



HARMONIZED SYSTEM
COMMITTEE

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28th Session
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NC0482E1

O. Eng.

Brussels, 26 September 2001.

CLASSIFICATION OF PARTS OF APPARATUS FOR STRIPPING OR CLEANING

SEMICONDUCTOR WAFERS (REQUEST FROM THE WTO)

(Item VIII.14 on Agenda)

I. ORIGIN OF THE QUESTION

1. On 1 July 2001, the Secretariat received a note from the Chairman of the World Trade Organization (WTO) Committee of Participants on the Expansion of Trade in Information Technology Products, requesting WCO's opinion on the classification of certain commodities.
2. The classification of parts of apparatus for stripping or cleaning semiconductor wafers is one of the issues listed in the WTO request. The pertinent part of the Report of the Informal Meeting of Customs Experts from ITA Participants reads as follows :

“The respective host apparatus is # 122¹⁾.

The Group questioned 8424.90 as inappropriate based on the classification of the host apparatus. The US confirmed it did not classify in 8466.10 for this item, as the host apparatus involved stripping by gases and there are no tool-holders for gases.

The EC and US add 8479.90.”

3. Since the documentation received from the WTO did not include a description of the commodity at issue, the Secretariat contacted the International Chamber of Commerce (ICC) with a view to obtaining more information vis-à-vis the product. On 22 August the Secretariat received a submission from the ICC, indicating the following :

“While both the etching and stripping processes “remove material” from the surface of a wafer, the two processes are distinct and different. Etching typically removes selected

¹⁾ Secretariat note : Given the various subheadings referred to in the ITA Group Report (i.e., 8424.89, 8456.99, 8479.89 and 8543.30), it seems that no decision has been taken on the appropriate classification. The classification of the host apparatus is, however, not presented to the Committee for consideration.

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material to form a pattern via a mask such as photoresist, while stripping removes all of a layer of material and is typically used to remove a photoresist mask pattern after it has been used in an etch or ion implantation process. (. . .)

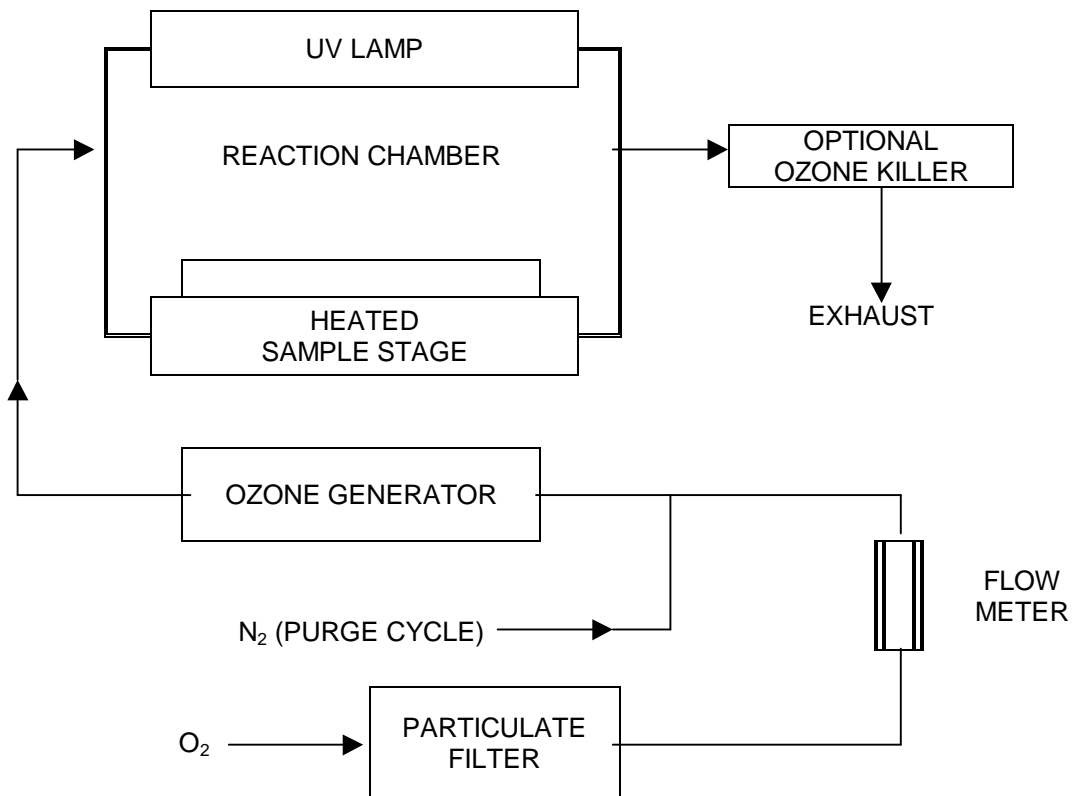
The photoresist is then removed (cleaned) using additional chemicals or plasma (. . .).”

4. The following process description is reproduced from one of the product sheets attached to the ICC submission :

“Dry, particulate-free oxygen is fed into a silent-discharge ozone generator. This internally generated ozone then flows into a cleaning chamber which contains a UV lamp and a heated sample stage. The spiral shape of the UV lamp and circular location of the ozone gas nozzles provide uniform UV irradiation and distribution of ozone across the substrate surface.

Ozone decomposes into oxygen molecules and atomic oxygen when exposed to long wavelength (200 – 300 nm) UV radiation. Simultaneously, organic materials such as photoresist, solvent residues, human skin oil and pump oil are excited or dissociated by the long wavelength UV radiation. The atomic oxygen is highly reactive and oxidizes the excited organic molecules to form simpler, harmless products such as carbon dioxide, water or nitrogen. This process cleans or removes organic contaminants from the substrate.”

Schematic



II. SECRETARIAT COMMENTS

5. The Secretariat would like to clarify first that no indication has been given (either by the ITA Group, or by the ICC) on the nature of the parts the Committee is requested to classify.
6. That being the case the Secretariat is not in a position to give its view on the classification, since it lacks a full description of the product(s) to be classified.
7. The Representatives of the WTO and other interested parties may wish to clarify the point referred to above.
8. With respect to the possible classification of the parent apparatus (which was, however, not requested by the WTO), the Secretariat feels that the apparatus does not fit within the description of heading 84.56. Since no other heading of Chapter 84 refers to the processes used in the apparatus, classification in heading 84.79 seems appropriate. Parts of machines of heading 84.79 not included in any of the headings of Chapters 84 and 85, are to be classified in subheading 8479.90, by virtue of Note 2 (b) to Section XVI.
9. In conclusion, the Secretariat is not in a position to present to the Committee with its view on the classification of parts of apparatus for stripping or cleaning semiconductor wafers, as requested by the WTO Group, due to the fact that no description of the parts at issue has been provided.

III. CONCLUSION

10. The Committee is invited to express its view on the classification of parts of apparatus referred to in paragraph 2 to 4 above, taking into account the comments of the Secretariat in paragraphs 5 to 9 above, and to indicate what action should be taken, if any.
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