

ALAN BENNETT LEGAL SOLICITORS

Alan E Bennett
Adjunct Professor of Law
Sydney University

44 Araluen Drive
Killcare NSW 2257
Australia

Phone: 0438 235 581
Email – abennett@ablegal.com.au

Mr Chris Vincent
Case Manager
Operations 1
Anti-Dumping Commission
by e-mail: Chris.Vincent@adcommission.gov.au

Dear Sir,

11 February, 2014

Toshiba International Corp Pty Ltd ("TIC")

TIC would like to provide to the Anti-Dumping Commission ("ADC") the material below to assist the ADC in its consideration of the material injury aspect of its current dumping investigation into Power Transformers.

TIC believes that it can sustain the issues of fact contained within this submission. We are pleased to discuss further or elaborate on any of the matters herein as required.

Executive Summary of TIC's arguments in this submission:

- 1 Any alleged harm is attributable to reasons other than dumped imports (i.e. no causal link);
- 2 Wilson Transformer Company Pty Ltd ("Wilson") does not produce power transformers at the upper level of the range i.e. over 330kV and 250 MVA. TIC requests that this upper range be excluded from the scope of this investigation and the investigation be restricted to the scope of the domestic market in which Wilson operates; Questions also raised in this segment concern the issues of "like goods" and "domestic industry";
- 3 TIC wishes to express its disappointment to the ADC that the representations made by Wilson have not been sufficiently comprehensive to properly convey to the ADC the true reasons for Wilson's injury.

1 Determination of Whether There Is a Causal Link between the Dumped Imports and the Injury.

In considering any determination of whether there is causality between the allegedly dumped imports and the claimed injury, the Australian law/Anti-Dumping Agreement ("ADA") require an examination by the ADC of all the relevant evidence including any known factors other than the dumped imports that are also injuring the domestic industry.

Any injury as a result of such other known factors must not be attributed to the dumped imports. So, the relevance of factors like the volume and prices of imports not sold at dumping prices, contraction in demand or changes in the patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments/differences in technology and the export performance and productivity of the domestic industry need to be taken into consideration (see paragraph 3.5 of ADA).

Obviously, disentangling various aspects of injury and identifying that part of injury which could be ascribed to dumping is a complicated task. Unfortunately the task is not clarified in detail within Australia's legislation. It therefore leaves a considerable degree of discretion in the hands of the ADA.

May we suggest that the ADA's discretion should be exercised having regard to the policy underlying the imposition of dumping namely to give relief where it is demonstrated that there is some proscribed predatory practice. TIC robustly submits that it has not been involved in such a practice.

The following points are made to assist the ADA in its deliberations on causality:

1.1 Tender Process

The power transformer market is almost exclusively governed by a tender process.

Any tender process requires the tenderers to provide detailed specifications on a wide range of issues. Power transformer tenders are complex requiring extensive specifications to ensure accuracy and due performance. While open tenders do occur, commonly, requests for power transformer tenders are sent to an approved supplier or vendor list.

Being included on an approved supplier or vendor list is not a matter of right.

Utilities and major corporations formulate their respective lists of approved suppliers/vendors by reference to their corporate experiences, histories and inclinations. Being included on such a list is not at the option of Wilson (nor any other supplier/vendor).

Wilson is either on such lists or not. To the extent it is not on a particular list, then it has little if any chance of being invited to tender. Hence it will not get the work. This inability to obtain the chance to tender is an issue which is unrelated to dumping. It does not seem from TIC's reading of Wilson's application and subsequent documentation that any mention is made of this issue which is often determinative of which company is given the opportunity to supply.

1.2 Successful Tenders

Generally, tenderers return a tender by a set date and time. Late tenderers may or may not be considered, depending on the terms of the initial tender document. The proposals are used to evaluate the suitability of a tenderer as a potential supplier or vendor. Typically organizations follow a detailed vendor screening process to short list the vendors who should be invited for further rounds of negotiation. This screening process could be based on either vendor scoring models or internal discussions within the buyer organization. Discussions may be held on the proposals (often to clarify technical capabilities or to note errors in a proposal or even to attempt to negotiate on the price). In many instances, only selected bidders may be invited to participate in subsequent bids.

Any such elimination of a tenderer from tender consideration due to inadvertence or incompleteness is unrelated to dumping. There is no mention of this reason for Wilson missing out on tender proposals in Wilson's application and nor has any weight being given to it in Wilson's complaint about material injury.

TIC believes that the statistics relating to "loss of market share" for reasons other than price should be factored into any ADC consideration of the loss of market share statistical evaluation in this investigation. These statistics should include circumstances where Wilson: was unaware of the opportunity; declined to quote; was excluded from the tender process; provided incomplete submissions; did not have sufficient company reputation relating to safety and/or or environmental performance; etc.

1.3 History/Capability of Manufacture as an Essential Ingredient for Tender Consideration

In light of our important explanation at the commencement of segment 2 at page 8 of this submission, it follows that it makes commercial sense that Australia's utilities and major purchasers of large power transformers formulate their respective preferred tenderers/vendors having regard to the commercial history of suppliers. To the extent that a supplier has not previously manufactured/supplied power transformers in a particular segment of the market (say equal to or greater than 330kV 90MVA) then it is highly unlikely that such a manufacturer would be invited to tender for supply of a power transformer over that range.

TIC understands that this was the case with Wilson prior to 2013. To the extent that this is a fact, this problem is unrelated to dumping and relates exclusively to the commercial fact that a company inviting tenders in this market will not seriously consider a potential tenderer without that tenderer having a history of relevant manufacture.

There is no mention of this key factor in Wilson's dumping application which attributes all of its injury to dumped imports.

1.4 Nature of Tenders for Relevant Power Transformers

A key issue in considering causality of any alleged material injury in this dumping investigation is an understanding of the nature of the tender process for power transformers. The nature of the supply of goods in these contracts is dissimilar to the nature of supply in

most dumping cases. That is, in most dumping cases the nature of the Australian supply of goods is predicated on the respective states' Sale of Goods Acts.

In contrast, the nature of the supply of the subject power transformers is predominantly based on the contractual arrangements governed by the contract arising from the tender documents. That is, with the supply of power transformers of this range, the nature of the supply is predominantly the provision of goods and services and not a sale of goods per se. The remedy for redress is through the contractual document and very rarely if ever through the Sale of Goods Act.

The relevance of this method of supply in this dumping context is critical because the terms and conditions of the turnkey contract are significantly greater than the statutory warranties necessary in the mere sale of goods. That is, the terms and conditions and requirements in a contract arising from a successful tender involve much more time, energy, resources and costs from the supplier than in a mere sale of goods.

Hence, a tender can be successful or otherwise based on the contractual service requirements, project management etc. necessary for the successful installation of a large turnkey project. It is a commercially reasonable proposition that the weighting of the installation/project management and other necessary ancillary services play a key role in the decision making/cost analysis leading to the awarding of this nature of a turnkey contract.

Wilson's dumping application does not provide any evidence on this point whatsoever but, on the contrary, allocates the entirety of its supposed material injury to dumped imports (that is the goods only).

TIC believes that Wilson should be required to provide some agreeable form of evidence demonstrating what effect this competition in services has including the extent to which such competition has on the awarding of contracts and how Wilson's claim for material injury from dumping of goods is offset by the commercial competition in services between suppliers.

1.5 Best and Final Offer

The Australian National Audit Office suggests that "negotiation is a common feature of the procurement cycle". This is a commercial reality and almost goes without saying.

However, in the context of causality it should be noted that there are a variety of negotiating styles which can be used and there is no one correct approach. The approach used will depend on the resources available, the skills and experience of the personnel involved, what issues are to be negotiated and the timeframe involved.

Entities initiating tenders (like the large utility entities) of the type under discussion are not commercially naive. On the contrary! They endeavour to extract the best deal available and will use whatever negotiating techniques are legally available.

Where Wilson submits a "best and final offer" in the context of any final tender consideration then, it is contributing of its own volition to the pricing conditions of the Australian market. Wilson seeks to argue that this course of commercial conduct has led to price

depression/suppression. It is submitted however, that for a number of reasons this conclusion by Wilson is wrong.

For example, this process of "best and final offer" is a commercial process sufficiently common within Australia as to be described by the Australian National Audit Office:

".... In most instances, only selected bidders may be invited to participate in subsequent bids, or may be asked to submit their best technical and financial proposal, commonly referred to as a **Best and Final Offer (BAFO)**. Subsequent changes can be referred to as the **Best and Revised Final Offer (BARFO)**...." (Australian National Audit Office Webpage)

Therefore according to the Australian National Audit Office the concept of "best and final offer" is not unique to the power transformer industry but permeates commerce generally within Australia.

It is a negotiating technique! The fact that Wilson participates in this technique is its own responsibility and any unfavourable outcome from using this negotiating tool cannot be attributed to price depression/suppression. It is unrelated to material injury arising from dumping.

1.6 Power Transformer Industry - Market Power

Prior to the GFC the power transformer market in Australia particularly at the upper range of power transformer supply may be described as a "supplier market". TIC's then experience was that delivery time was a major factor in winning a contract. A common question from utilities was "when can you make and supply it"? Demand was high and supply struggled to meet that demand.

Since the GFC, the market situation described above has been completely reversed. It is now what may generally and commercially be described as a buyers' market. That is, there is keen competition between suppliers to maintain/grow their respective market share in a depressed/restricted market.

This observation and its ramifications are critical in determining causality within a dumping context. In this post GFC commercial environment, the matter of fact is that there is more robust competition between suppliers.

The High Court has said in the context of Trade Practices law that "effective competition requires both that prices should be flexible, reflecting the forces of demand and supply and that there should be independent rivalry in all dimensions of the price – product – service packages offered to consumers and customers".

So it is recognised within Australia that competition itself is healthy and in fact necessary.

The current power transformer market is highly competitive and this competitive state is a fact and unrelated to dumping. It is what the High Court describes as "effective competition".

To the extent that Wilson struggles to sell power transformers in Australia is not in itself determinative of anything particularly where importers are similarly struggling. The general difficulty experienced by all power transformer suppliers in the Australian market reflects more the GFC reversal of market power from a "suppliers market" to a "buyers' market".

The above observation of the current Australian power transformer market is not unique to Australia. It has global application.

Wilson misrepresents its material injury by attributing it exclusively to dumped product and thereby fails to appropriately analyse the post GFC competitive market both in Australia and internationally.

1.7 Wilson Expansion of Manufacturing Capability

TIC understands that Wilson expanded its manufacturing capability in or around the year 2009. This decision seems to coincide with the turnaround in the competitive conditions of the power transformer market caused by the GFC.

TIC believes that the ADC should have particular regard to the excess manufacturing capability created within Wilson by its "project BIG" expansion (see ADC Visit Report page 27). This expanded capacity would necessarily be left unfulfilled having regard to the then relevant market demand collapse.

Idle manufacturing capacity which eventuates from capital expansion in manufacturing capability and which coincides with a depressed market is attributable to the peculiar timing of that commercial decision. It is unrelated to material injury as a consequence of dumping.

The questionable timing of this decision to expand Wilson's manufacturing capability is not addressed within Wilson's material initiating this dumping complaint. Rather, Wilson claims its material injury emanates entirely from dumped imports.

1.8 Wilson's Exports

Wilson's webpage indicates that it exports power transformers and has made relevant sales in the UK. It seems reasonable to conclude that Wilson had an expectation to generate as many export sales of power transformers as possible. It is assumed that Wilson's then production anticipated such sales.

TIC believes that Wilson's exports of power transformers have probably been adversely affected by the international contraction in demand for power transformers since the GFC and the consequential international change from a pre-GFC sellers' market to a post-GFC buyers' market.

TIC is anxious to ensure that this factor is appropriately considered in any causality determination. Again there is no mention in Wilson's application or subsequent submissions of any injury to Wilson's production caused by any downturn in Wilson's export markets.

TIC believes that Wilson should be invited to provide appropriate evidence demonstrating that its loss of anticipated export sales has played no role whatsoever in the claimed downturn in its production.

1.9 Exchange rate fluctuations

In the period under consideration the Australian dollar was very strong against the US dollar. This strong Australian currency would have adversely impacted on Wilson's exports. This issue is also not addressed in Wilson's representations initiating this complaint. Rather, Wilson attributes its entire injury to dumped imports.

This clearly is not the case. TIC requests that Wilson be invited to address the impact of the high Australian dollar on its exports with the consequential downturn in its production capacity in the manufacture of export transformers.

Moreover, TIC understands that Wilson purchased input materials in US dollars, utilised domestic labour incurring Australian dollar costs and subsequently sold power transformers in Australian dollars. To the extent that this is correct, TIC observes that Wilson's material costs are reduced by the strong Australian dollar. Its labour remains unaffected because that labour component is an Australian dollar cost.

Wilson's production costs then should be contrasted against Asian manufacturers. Those manufacturers are required to buy input materials in US dollars. They utilise local labour incurring domestic currency rates (cheaper than Australian labour but those manufacturers' local currency are often linked to US dollars). Those manufacturers then sell power transformers for the US equivalent amount of Australian dollars. In that relevant period where the Australian dollar was strong, fewer Australian dollars were required to purchase the imported transformers.

The conclusion is that the Asian manufacturers enjoyed benefits from the currency exchange for labour, materials and their margin in contrast with Wilson which only obtained a currency benefits from its material component.

TIC submits that such fluctuations in exchange rates should not only be factored into any "fair comparison" (Para. 2.4.1 ADA) but should also be taken into account in the context of Wilson's injury claim.

1.10 TIC's Imports from Its Suppliers

During the "investigation period" TIC imported 3 units of goods under consideration.

During the "injury analysis period" TIC imported 8 units of goods under consideration. 4 of these units were from China and 4 were from Japan.

TIC submits that when its imports from Japan are excluded, its remaining imports of the goods under consideration are of themselves, immaterial to adversely impact on Wilson. Hence any injury would be de minimis.

TIC appreciates that the law allows for accumulation of injury in certain circumstances. It nevertheless requests that its de minimis imports are taken into consideration when and if dumping margins are considered on its relevant exporters from China and Taiwan.

2 Scope of Dumping Enquiry Is Too Broad and Should Be Confined to the Scope of the Market in Which the Applicant Actually Competed during Relevant Period

By way of introduction, TIC believes that the respective Transformer rating criteria of Voltage (kV) and Power (MVA) should not be viewed independently when considering the sector of the market in which a manufacturer is deemed capable. The ability for a company to manufacture and sell a power transformer of voltage rating 132 kV with power 240 MVA does not mean that the company is recognised for the same power at a higher voltage rating.

The progression of manufacturing capability at increasing voltage levels (for example, from 132 through to 330 kV) is usually associated with a lower MVA rating at the higher voltage than at the lower voltage.

While Wilson's website claims manufacturing capabilities of (nominal system) 330kV and of 250 MVA (and these ratings can be found in their published manufacturing history), the largest 330 kV transformer we are aware of Wilson producing is 90 MVA. TIC does not dispute Wilson's claims of having produced larger MVA ratings at lower voltage levels. (This is demonstrated in the attached diagram (Annex 1) of Manufacturing Capabilities).

A further factor to be taken into consideration is the comparison of single phase and three-phase transformer capability which TIC believes should also be considered in assessing a manufacturer's specific MVA capability for a voltage level.

TIC believes that Wilson did not manufacture in the full range of the goods under consideration during the relevant period and that there are two consequences of this fact:

- . the breadth of the enquiry is too broad and should be restricted to that class or category of transformer in which Wilson has evidence that it actually manufactured; and/or,
- . if Wilson has not manufactured the upper end range of transformers as suggested in this submission, any anti-dumping measures should only apply to that class or category of transformers in which Wilson has a demonstrated capability to supply.

Wilson claims it is injured by "liquid dielectric power transformers with power ratings of equal to or greater than 10 MVA and a voltage rating of less than 500 kV whether assembled or unassembled complete or incomplete".

TIC observes on Wilson's own website brochure (copy attached at Annex 2) that Wilson has the capability to "design and manufacture..... transformers up to 250 MVA 362 kV". This statement from the applicant's own webpage raises serious questions about the scope of the goods under consideration in this dumping investigation. Specifically, it is too broad.

TIC understands that Wilson won a tender released in September 2012 for delivery mid 2013 for 2 transformers which TIC understands to be of nominal voltage range 330kV /33 kV 90 MVA. Wilson's website highlights that a 330 kV 75 MVA transformer was manufactured in 1983. No other details are provided.

To the extent this is correct TIC believes that any dumping complaint by Wilson should be restricted to at best, its current demonstrated capability of supply.

This demonstrated capability should only apply at specific voltage levels. From Wilson's literature and available information Wilson's maximum demonstrated capability appears to be:

Maximum nominal system voltage: 330kV
 for nominal 330kV up to 90 MVA
 for nominal 275kV up to 120 MVA or 240 MVA
 for nominal 220kV up to 150 MVA
 for nominal 132kV up to 250 MVA

If the ratings specified above are the sum of 3 single phase units then the rating of the individual single phase units should be used (instead of the sum of the 3 units). An indicative representation of Wilson's capability in the Australian market based on their known manufacturing capability is attached at Annex 1.

TIC relies on the legal definitions relating to "like goods" and "domestic industry" (see below) to support its representation that the scope of this investigation is too broad and should be restricted to the power transformers which Wilson actually makes.

2.1 "Like goods"

A crucial reason why the upper ranges of power transformers should be excluded from this investigation is that power transformers over 250 MVA 362 kV are not "like goods" for the purposes of dumping law.

TIC understands that the ADC has examined the ""evidence" in the application" and considers that the applicant has demonstrated the 4 facts which appear on page 10 of the ADC's Consideration Report Number 219 dated July 2013.

Without any criticism intended, it is submitted that the information provided in the "4 facts" referred to above is inadequate and that it has not been demonstrated that all the transformers within the full range of goods under consideration are "like goods".

TIC observes that both the Australian law and the Anti-Dumping Agreement ("ADA") define the term "like product" in a very narrow way as generally being a good which is either identical or which has characteristics closely resembling those of the product under consideration. The term has not been interpreted in the context of "direct or indirect competition" (as used by Wilson).

The term "like product" is sufficiently broad to allow some differences in goods under consideration for example, stainless steel of various cross-sectional dimensions can be like goods even with the different cross-sectional dimensions. Television sets of different screen sizes can be like goods. However, any comparison must be as precise as possible; hence the use of the word "identical" in the first paragraph of the definition. The second paragraph has been interpreted in the context of the first paragraph.

TIC believes that 2 conclusions may be drawn from the above observations:

- 2.1.1 Wilson's domestic power transformers in the lower range up to 250 MVA 362 kV (where Wilson claims it manufactures) are not like goods to TIC's imported product in the same range because of the substantial differences between the products including production efficiencies inherent in the TIC supplied products imported from China and Taiwan. These efficiencies provide overall cost benefits to Australian utilities to significantly differentiate those TIC imported power transformers from Wilson's transformers.

Moreover, there are inherent differences in the specifications within these power transformers. Accordingly, it is submitted that Wilson's power transformers are not like goods because of an inability to identify appropriate price comparability between Wilson's transformers and TIC transformers. Any claimed price suppression/depression argument by Wilson cannot be demonstrated without having regard to the differences in specifications referred to above.

TIC concludes that the variances in TIC power transformers necessarily provided to suit individual contracts create such differences that they are precluded from the definition of like goods.

- 2.1.2 It is TIC's observation that Wilson does not even manufacture power transformers above the range 250 MVA 362 kV.

International dumping jurisprudence seems consistent on the point that anti-dumping duty should only be considered in the context of protecting that class or category of goods where the evidence demonstrates that the goods have been produced by the claimant. It is not a matter of claims for capability to produce but actual production by the applicant. Therefore where the Australian applicant does not make the actual product under consideration (the upper range referred to above) the goods cannot be like goods for the purposes of dumping law.

TIC therefore believes that at least the upper range power transformers should be excluded from the scope of this investigation.

2.2 Does Wilson Constitute the Domestic Industry For the Entire Range of Power Transformers under Consideration

It is submitted that Wilson does not constitute the domestic industry for power transformers equal to/over 250 MVA 362 kV during the investigation period and therefore that aspect of the complaint should be terminated.

According to Wilson's own website, its historic milestones are:

1983: 75MVA 330kV; 150 MVA 220kV

1998: 275kv 240 MVA TxS for Malaysia

TIC also understands that Wilson has sold transformers to the UK at 275kV 120 MVA in addition to the 2013 transformers in the range of 330kV 90 MVA.

As mentioned above, there is no available evidence that Wilson has indeed manufactured power transformers at the upper end of the range of the goods under consideration over and above those ranges referred to immediately above. As such, it cannot legitimately claim it is the "domestic industry" for the upper range of transformers.

The reason for this is the language of Section 269T(4) of the Act. It relevantly provides that if there is a person or there are persons who produce like goods in Australia to the goods subject of the application, there is an Australian industry. If Wilson does not produce a product it cannot claim to do so. This interpretation of the word "produce" is consistent with the relevant jurisprudence.

By way of background, before the closure of the Alstom Brisbane plant in 2012, Alstom was the local "force" in the 330kV transformer industry in Australia. Alstom's capability exceeded 390 MVA at 330kV level and this was the reason for customs duty of 5% for the larger 330kV transformers. That is, tariff concessions were not available because of Alstom's capability. The point is, TIC believes that Wilson was never a competitor at the larger power (MVA) ratings. Other manufacturers in Australia manufacture only to the 132kV level.

Unlike the pre-requisites contained within Part XVA of the Act which discuss capability of manufacture in the context of Tariff Concessions, the provisions of Part XVB are explicit that the applicant must actually "produce" the goods (not have the mere capability).

The policy reasons for the different wording contained within the above-mentioned 2 Parts of the Act are, on reflection quite clear. In Part XVA the legislators are disinclined to give a Tariff Concession where someone could make the goods here in Australia although has not yet done so. In contrast, the WTO/GATT policy underlying Part XVB is the international disinclination to impose an additional/burdensome/penalty duty on an importer as a non-tariff barrier to trade unless the applicant is directly and adversely affected by predatory trading during the period of complaint. In other words the applicant has to be producing the product about which the complaint is lodged.

TIC concludes therefore that to the extent that its above observations about Wilson's actual manufacturing performance are correct, then according to the law, Wilson was not the relevant domestic industry at the time qualified to bring this application at the upper ranges of transformers. Nor can Wilson correct this anomaly retrospectively.

3 TIC's Observations on Wilson's Representations to the ADC

It is apparent from segments 1 & 2 above that TIC believes that the ADC has not been made aware of the full circumstances and market conditions surrounding the material injury to Wilson.

It is also apparent that this incomplete picture may lead the ADC to form an erroneous impression regarding the causes of injury to Wilson.

TIC, through this correspondence, brings this issue to the attention of the ADC and requests that the ADC, in consideration of this issue, reviews all Wilson's representations and re-appraises its conclusions regarding Wilson's grounds for complaint.

Conclusion

- 1' Wilsons alleged injury is caused by industry/commercial issues described in this submission other than dumping. Wilson's case therefore does not satisfy the causality element of the law which must be demonstrated as a prerequisite under the law for the imposition of anti-dumping duty.
- 2 Wilson does not manufacture in the upper ranges of power transformers. For the reasons described in this submission it is submitted that range of power transformers be excluded from the investigation.
- 3 TIC believes that the ADC has not been fully advised of the reasons for any injury to Wilson.

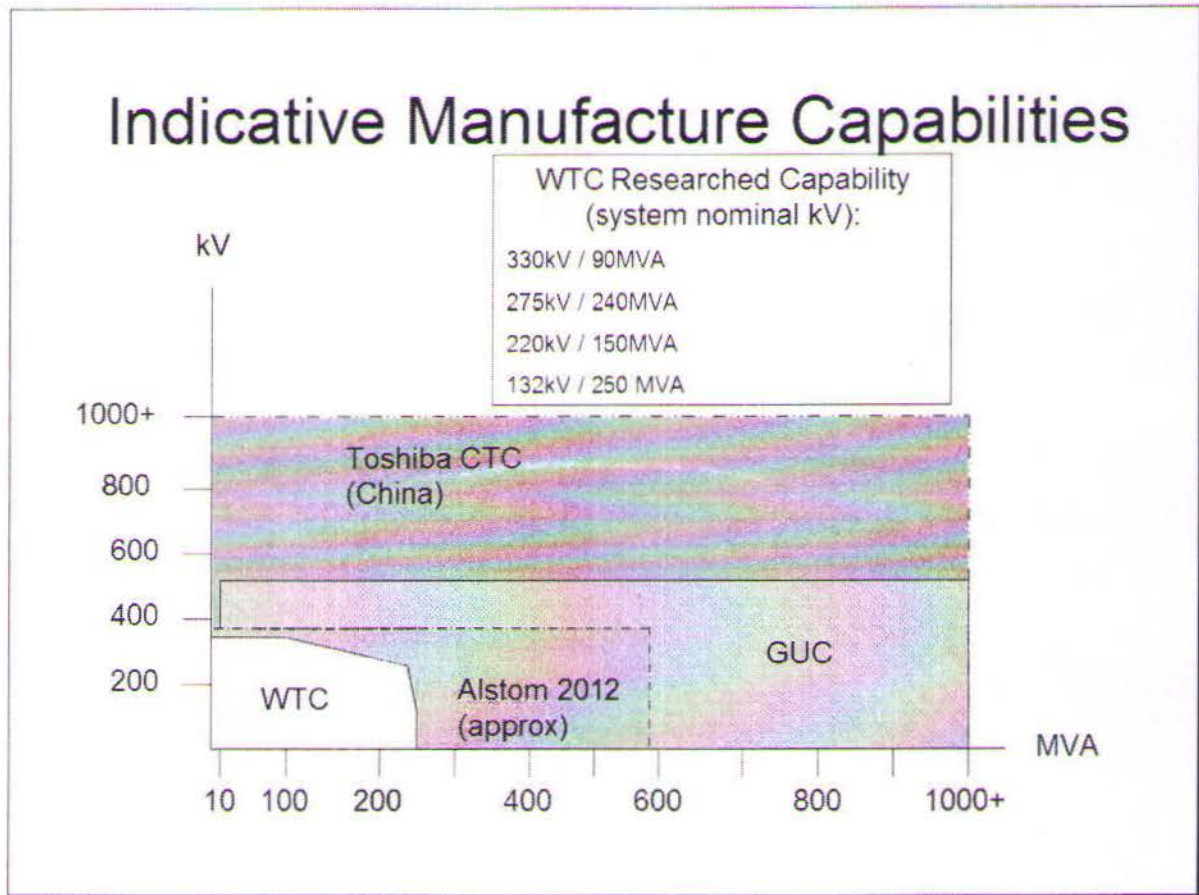
It seems that this complaint should be terminated forthwith on those power transformers greater than 362kV and 250 MVA and further investigation/clarification should take place concerning the issues raised in this submission and how they impact on the causal effect between Wilson's injury and any dumping.

Yours sincerely
on behalf of TIC


Alan Bennett Legal

Annex 1 Indicative Manufacture Capabilities

This annex is referred to in 2 references within the submission at pages 8 & 9



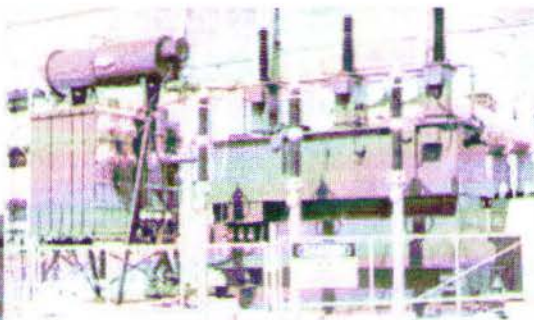
Annex 2 - Wilsons Transformers Brochure
This annex is referred to in within the submission at page 8



Power Business Unit



Submerged arc welding



140 MVA 132 kV generator transformer

Wilson is recognised internationally as a manufacturer of superior power transformers, designed and manufactured to run reliably for many decades. Typical applications for our power transformers include power stations, transmission and distribution substations, large manufacturing plants, refineries and mines.

Power Products

- We design and manufacture:
- generator, substation and auto transformers up to 250 MVA 362 kV
 - mobile transformers for substations
 - rectifier and furnace transformers
 - traction transformers (both track-side and on-board locomotive)
 - other specialty transformers.

Each transformer can be fitted with a conventional relay-based control and monitoring system or alternatively, with our Wilson Transformer DRMCC System (see page 9).

Engineering a Power Transformer

The electrical design is completed using software ranging from the tender optimisation program to sophisticated finite element modelling (FEM) computer programs. The programs optimise the design and calculate electrical impedance and losses, dielectric strength during impulse, induced and partial discharge tests and service conditions, short circuit withstand strength, cooling performance including winding hot spot temperatures and sound levels.

Our mechanical designers complete the internal and external design of a transformer.



Mechanical design analysis



Glen Waverley power transformer plant