



HARMONIZED SYSTEM
REVIEW SUB-COMMITTEE

-
27th Session
-

NR0381E1
(+ Annexes I to III)
O. Eng.

Brussels, 3 March 2003.

POSSIBLE CREATION OF A NEW HEADING FOR SEMICONDUCTOR AND
FLAT PANEL DISPLAY MANUFACTURING EQUIPMENT

(PROPOSALS BY THE US AND THE EC)

(Item III.B.12 on Agenda)

Reference documents :

42.223 (RSC/18)
42.500, Annex A/3 (RSC/18 – Report)
NR0003E1 (RSC/19)

NR0042E1 (RSC/19)
NR0045E2, Annex A/2 (RSC/19 - Report)

I. BACKGROUND

1. At its 19th Session, the Review Sub-Committee discussed the possible separate identification of equipment for the manufacture of semiconductor devices and flat panel displays, and decided that it could not complete its work on this issue during the 2nd Review Cycle. Administrations were invited to continue examining this issue during the next review cycle.
2. By letters of 23 and 30 January 2003, respectively, the **United States** and the **EC** have presented proposals with a view to creating a separate heading for semiconductor and flat panel display manufacturing equipment. The notes setting out the proposals are reproduced in Annexes I and II to this document, respectively, whereas the usual layout of these proposals as well as alternative proposals prepared by the Secretariat, are reproduced in Annex III to this document.

II. SECRETARIAT COMMENTS

3. The Secretariat would first like to recall that the discussions held during the 19th Session were based on two proposals : one prepared by the Secretariat using, as a basis, a proposal presented by **Japan** and another by the **Japanese** Administration. Both proposals, which were reproduced in Docs. NR0003E1 and NR0042E1, respectively,

Note : Shaded parts will be removed when documents are placed on the WCO documentation database available to the public.

File No. 2581

suggested the creation of (i) a new heading 84.85 for machines and apparatus for the manufacture of semiconductor devices and flat panel displays, and (ii) a new heading 90.33 for instruments and apparatus for testing, measuring, inspecting or checking semiconductor devices and flat panel displays.

4. The current **US** proposal appears to be based on this concept, although it does not provide for a new heading 90.33, despite the reference to this heading in proposed new Note 1 (c) to Chapter 85 (see paragraph 35 below).
5. The **EC**, in its proposal, has combined the two groups of equipment in a new heading XX.XX (i.e., apparatus for the manufacture, inspection, measuring or checking of semiconductor wafers, devices or flat panel displays). The **EC** has not indicated whether this heading should be located in Chapter 84, 85 or 90, but the Secretariat assumes that Chapter 84 would be the appropriate place. It has, therefore, placed the proposed heading in Chapter 84 and numbered as 84.85. Of course, consequential amendments (similar to those suggested by the **United States**) are to be made to the relevant Notes and headings or subheadings if the **EC** proposal is adopted.
6. Hereafter, the Secretariat presents its comments in the order of the amendments proposed by the **United States**.

Notes 2 (a) and 2 (c) to Section XVI (US proposal)

7. The proposal to replace the reference to heading 84.85 by a reference to heading 84.86 is a consequential amendment of renumbering current heading 84.85.

Notes 1 (b) and 1 (c) to Chapter 84 (US proposal)

8. The **United States** has proposed the insertion of an exclusion in Notes 1 (b) and 1 (c) to Chapter 84 with a view to ensuring the classification of articles of ceramic material or of glass, in proposed new heading 84.85. The Secretariat is not sure about the precise scope of this proposal, since the term “articles” not only covers apparatus of ceramic material or of glass, but also ceramic or glass parts of apparatus of proposed heading 84.85. Moreover, the term would also cover accessories of the apparatus of proposed heading 84.85, since the **United States** has suggested including this category of commodities in that heading as well. On the other hand, articles (be they apparatus or parts of apparatus) of vulcanised rubber, of leather or of textile material (which are excluded from Section XVI by Notes 1 (a), 1 (b) and 1 (e) to that Section), will continue to be excluded.
9. In this context it should be noted that the **US** proposal provides for the classification of parts (and accessories) solely or principally used with the machines and apparatus of heading 84.85, in that heading subject to Note 2 to Section XVI (emphasis added) (see **US** proposal for new Note 9 (d) to Chapter 84 below). The Secretariat understands that with this provision and with the proposed amendment to Notes 1 (b) and 1 (c) to Chapter 84, if adopted, articles of, for example, glass remain excluded from Chapter 84 if they are of a kind described in Notes 2 (a) and 2 (c) to Section XVI, but will be included in proposed heading 84.85 in other cases.

Note 2 to Chapter 84 (US proposal)

10. The **United States** has proposed to insert a reference to proposed heading 84.85 in Note 2 to Chapter 84 with a view to ensuring the classification in heading 84.85 of machines and apparatus which answer to the description of that heading and at the same time to a description in one or other of the headings 84.25 to 84.80. The Secretariat had suggested a similar provision in paragraph 9 of Doc. NR0003E1 (i.e., adding the expression “or 84.85”

after “headings 84.01 to 84.24”). However, on further reflection, the Secretariat considers that the amended wording might create a conflict between classification in one of the headings 84.01 to 84.24 on the one hand, and in heading 84.85 on the other. Moreover, since proposed new Note 9 to Chapter 84 would prioritise classification under heading 84.85, it appears that there will no longer be a need to specify it in Note 2 to Chapter 84. However, if the Sub-Committee considers that it would be appropriate to have a reference to new heading 84.85 in Note 2, the Secretariat suggests, as an alternative, the following text for the first paragraph (the amended parts have been underlined) :

“Subject to the operation of Note 3 to Section XVI and subject to Note 9 to this Chapter, a machine or appliance which answers to a description in one or more of the headings 84.01 to 84.24, or to the description of heading 84.85 and at the same time to a description in one or other of the headings 84.25 to 84.80 is to be classified under the appropriate heading of the former group or under heading 84.85, as the case may be, and not the latter.”

New Note 9 to Chapter 84

11. Both proponents (**US** and **EC**) have suggested that a (Section or Chapter) Note should give further clarification concerning (i) the scope of the new heading and (ii) the fact that classification in that heading should take priority over classification in any other heading of the Nomenclature. The Secretariat agrees that it would be more appropriate to create a new Note to Chapter 84 clarifying the scope of new heading 84.85 so as to avoid lengthy heading texts. With respect to that proposed Note, the Secretariat would like to offer the following comments.
12. Both proposals limit the scope of proposed heading 84.85 by using the qualifier “solely or principally” in connection with the use of the machines and apparatus. The Secretariat agrees to use this expression in the proposed new Note, since this would solve the problem of the classification of equipment also usable for other purposes.
13. In terms of describing the scope of proposed heading 84.85, the **US** proposal expands the expression “manufacture of semiconductor devices, electronic integrated circuits and flat panel displays” to also cover (i) the manufacture and repair of masks or reticles used in the manufacture of semiconductor devices, etc., and (ii) the transport, handling or storage of semiconductor devices, etc. The **EC**, in its proposal for new Note 9, restricts the scope of proposed heading 84.85 to manufacture only, although the heading text also refers to inspection, measuring and checking. The **United States**, on the other hand, excludes testing, measuring or checking equipment from heading 84.85 (see paragraphs 29 and 30 below).
14. The Secretariat wonders whether it is necessary to refer in the Note to machines for the manufacture and repair of masks and reticles used in the manufacture of semiconductor devices, etc. It understands that this type of machine is already covered by the term “manufacture”, and would, therefore, be in favour of inserting this reference in the Explanatory Note to proposed heading 84.85. The Sub-Committee is invited to express its view on this question.

15. Except for the reference to handling machinery, which is currently classified in headings 84.27 and 84.28, the Secretariat is not familiar with the expressions “machines used for transport” and “machines used for storage” as suggested in the **US** proposal and has some problems in understanding their exact scope. Since the expression “machines used for transport” might include transport equipment of Section XVII, such material would be transferred from that Section due to the priority given to classification in proposed heading 84.85. The Secretariat is not aware of a machine for storage and invites the **United States** to clarify this point.
16. The Secretariat has some difficulty in accepting proposed sub-paragraph (d) of the **US** proposal to include parts and accessories in the definition of “machines and apparatus (. . .)”. By virtue of Note 2 (b) to Section XVI, parts of proposed heading 84.85 will only be classified in that heading if they are suitable for use solely or principally with a particular machine, or with a number of machines of heading 84.85. Other parts are classified in their appropriate heading (Note 2 (a)) or in headings 84.86 (renumbered current heading 84.85) or 85.48 (Note 2 (c)). The Secretariat suggests, therefore, not incorporating this part of the **US** proposal in new Note 9.
17. The same sub-paragraph in the **US** proposal also refers to “accessories”. Since it is apparently the intention to cover equipment covered by the ITA in heading 84.85, a reference to accessories seems to be improper, given that the ITA does not cover accessories of machines. Moreover, it might be difficult to distinguish articles as being accessories solely or principally used with the machines of heading 84.85. The **EC** proposal, on the other hand, does not refer to accessories. That being said, the Secretariat would prefer not to incorporate a reference to “accessories” in the new Note nor in the text of heading 84.85 or one of its subheadings.
18. It is to be noted that in the **US** proposal the definitions of “diodes, transistors and similar semiconductor devices” and “electronic integrated circuits” as provided for in Notes 5 (A), 5 (B) (a) and 5 (B) (b) to Chapter 85, should be applied for the purposes of proposed Note 9. In addition, the expression “semiconductor devices” as used in the new Note would also cover monocrystal semiconductor boules or wafers, photosensitive semiconductor devices and light emitting diodes. The Secretariat understands this proposal as comprising the devices classified in heading 85.41 (except for mounted piezo-electric crystals) in the description.
19. The **EC**, on the other hand, describes the expression “semiconductor devices” as those specified in Note 5 to Chapter 85. From the presentation it is not clear whether it refers to Note 5 (A) only, which covers in broad terms the semiconductor devices, or also to part (B) of that Note, which describes the expression “electronic integrated circuits and microassemblies”. Moreover, Note 5 (A) covers only part of the scope of heading 85.41, i.e., the semiconductor devices and not the photosensitive semiconductor devices and light emitting diodes. Finally, it should be noted that Note 5 to Chapter 85 is also under consideration in the context of restructuring Chapters 84, 85 and 90 (see item III.A.1 on Agenda). Any amendments to the scope of that Note may influence the scope of the proposed new Note 9.
20. Having said this, the Secretariat would be in favour of being more precise in describing the scope of the expressions “diodes, transistors and similar semiconductor devices” and “electronic integrated circuits” in new Note 9, which could be done on the basis of the **US** proposal. The Secretariat has prepared an alternative text, which is reproduced in Annex III to this document (see also paragraph 27 below).

21. The Secretariat has some doubts whether the proposed wording for the definition of “flat panel displays” as suggested by the **United States** is appropriate and workable. First, reference is made to the term “unit”. From the context it appears that the displays at issue are in fact articles which need further processing to become an output unit for an automatic data processing machine, a television receiver, a video monitor or similar apparatus. The Secretariat considers, therefore, that the term “unit” would be inappropriate.
22. Second, since the description is self-explanatory in terms of the word “display”, the Secretariat would be inclined to refer to the applied technique only. It suggests referring to flat panel displays as “liquid crystal displays, light emitting diode displays, gas discharge plasma displays, electro-luminescent displays and vacuum fluorescent displays”.
23. The **EC** suggests referring to “flat panel displays (as specified in heading xx.xx)” (emphasis added). Since flat panel displays are not mentioned in the current Nomenclature or in any proposed amendments, the Secretariat is reluctant to insert this reference in the description. However, an alternative text with respect to the description of flat panel displays, is reproduced in Annex III (see also paragraph 27 below).
24. With respect to the **EC** proposal to insert the Note either at the Section level or at the Chapter level, the Secretariat would suggest placing it at the Chapter level, given the nature of the Note (i.e., describing the scope of a particular heading), and numbering it as new Note 9 to Chapter 84 (similar to the number proposed by the **United States**). The reference to new heading XX.XX in the **EC** proposal has been replaced by a reference to heading 84.85 (see also paragraph 5 above). The duly amended **EC** proposal is reproduced in Annex III to this document.
25. The Secretariat feels that the first sentence of the Note proposed by the **EC** is ambiguous, since it refers to “apparatus solely or principally designed for the manufacture” (emphasis added), whereas the expression used in proposed heading 84.85 refers to “apparatus for the manufacture, inspection, measuring or checking” (emphasis added). The **EC** may wish to clarify this point.
26. Finally, the expression “This heading” at the beginning of the last sentence of the **EC** proposal could be ambiguous given the fact that the text in brackets at the end of the penultimate sentence also refers to a heading.
27. Taking into account the observations above, the Secretariat suggests an alternative text, which has been placed in square brackets in Annex III, together with the texts proposed by the **US** and the **EC**. The wording used would avoid any ambiguity concerning the scope of the Note or of the heading concerned, and would also avoid a possible conflict with the provisions of Note 1 (a) to Section XVI. Finally, it would be consistent with similar provisions elsewhere in the Nomenclature. The proposed alternative could read as follows :
- “9.- Heading 84.85 applies only to machines and apparatus which are solely or principally used for the manufacture[, inspection, measuring or checking] of semiconductor wafers, of semiconductor devices, of electronic integrated circuits or of flat panel displays.
- Notes 5 (A), 5 (B) (b) and 5 (B) (c) to Chapter 85 also apply with respect to the expressions “diodes, transistors and similar semiconductor devices” and “electronic integrated circuits” as used in this Note and in heading 84.85. However, for the purposes of this Note and of heading 84.85, the expression “semiconductor devices” also covers photosensitive semiconductor devices and light emitting diodes.

For the purposes of this Note and of heading 84.85, the following expressions have the meanings hereby assigned to them :

(a) **Semiconductor wafers**

Monocrystal semiconductor boules or wafers.

(b) **Flat panel displays**

Liquid crystal displays, light emitting diode displays, gas discharge plasma displays, electro-luminescent displays and vacuum fluorescent displays.

Subject to Note 1 (a) to Section XVI, goods answering to the description in heading 84.85 are to be classified in that heading and in no other heading of the Nomenclature.”

Subheadings 8456.9 to 8456.99

28. The content of subheading 8456.91 will be transferred to new heading 84.85. Consequently, this subheading should be deleted and the structure of subheading 8456.9 should be revised, as suggested by the **United States**.

Heading 84.85

29. The **United States** has proposed to refer to “machines and apparatus for the manufacture”, whereas the **EC** has suggested to refer to “apparatus for the manufacture, inspection, measuring or checking”, thus transferring inspection, measuring or checking apparatus from Chapter 90. If the Sub-Committee agrees to have the two types of machinery and apparatus in a single heading in Chapter 84, the Secretariat suggests inserting a reference to this heading in the exclusions of Note 1 to Chapter 90 (see Annex III to this document).

30. With respect to the proposed wording, the Secretariat would be in favour of using the expression “machines and apparatus” (**US** proposal) rather than “apparatus” (**EC** proposal). It also prefers to use the conjunction “or” instead of “and” between “electronic integrated circuits” and “flat panel displays”, and to repeat the preposition “of”. To clarify the scope of the heading, the Secretariat suggests referring to (i) “semiconductor wafers”, (ii) “semiconductor devices”, (iii) “electronic integrated circuits” and (iv) “flat panel displays”. This would result in the following text for heading 84.85, which is reproduced in Annex III as an alternative :

“Machines and apparatus for the manufacture[, inspection, measuring or checking] of semiconductor wafers, of semiconductor devices, of electronic integrated circuits or of flat panel displays.”

Structured nomenclature of proposed heading 84.85

31. The Secretariat would be in favour of the **EC** proposal, because of its simplicity. The **United States** has not indicated why a detailed structured nomenclature, as suggested in its submission, would be necessary. In its alternative proposal, the Secretariat has inserted a reference to “electronic integrated circuits” in proposed subheadings 8485.20 and 8485.50 to reflect the heading text and to be more precise. In this alternative proposal, it has renumbered the proposed code numbers to take into account the fact that code numbers 8485.10 and 8485.90 are currently used for completely different commodities.

32. If the Sub-Committee opted for the **US** proposal, the following should be considered. First, proposed code number 8485.10 cannot be used, since it is in use currently (this also applies to the **EC** proposal, if it is to be inserted as a new heading 84.85) (see paragraph 31 above). The Secretariat has duly amended the code numbers in these proposals in Annex III. Second, the text of proposed subheading 8485.42 may read “Step and repeat aligners” (emphasis added), which is the current text of subheading 9010.42. The Secretariat has placed this term and the one proposed by the **United States** in square brackets in the **US** proposal in Annex III (English version only).
33. The **United States** has suggested inserting a subheading for parts and accessories. As explained in paragraph 17 above, the Secretariat is not in favour of having accessories classifiable in this heading. In its alternative proposal it has, therefore, refrained from inserting this term in subheading 8485.80. The **EC**, in its proposal, also refrained from mentioning accessories at the subheading (and also at the heading) level.

Explanatory Note to heading 84.85

34. The **EC** has presented a draft Explanatory Note to new heading 84.85 (see Annex II). The Secretariat, while recognising that amendments to the Explanatory Notes are certainly needed, would suggest refraining from drafting it, pending the outcome of the discussions on the scope of the heading, in particular with respect to equipment for the inspection, measuring or checking, which are not referred to in the **EC** submission. The appropriate amendments to the Explanatory Notes could be drafted once the Sub-Committee has agreed on the scope of the heading. Nonetheless, the Secretariat considers the submission to be very helpful when discussing the scope of the new heading.

Note 1 (c) to Chapter 85 (US** proposal)**

35. The **United States** suggested inserting a reference to heading 90.33 in new Note 1 (c) to Chapter 85. This proposal is apparently based on the idea of having a separate heading in Chapter 90 for apparatus for checking, etc. of semiconductor devices. However, the **United States** has not proposed such a heading. The **United States** and other interested parties are invited to express their view on the question whether or not a separate heading for apparatus for the inspection, measuring or checking of semiconductor wafers, semiconductor devices or flat panel displays should be created. In this context it should be noted that the **EC** has suggested merging the machines for the manufacture with those for checking in a single heading. Pending the outcome of the discussions, the Secretariat has put the reference to heading 90.33 in proposed new Note 1 (c) to Chapter 85, in square brackets.
36. The Secretariat also suggests to refer to “machines and apparatus”, this being the wording of proposed new heading 84.85. An alternative text is reproduced in Annex III.

Subheadings 8543.1 to 8543.19

37. The content of subheading 8543.11 will be transferred to new heading 84.85. Consequently, this subheading should be deleted and the structure of subheading 8543.1 should be revised. It is to be noted, however, that code number 8543.10 was in use until 1996. However, given the current structure, it will be difficult to use another code number than 8543.10 if the one dash subheading is to be retained. Reported world trade volumes during the years 1997 to 2000 in current subheading 8543.19 :
- 1997 : 65,872,000 USD
 - 1998 : 87,106,000 USD
 - 1999 : 74,573,000 USD
 - 2000 : 83,075,000 USD.

Note 1 (g) to Chapter 90

38. The **United States** suggests inserting a reference to “articles of heading 84.85” in Note 1 (g) to Chapter 90. The Secretariat would prefer to use the terms of the heading, i.e., “machines and apparatus of heading 84.85”. The alternative text is reproduced in Annex III.

Note 2 (a) to Chapter 90

39. The amendment proposed by the **United States** is a consequence of renumbering current heading 84.85.

Heading 90.10 and subheadings 9010.4 to 9010.49

40. The amendments to the heading and to the structured nomenclature are the result of transposing the apparatus at issue to new heading 84.85.

III. CONCLUSION

41. The Sub-Committee is invited to examine the **US** and **EC** proposals to amend the Nomenclature, as set out in Annexes I and II to this document, taking into account the comments of the Secretariat in paragraphs 3 to 40 above, and, in particular, to express its view on the following issues :
- (a) Whether or not proposed heading 84.85 (or 84.86, as the case may be) should cover parts and accessories of ceramic material or of glass (see paragraphs 8 and 9 above);
 - (b) Whether Note 2 to Chapter 84 should be amended and if so, how (see paragraph 10 above);
 - (c) Whether new Note 9 to Chapter 84 should include a reference to machines and apparatus for the manufacture and repair of masks and reticles (see paragraph 14 above);
 - (d) Whether heading 84.85 should include “machines used for transport or for storage”, and if so, whether they should be mentioned in new Note 9, as suggested by the **United States** (see paragraph 15 above);
 - (e) Whether or not the definition of machines and apparatus should include a reference to parts and accessories (see paragraphs 16, 17 and 33 above);
 - (f) The scope of the expressions “semiconductor devices” (see paragraphs 18 to 20 above) and “flat panel displays” (see paragraphs 21 to 23 above);
 - (g) Whether or not machines and apparatus for inspection, measuring or checking of the semiconductor and flat panel displays should be included in heading 84.85 (see paragraph 29 above) or, alternatively, a separate heading in Chapter 90 should be created (see paragraph 35 above);
 - (h) The wording of proposed heading 84.85 (see paragraph 30 above); and
 - (i) The wording of proposed Note 1 (c) to Chapter 85 (see paragraphs 35 and 36 above) and Note 1 (g) to Chapter 90 (see paragraph 38 above).

42. The proposed amendments, together with the proposed alternatives and texts in square brackets are set out in Annex III to this document.

* * *

**US ADMINISTRATION PROPOSAL TO CREATE A NEW HEADING FOR
SEMICONDUCTOR AND FLAT PANEL DISPLAY MANUFACTURING EQUIPMENT**

The **United States** submits the following proposal for consolidating equipment for the manufacture of semiconductors and flat panel displays into a single heading. We supported a similar proposal submitted by the **Japanese** administration during the second review cycle, and we have attempted in this proposal to respond to some of the concerns that were raised by administrations.

SECTION XVI.

1. Note 2 (a).

Delete the reference to heading "84.85" and substitute "84.86" in lieu thereof.

2. Note 2 (c).

Delete the reference to heading "84.85" and substitute "84.86" in lieu thereof.

CHAPTER 84.

1. Notes 1 (b) and (c).

Insert the following at the beginning of each of these notes :

"Except for the articles of heading 84.85,".

2. Note 2. First Sentence. Second line.

Add the expression "or 84.85" after "headings 84.01 to 84.24".

3. New Note 9.

Insert the following new Note 9 :

"9. For the purposes of heading 84.85, the expression "machines and apparatus for the manufacture of semiconductor devices, electronic integrated circuits and flat panel displays" covers :

- (a) machines and apparatus solely or principally used for the manufacture of monocrystal semiconductor boules or wafers, diodes, transistors and similar semiconductor devices, photosensitive semiconductor devices, light emitting diodes, electronic integrated circuits and flat panel displays,
- (b) machines and apparatus solely or principally used for the manufacture and repair of masks and reticles used in the manufacture of diodes, transistors and similar semiconductor devices, photosensitive semiconductor devices, light emitting diodes, electronic integrated circuits and flat panel displays, and
- (c) machines solely or principally used for transport, handling or storage of monocrystal semiconductor boules or wafers, diodes, transistors and similar semiconductor devices, photosensitive semiconductor devices, light emitting diodes, electronic integrated circuits, flat panel displays,

glass substrates for the foregoing and masks and reticles used in the manufacture of the foregoing,

- (d) subject to Note 2 to Section XVI, the parts and accessories solely or principally used with such machines and apparatus.

For the purposes of this Note, the terms "diodes, transistors and similar semiconductor devices" and "electronic integrated circuits" shall be applied in conformance with the definitions set forth in Note 5 to Chapter 85. Also for the purposes of this note, the term "flat panel displays" refers to units which display images, whether representing pictures or text, by controlling individual picture elements (pixels) which are laid out in a uniform pattern of rows and columns. Flat panel displays include those utilising such display technologies as liquid crystals, light emitting diodes, gas discharge plasma, electroluminescence, and vacuum fluorescence. It does not cover displays which utilize cathode-ray technology. The term "flat panel display" does not refer to the finished goods into which they are incorporated, such as display monitors for automatic data processing machines, display screens for laptop computers, television receivers or video monitors.

For the classification of the machines and apparatus defined in this Note, heading 84.85 shall take precedence over any other heading in the Nomenclature which might cover them by reference to, in particular, their function. This heading does not, however, cover testing, measuring or checking instruments and apparatus of Chapter 90."

4. Subheadings 8456.9 to 8456.99.

Delete and substitute :

"8456.90 - Other".

5. Heading 84.85 and subheadings 8485.10 and 8485.90.

Renumber heading "84.85" as heading "84.86" and subheadings "8485.10" and "8485.90" as subheadings "8486.10" and "8486.90", respectively.

6. New heading 84.85 and subheadings 8485.10 to 8485.90.

Insert the following new heading and subheadings :

84.85 Machines and apparatus for the manufacture of semiconductor devices, electronic integrated circuits and flat panel displays, as defined in Note 9 to this Chapter :

8485.10 - For manufacturing (but not further processing) monocrystal semiconductor boules or wafers

8485.20 - For manufacturing or repairing masks or reticles

8485.30 - For manufacturing (but not further processing) glass substrates used in the production of flat panel displays

- For projection or drawing of circuit patterns on sensitised semiconductor materials :

8485.41 - - Direct write-on-wafer apparatus

8485.42 - - Step and repeat apparatus

8485.49 - - Other

- Other, for processing (but not assembling) wafers or glass substrates, including cleaning and polishing machines and apparatus :

8485.51 - - For dry-etching patterns on semiconductor materials

8485.52 - - Ion implanters for doping semiconductor materials

8485.53 - - Other, for processing wafers

8485.54 - - Other

- Other :

8485.61 - - For assembling semiconductor devices

8485.62 - - For assembling flat panel displays

8485.69 - - Other

8485.90 - Parts and accessories".

CHAPTER 85.

1. Note 1 (b).

Delete "or" at the end.

2. New Note 1 (c).

Insert the following new Note 1 (c) :

"(c) Machinery, instruments and apparatus of heading No. 84.85 or 90.33; or".

Reletter present Note 1 (c) as 1 (d).

3. Subheadings 8543.1 to 8543.19.

Delete and substitute the following subheading :

"8543.10 - Particle accelerators".

CHAPTER 90.

1. Note 1 (g).

Insert at the end :

“articles of heading 84.85;”.

2. Note 2 (a). Second line.

Delete "(other than heading No. 84.85, 85.48 or 90.33)" and substitute "(other than heading No. 84.86, 85.48 or 90.33)".

3. Heading 90.10. Heading Text.

Delete "(including apparatus for the projection or drawing of circuit patterns on sensitised semiconductor materials)".

4. Subheadings 9010.4 to 9010.49.

Delete these subheadings.

* * *

EC PROPOSAL

Subject: Proposal for creating a new heading for semiconductor and flat panel display manufacturing equipment

Background

1. In the context of the WCO **Japan** made a proposal during the 3rd HS review cycle according to which certain types of semiconductor and flat panel display manufacturing equipment would be grouped in a single HS heading. The proposal was not accepted by the Review Sub-Committee.
2. Amongst the products referred to in the attachments to the Ministerial Declaration on Trade in Information Technology Products – ITA (Singapore, 13 December 1996) are certain types of semiconductor and flat panel display manufacturing equipment. Many of these products are referred to as Attachment B items, i.e., specific products to be covered by the ITA wherever they are classified in the HS. Because of their technicalities there has been a great deal of discussion on the divergent classification of these products.

Reasons for the proposal

3. The **EC** has concluded that trade in semiconductor and flat panel display manufacturing equipment has become very important.
4. Consequently, it would be very useful to group the said equipment under a single heading. The creation of a HS heading for such equipment would facilitate trade, in particular by making classification easier both for economic operators and customs authorities. Furthermore, it is likely to improve the collection and provision of statistical data.
5. The **EC** proposal is based on the **Japanese** proposal but with fewer subheadings for the following reasons :
 - (1) Classification of existing types of equipment in a few HS subheadings should become easier, in particular as the issue of principal function for multifunctional equipment will be less controversial;
 - (2) Classification of new types of equipment will be facilitated given that classification issues will focus on one HS heading and not a number of HS subheadings in Chapters 84 and 85; a few subheadings mean further facilitation;
 - (3) Correct statistical information on trade in such equipment is important. The equipment is not traded in great quantities although the value is high. By avoiding the creation of subheadings for specific types of equipment, available trade data should not be affected by the issue of confidential data.
 - (4) Details of the various types of equipment included in this heading could be listed as a non-exhaustive list in the HS Explanatory notes for guidance.

New Section/Chapter Note

Heading XX.XX covers apparatus solely or principally designed for the manufacture of semiconductor wafers, semiconductor devices (as specified in Note 5 to Chapter 85) and flat panel displays (as specified in heading xx.xx). This heading shall take precedence over any other heading in the nomenclature which might cover the function of the above mentioned products.

STRUCTURE

<i>Heading no</i>	<i>HS code</i>	
XX.XX		Apparatus for the manufacture, inspection, measuring or checking of semiconductor wafers, devices or flat panel displays
	XXXX.10	- Apparatus for the manufacture of wafers
	XXXX.20	- Apparatus for the manufacture of semiconductor devices
	XXXX.30	- Apparatus for the manufacture of flat panel displays
	XXXX.40	- Apparatus for inspecting, measuring or checking semiconductor wafers, devices or flat panel display substrates
	XXXX.90	- Parts

Explanatory Notes to the HS

This heading includes :

- (1) Apparatus for the rapid heating of semiconductor wafers
- (2) Apparatus for the physical/chemical deposition of wafers or flat panel substrates
- (3) Bending, folding, straightening, flattening machines used in the manufacture of semiconductor devices
- (4) Machines for sawing monocrystal semiconductor boules into slices or wafers into chips
- (5) Machines for scribing or scoring semiconductor wafers
- (6) Machines for wet etching
- (7) Machines for dry etching patterns on semiconductor material or flat panel substrates
- (8) Apparatus for stripping, developing, cleaning semiconductor wafers or flat panel display substrates
- (9) Encapsulation equipment for semiconductor devices
- (10) Furnaces/ovens used in the manufacture of semiconductor devices

* * *