



25 July 2019

Director
Investigations 2
Anti-Dumping Commission
GPO Box 2013
Canberra ACT 2601

BY EMAIL:
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Dear Director,

Continuation Inquiry 505 and Review of Measures 499 concerning Hot Rolled Structural Steel Sections exported from Japan, Korea, Taiwan and Thailand

SUBMISSION OF THE AUSTRALIAN INDUSTRY

ONESTEEL MANUFACTURING PTY LIMITED (**Liberty Steel**) provides the following response to the submission of the exporter from Taiwan, Tung Ho Steel Enterprise Corporation (**Tung Ho**), dated 5 July 2019¹.

1. Tung Ho has not complied with the Commission's MCC reporting structure

As directed by the Commission in publishing their proposed model control code (**MCC**) structure at initiation of Review 499, exporters were instructed to classify their data on the mandatory basis of grades having a minimum yield strength of "*less than 265MPa*" and "*greater than or equal to 265MPa*"².

To eliminate any uncertainty about the classification required to be made on the basis of Standard requirements (not test certificate results), the Commission further directed the exporters that "*minimum yield strength refers to steel made to a standard which explicitly specifies minimum yield strength.*"³

Instead of following the Commission's instructions, Tung Ho has instead opted to use mill test certificates (which are variable in nature) rather than the values given in the "*standard which explicitly specifies minimum yield strength*" to determine that all their grades fall into the "*greater than or equal to 265MPa*" category.

Exporters were not instructed by the Commission to classify their sales, in their response to Exporter questionnaire, on the basis of batch test certificate results, or indeed costs of "*semi-finished goods*" which "*exceed minimum specified requirements of like goods of similar groups of*

¹ EPR Folio No. 499/031 and EPR Folio No. 505/023

² ADN 2019/02 (Appendix 1 – *Proposed Model Control Code Structure*)

³ Notes to Appendix 1 to ADN 2019/02

standards”, but rather on Standard requirements for minimum yield strength which forms the basis of customer selection of HRS. Only on that basis, applied correctly for all exporters, could consistency of MCC comparison across countries and exporters be achieved by the Commission.

Tung Ho has not complied with the requirements set out by the Commission for this key mandatory model matching criteria which directly influences the dumping margin calculation outcome for this exporter.

2. Comparing exporter domestic test certificates with export Standard requirements is technically flawed and will give incorrect model matching outcomes

Liberty Steel disagrees with Tung Ho’s view that:

“A comparison of minimum specified requirements of various international standards is not an accurate assessment of like goods compared to comparison of actual properties (via test certificates) of goods produced and sold during the investigation period.”⁴

Contrary to the claims of Tung Ho, steel Standards are not some kind of theoretical guideline which can be ignored in favour of “actual properties” recorded on mill test certificates resulting from a sample of total production. When a certain steel grade has been selected and ordered by a customer, that selection is based on the minimum properties specified by the relevant steel Standard, a mill test certificate supplied at delivery simply serves as confirmation that the steel batch or batches from which the samples were taken have met or exceeded the specific steel grade specifications and were produced in accordance with all the manufacturing and testing procedures specified by the Standard to which it has been produced, as required to be noted on the test certificate.

A mill test certificate indicating compliance with a given Standard grade cannot be used to verify compliance with a different Standard. Tensile test results shown on test certificates necessarily need to exceed the minimum requirements of that Standard – in the case of yield strength results on structural steels, test results exceeding the minimum requirement by 50-100MPa are to be expected.

As demonstrated by Liberty Steel to the Commission⁵, the distribution of a sample of mill test certificate results for Tung Ho Steel’s HRS exports to Australia shows yield strength results in the range of [REDACTED] MPa against a minimum AS/NZS 3679.1 Standard Grade 300 yield strength specification of 300MPa. Liberty Steel also provided test certificate examples for HRS exported from Korea and Thailand where the distribution range of yield strength values was even higher ([REDACTED] MPa) against the minimum yield strength requirement of 300MPa for Grade 300. That does not mean that any of this steel supplied and certified to be Grade 300 can be marketed or sold as a Grade 350 when the test results meet or exceed 350MPa – the steel is only certified to meet the requirements of Grade 300, and accordingly it is marketed, warranted, priced and sold to this grade only.

Similarly, when the Commission are presented with *mill test certificates* for Grade SS400, a distribution of results well in excess of the minimum 245MPa yield stress required by domestic Standards CNS 2473 G3039-103 and JIS G3101-2010 are likely to be expected. Mill test certificate results showing instances where results exceeded 300MPa do not provide evidence that Grade SS400 meets the requirements of Australian export Grade 300 and could not be marketed and sold as such – it is a 245MPa minimum yield strength steel for thickness up to 16mm. Over 16mm thickness, it is a 235MPa minimum yield strength steel.

⁴ EPR Folio No. 499/031 and EPR Folio No. 505/023 at p1

⁵ EPR Folio No. 499/015 and EPR Folio No. 505/004 (Liberty Steel briefing at slide 18 and mill test certificates provided)

The evidence before the Commission, in terms of test certificate result distribution and statements by exporters below, demonstrates that it is common practice for HRS manufacturers, including Liberty Steel, to produce HRS to exceed the minimum Standard requirements.

Tung Ho has stated:

*"It is company policy that HRS is produced to exceed minimum requirements,"*⁶

Siam Yamato Steel (SYS) has also stated:

*"SYS also advised that it aimed to manufacture HRS products to be higher than the minimum MPA prescribed in the relevant standards."*⁷

Liberty Steel has provided, for the Commission's consideration, a classification of Tung Ho grades based on the mandatory minimum yield strength (per relevant Standard) criteria requested by the Commission for model matching purposes⁸.

3. Control of key chemical elements is a requirement for a steel intended for welding

Tung Ho has confirmed that *"some MCC category – Steel Grade Identifier "2" Carbon Steel for General Structure standards do not require carbon equivalent control"*⁹.

On the issue of weldability of structural steels, the UK Steel Construction Info website states, with respect to factors affecting weld embrittlement other than the thickness of the material:

*"The susceptibility to embrittlement also depends on the alloying elements principally, but not exclusively, the carbon content. This susceptibility can be expressed as the 'Carbon Equivalent Value' (CEV), and the various product standards for carbon steels standard give expressions for determining this value. BS EN 10025 sets mandatory limits for CEV for all structural products covered, and it is a simple task for those controlling welding to ensure that welding procedure specifications used are qualified for the appropriate steel grade, and CEV."*¹⁰ [emphasis added]

As for BS EN 10025, all grades produced to AS/NZS 3679.1:2016 also have mandatory limits for weldability control as defined by the carbon equivalent value (CEV) – a maximum of 0.44% CEV applies to Grade 300 and its variants while a maximum of 0.45% CEV applies to Grade 350 and its variants¹¹. The scope of the Standard states:

All grades specified in this Standard are suitable for –

(a) Welding in accordance with AS/NZS 1554, Parts 1, 2, 5 and 7

Based on the CEV, these grades are qualified for welding using procedures established in the welding Standard.

If weldability is given the appropriate consideration by the Commission in determining the most comparable domestic sales model match for the export grades, then grades produced to AS/NZS 3679.1:2016 must not be grouped together with grades that are not intended for welding from *"General Structure Standards"* that *"do not require carbon equivalent control"* e.g. Grade SS400.

⁶ EPR Folio No. 499/025 and EPR Folio No. 505/023 at p2

⁷ EPR Folio No. 499/026 and EPR Folio No. 505/017 at p5

⁸ EPR Folio No. 499/025 and EPR Folio No. 505/016 Attachment E

⁹ EPR Folio No. 499/031 and EPR Folio No. 505/023 at p2

¹⁰ https://www.steelconstruction.info/Steel_material_properties

¹¹ CONFIDENTIAL Attachment A – Standard extract



The assurance given by Tung Ho that “the Commission verification team were shown how to calculate carbon equivalent and provided a spreadsheet to automate evaluation¹²” does not change the fact that SS400 can only be marketed and sold as a “Rolled Steel for General Structures” as per the Standard to which it is produced.

Tung Ho is (dangerously) suggesting that it is able to sell SS400 (general structures) certified HRS as grade SM400 (welded structures) on the basis that the SS400 test certificate batch results meet the chemistry limits specified by the SM400 Standard. From a structural engineering perspective, this is an untenable proposition.

To suggest that customers can ‘self assess’ (even with a Tung Ho supplied “spreadsheet to automate calculation”) the suitability of steel only qualified for use in “general structures” (i.e. SS400), for use in “welded structures” (ie. SM400) is highly unlikely. Any ‘evidence’ of this ‘practice’ (including evidence of alleged sales) is intrinsically unreliable and the Commission will need to fully understand the context of these sales, including all associated warranties and indemnities supporting it.

The key question for the Commission is whether or not Grade SM400 commands a higher price (due to its suitability for welding) to SS400 in the Taiwanese market. If it does, then it is not feasible that customers would accept SS400 certified products for the price of grade SM400 on the basis of a calculation using individual chemical element results from a batch test certificate.

4. Other requirements differentiating MCC “category 4” goods

Tung Ho has further claimed that Grades SM400A and SM400B are in MCC “category 4” (*Carbon Steel for Welded Structure*) due to additional requirements ascribed to their semi-finished goods “such as, Low Phosphor & Sulphur content, P_{CM} requirement, and TMCP process, not required by AS/NZS 3679.1 and other carbon steel for general structures standards.” These properties referred to are misleading and irrelevant:

- **Low Phosphor & Sulphur content** – the maximum limits ascribed to SM400A and SM400B for the impurity elements phosphorus and sulphur are 0.035%. These are not special “low limits” – the maximum limits for export Grades 300 and 350 are 0.005% higher at 0.040%. Grade SS400 is the anomaly with maximum limits set at 0.050% - in keeping with the lack of chemical specifications for this grade, it is not a grade requiring chemical control as shown by the extract from Tung Ho’s chemical specifications below:

化學特性

^(a)CNS、JIS&ASTM結構用材質規範-化學性質
^(a)CNS、JIS&ASTM Structural Steel Specifications-Chemical Property

規格 Standard	材質代號 Steel Grade	厚度 thickness (mm)	化學成分 Chemical Composition (%) max				
			碳C	矽Si	錳Mn	磷P	硫S
銲接結構用鋼 Rolled steels for welded structure ^(a) (CNS 2947 G3057-103) (JIS G3106-2008)	SM400A		0.23	-	≥ 2.5C ^(a)	0.035	0.035
	SM400B		0.20	0.35	0.60-1.50	0.035	0.035
	SM490A		0.20	0.55	1.65	0.035	0.035
	SM490B		0.18	0.55	1.65	0.035	0.035
	SM490YA	t ≤ 40	0.20	0.55	1.65	0.035	0.035
		40 < t ≤ 50					
SM490YB	t ≤ 40	0.20	0.55	1.65	0.035	0.035	
	40 < t ≤ 50						
(CNS 2947 G3057-103 附錄C)	SM400A-A	t ≤ 50	0.23	0.35	≥ 2.5C ^(a)	0.035	0.035
	SM400B-A	t ≤ 50	0.20	0.35	0.60-1.35	0.035	0.035
	SM490A-A	t ≤ 50	0.20	0.40	0.80-1.50 ^(a)	0.035	0.035
	SM490B-A	t ≤ 50	0.20	0.40	0.80-1.50 ^(a)	0.035	0.035
一般結構用鋼 Rolled steels for general structure ^(a) (CNS 2473 G3039-103) (JIS G3101-2010)	SS400		-	-	-	0.050	0.050

Source: Non-Confidential Attachment B

¹² EPR Folio No. 499/031 and EPR Folio No. 505/023 at p2

- P_{CM} requirement

The Japanese Standard JIS G3106:2008 relevant to grades SM400A and SM400B defines an alternative calculation to CEV for weld cracking susceptibility. This calculation is designated as P_{CM} and is applied “*instead of carbon equivalent subject to the agreement between the purchaser and the supplier*”¹³ and application appears limited to grade SM570 and thermomechanically treated steel plate.

- TMCP process

The Japanese Standard JIS G3106:2008 relevant to grades SM400A and SM400B references heat treatments “such as thermomechanical control process may be applied under the agreement between the purchaser and the supplier.”¹⁴ Where heat treatments (a further value add process) are applied to the products they are assigned the designation “TMC” after the grade name.

These requirements haphazardly introduced by Tung Ho as justification for exclusion of grades produced to AS/NZS 3679.1 from a welded structure category are entirely irrelevant in terms of MCC categories for consideration in these HRS matters.

In summary, the Commission is urged to properly consider the classification provided¹⁵ by Liberty Steel of Tung Ho grades based on the mandatory minimum yield strength (per relevant Standard) criteria as requested by the Commission for model matching purposes and is encouraged to engage an independent, technical subject matter expert to clarify any uncertainty around grade mapping for model matching. Irrespective of similarities in semi-finished costs to produce various grades, HRS is marketed, priced and sold on the basis of the (relevant Standard) mechanical and chemical properties it is certified to have been produced to. Identifying the most comparable domestic grades for sales price comparison to the export grade/s remains the fundamental starting point for a reliable dumping margin calculation.

FOR AND ON BEHALF OF

THE AUSTRALIAN INDUSTRY APPLICANT

¹³ CONFIDENTIAL ATTACHMENT C at p. 4

¹⁴ CONFIDENTIAL ATTACHMENT C at pp. 3 – 4

¹⁵ EPR Folio No. 499/025 and EPR Folio No. 505/016 Attachment E