was acknowledged, as it is, that this was Mr Ratana's mistake, it was not a mistake that came about through any disobedience of procedures or anything other than human inadvertence to which we are all to a greater or lesser degree prey.

[48] The prosecutor, making an assessment of high culpability as I accept to be the case, suggests that a starting point of $130,000 is appropriate for this offending. For the defendant, Mr Chisnall considers that a lower start point should be adopted and that a lower level of culpability should be adopted and relies upon a number of other cases which I have been referred to, in particular a case involving *Talley's Seafoods* and a more recent decision in the Auckland District Court involving *Watercare.*

[49] There are significant distinctions in the factual matrix between those cases and this in one way or another, some of which the prosecutor has helpfully identified. While they are helpful to me in an overall way, they I think depend to some degree on their own facts. In particular insofar as *Talley's* is concerned, that was decided after the penalties had been increased for offences of this kind, but before the landmark decision of the full Court in *Hanham & Philp* which emphasised the need for higher penalties to be imposed in line with the increase, Talley dealt with carbon monoxide poisoning which was coming about in a slow and incremental manner from the use of a motor vehicle indoors rather than a catastrophic and sudden emission of poisonous gas in volume. So the potential for harm there was in no way to be equated to what happened in this case.

[50] I am satisfied that the level of fine which the prosecutor contends for is one which is well within the range that the Court should be adopting. I think a start point of $130,000 is appropriate and I adopt that start point accordingly. There are no aggravating factors which would cause that start point to be uplifted.

[51] There are a number of significant mitigating factors that Mr Chisnall has drawn to my attention and which the prosecutor properly acknowledges. In particular, the company has co-operated fully with the Ministry's investigation. It has put in place significant changes to the operation and provision of safety devices including personal gas alarms, further and other breathing apparatus, as I have indicated. It has been a good employer insofar as its attitude to its employees is concerned. Their immediate costs and financial losses have been covered. Some interim payments of reparation have been made.

[52] I say at this stage, least I should forget to do so at a later point, that the awards of reparation that I have made are to include what has already been paid by the company and are a gross sum. The company has shown significant remorse and, as I say, has made reparation payments on its own motion already and received all staff back into its employment as they have been able to resume work.

[53] It has a excellent safety record in what is a dangerous and potentially hazardous industry and not only in its chemical hazards but I should think in other workplace hazards, given the weight of machinery and the nature of the task that is undertaken, and to have had a clear record over some 60 years in that operation on a fairly large scale is a significant matter.

[54] So bearing those matters into consideration, and also bearing into consideration the fact that I have seen fit to adjust upwards the level of reparation from that sought by the prosecution, some corresponding attenuation of the fine needs I think to be made. So with all of those things taken into consideration, I think that a deduction from that start point of 25 percent should be made to reflect those mitigating factors and the further adjustment to reparation which I have made. That reduces the gross start point to $97,500.

[55] From that position, the company is entitled to a full discount for its prompt guilty plea in line with the *Hessell* decision, which leaves a net figure of $73,100 which I round to a fine of $73,000. So that is the overall outcome. The company will be convicted and fined $73,000 and ordered to pay reparation of $35,000 to Mr Ratana, $25,000 to Mr Burgess, $15,000 to Mr Balivou, $7500 to Mr Siganisucu, $4500 to Mr Heke and $3000 to Mr Whanarere. Those sums to be inclusive of such sums of reparation as have already been paid to those workers.

J P Gittos
District Court Judge