

A ANJALEEM ENTERPRISES PVT. LTD.
v.
COMMISSIONER OF CENTRAL EXCISE, AHMEDABAD

JANUARY 16, 2006

B [ASHOK BHAN AND S.H. KAPADIA, JJ.]

C *Central Excise Act, 1944; Section 35L/Central Excise Tariff Act, 1985; Tariff Headings 85.17, 85.24 and 85.42; Note 6 to Chapter 85 of the Act; Note 2 to Section XVI/Exemption Notification No.84/89 dated 1.3.1989:*

D *Valuation—Computer based STD-PCO Unit with Programmed memory chip/EPROM—Levy of excise duty—Exemption Notification—Applicability of—Held: The subject matter of the levy is STD-PCO unit/the final product and not the programmed EPROM—EPROM constitute part/component of the complete unit—Price of the unit includes price of the component for the purpose of assessing the value of the unit—Since the complete unit cleared at factory gate includes its parts/component, EPROM classifiable under the same Tariff Heading 85.17—Hence Revenue rightly included the value of the programmed EPROM in the assessable value of the unit.*

E *Classification—Programmed EPROM—Tariff Heading 85.24 or 85.42—Held: EPROM is basically a chip/Integrated Circuit (IC) capable of performing various functions—IC makes a programme work when fixed in a Computer, hence classifiable under the Tariff Heading 85.42—Since software plays a dominant role in the working of floppy, a recorded media, it is classifiable under the Tariff Heading 85.24—Hence, Revenue rightly held that the*
F *Exemption Notification not applicable since EPROM is not a recorded media classifiable under Tariff Heading 85.24.*

Valuation—Ingredients of—Discussed.

G *IC/Chip vis-a-vis Floppy—Distinction between.*

IC, Mother Board, EPROM—Meaning of.

The questions which arose for consideration in this appeal filed by the assessee, manufacturer of STD-PCO Unit, were as to whether a

programmed or designed EPROM is an integral part of STD-PCO unit for the purpose of levying of Excise duty; and as to whether the assessee was entitled to exemption from payment of the excise duty in terms of the Exemption Notification No. 84/89 dated 1/3/1989. A

In order to claim exemption Notification, assessee was required to show that the programmed EPROM was a recorded medium classifiable under Tariff Heading 85.24 read with Note 6 to Chapter 85 of the Central Excise Tariff Act. B

Appellant-assessee contended that the STD-PCO unit was classifiable under CH 85.17 as electrical apparatus for line telephony; that the said equipment has an inbuilt microprocessor classifiable under CH 84.71; that in order to perform various tasks, the microprocessor requires a software/programme and the programme in question was developed by the assessee; that the programme was recorded on EPROM (a medium) classifiable under CH 85.42 as an integrated circuit; that he encoded the programme developed by him on the blank EPROM, which programme could be erased from ultra violet radiation; that the EPROM was not classifiable under CH 85.17 and accordingly, its value was not includible in the total assessable value of STD-PCO unit, because once a software stood recorded on the blank EPROM, the blank EPROM no longer be considered as an electronic integrated circuit; and that the essential character of the recorded EPROM was that of computer software classifiable under Chapter Heading 85.24 as a recorded media. C D E

Revenue submitted that note 6 to chapter 85 of the Act was not applicable to the computer-based device/STD-PCO unit, the final product; that as a programmed EPROM constituted an integral part of the STD-PCO unit, it did not fall under Chapter Heading 85.24; that the final product cleared from the factory gate of the assessee was STD-PCO unit which contained "the recorded EPROM"; that since the programmed ICs/EPROM were integral parts of the STD-PCO units, the assessee was not entitled to claim exemption under notification no.84/89. F

Dismissing the appeal, the Court G

HELD. 1.1. In the matter of valuation, one of the important aspects to be taken into account is the condition of the goods/product at the time the goods leave the factory. In the present case one has to see at the "condition" of STD-PCO unit at the time of clearance and, therefore, the H

A issue which arises for consideration, in the first instance, is whether the recorded EPROM was an essential component of the said STD-PCO unit for making it operational. [412-C-D]

B 1.2. The subject-matter of the levy is STD-PCO unit, as a final product and not the recorded EPROM. There can hardly be any doubt that the price of a component will form part of the final cost of the unit and hence includible in its assessable value. The manufacturer takes into account, in deciding the cost of the unit, the cost incurred for its manufacture and, therefore, unless the sale price of the unit is arrived at on a basis independent of the cost of manufacture (if law so permits) the cost of the recorded EPROM has got to be included in the assessable value of the unit. [412-F, H; 413-A]

C 1.3. Under note 2 to Section XVI of the Central Excise Tariff Act, parts or components of a machine are required to be classified with the machine which, in the present case, was STD-PCO unit classifiable under the heading 85.17. Accordingly, each of the units cleared from the factory by the assessee in its completed form which included the programmed EPROM was classifiable under tariff item 85.17. The line telephone device (unit) was not complete without the programmed EPROM for its functioning. Therefore, Revenue was right in classifying the unit under tariff item 85.17 and further it was right in including the value of the programmed/recorded EPROM in the assessable value of the unit.

E [413-C-D]

F 2.1. The assessee has claimed exemption therefore, the burden was on him to show that the programmed EPROM constituted a "recorded media" under tariff item 85.24. It is in this context that the matter was examined by the Revenue which came to the conclusion that EPROM was basically a chip or an IC classifiable under tariff item 85.42 and, therefore, on facts the authorities found that tariff item 85.24 had no application to the facts of this case. [413-F-G]

G 2.2. The main components of a computer system are Central Processing Unit, Memory and Disk Store. A floppy is a dumb storage box. It is different from a chip or an integrated circuit which performs intelligent functions. An integrated circuit (IC) is often referred to as a micro-chip or a chip. It is a miniaturized electronic circuit consisting of semi-conductor devices. A 'memory' is the most regular type of integrated circuit. Unlike a floppy or a disk (which is removable from the system)

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an 'IC' can function as an amplifier, timer, counter, computer memory and as a microprocessor. It is not easily removable. Therefore, an 'IC' or a chip cannot be compared to a floppy which is merely a storage device similar to an empty box or a suitcase. [414-A-B-C] A

Oxford Illustrated Encyclopaedia of Invention and Technology - 1992 Edition, page 183, referred to. B

www.en.wikipedia.org and www.whatis.com, referred to.

2.3. "EPROM" stands for Erasable Programmable ROM. The word 'ROM' is an acronym for 'Read Only Memory', a type of unchangeable memory residing in chips or the ICs on the mother board. The expression, "Read Only" means that CPU can read or retrieve the programmes written on the ROM chips. [414-E-F] C

"Computing Essentials" by Timothy J. O'Leary & Linda I. O'Leary - 2002 Edition and Illustrated Dictionary of Computing by Jonar C. Nader, 3rd Edition, referred to. D

utut.essortment.com, referred to.

2.4. A user can read and use the data stored in ROM, but cannot change them. When a computer is turned on, ROM supplies a series of instructions to CPU which in turn performs a series of tests. EPROM, on the other hand, is an erasable programmable ROM. Initially, users had to supply ROM vendor with an inter-connected program so that the vendor could build the ROM. To avoid this high set-up charge, manufacturers developed a user-programmable ROM (PROM). A 'PROM' is just like a ROM. Similarly, as an alternative, with the development of technology, in the year 1973 Intel Corporation came out with EPROM. When the chip was exposed to ultra-violet radiation the memory could be erased and replaced by a new memory. Therefore, EPROM is a re-writable memory chip. EPROM is a memory part which will not forget its program or data when power is removed. EPROM has to be programmed by a special programming product called an EPROM or a device programmer. The computer cannot store data in an EPROM because the EPROM is a READ ONLY memory part. [415-A-B-C; D-E] E
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Utut. Essortment.com; www.answers.com and www ar labs Com., referred to. H

A 2.5. In a disk operating system, the basic input is stored in a ROM which is transferred to RAM when the system gets started. The input/output routines are written into the IC at the factory. The ICs which contain semiconductor components have got to be embedded in the mother board. The ROM chip is fixed at the factory. The chip is fixed in the computer and only then the programme works. Hence, this is basic difference between a mere floppy which is a recorded media under CH 85.24 and the IC under CH 85.42. In the former case, the program is a software because a floppy is a storage in which software plays the dominant role whereas in the case of IC the programme is embodied in the IC which can perform various functions only when fixed to the mother board and is not removable like a floppy from VCR. [416-B-C-D]

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D 2.6. EPROM cannot be compared to a floppy. Floppy is a dumb box. That is not the case with EPROM. EPROM is basically an integrated circuit or a chip. EPROM is, therefore, classifiable as an integrated circuit under tariff item 85.42. An IC can function as an amplifier, oscillator, timer, microprocessor etc. On the other hand, a floppy disk is only a storage. Moreover the essential character of IC does not change with the programme being embedded in the IC and hence the IC remains classifiable under CH 85.42. [415-G-H; 416-A]

E *Encyclopaedia of Technology Terms by Whatis.com, referred to.*

Dictionary of Computing by Prentice Hall, referred to.

F 3. Even under HSN, entry 84.71 covers Data Processors, however, under the explanatory note it is clarified that devices working in conjunction with such processors have to be classified not under 84.71 but with reference to their specific function. Therefore, devices like ICs, as in the present case, which help the processor to function can only fall under 85.42 (in cases where such ICs are the final products) and where they form an integral part of a machine like STD-PCO unit, they have to be classified under heading 85.17, hence, it will not fall under heading 85.24 as claimed by the assessee. A disk with a programme is a software. However, a ROM with a particular circuit in which a programme is structured remains an IC. [417-D-E-F]

H *PSI Data Systems Ltd. v. Collector of Central Excise, [1997] 2 SCC 78; Sprint RPG India Ltd. v. Commissioner of Customs-I, Delhi. [2000] 2 SCC 486 and Commissioner of Central Excise v. Acer India Ltd., [2004] 8 SCC*

173, held inapplicable. A

Robert Gottschalk, Acting Commissioner of Patents v. Gary R. Benson,
409 US 63, referred to.

HSN - 2nd Edition, 1996, p. 1408, referred to.

4. In the present case, the levy is on a computer based embedded system. The software embedded in the programmed EPROM, which is an IC chip, constitutes the "brain" of the system. The programmed EPROM is an integral part of the system. The levy is on the unit. The levy is not on the programmed EPROM. The programme embedded is not easily removable. Hence, it will not fall in the category of recorded media under tariff item 85.24 and remains an IC under tariff item 85.42. B
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CIVIL APPELLATE JURISDICTION : Civil Appeal No. 2487 of 2000.

From the Judgment and Order No. C-2/3407/99 WZB dated 28.12.99 of the Customs Excise and Gold (Control) Appellate Tribunal West Regional Bench at Mumbai in Appeal No. E/1130 R/95 Bom. D

Ramesh Singh (Not Present), Ms. Inkle Barooah, Ms. Bina Gupta and Ms. Indrani Mukherjee for the Appellants.

T.M. Mohd. Yusuf, Ms. Binu Tamta, P. Sureshan and P. Parmeswaran for the Respondent. E

The Judgment of the Court was delivered by

KAPADIA, J. The following two questions arise for determination in this civil appeal filed by the assessee under Section 35-L(b) of the Central Excise Act, 1944 (for short 'the Act'): F

- (1) Whether a programmed or designed EPROM is an integral part of STD-PCO Unit; and
- (2) Whether the appellant herein was entitled to exemption under notification No.84/89 CE dated 1.3.1989 which required the appellant to show that the programmed EPROM was a "recorded medium" under chapter heading 85.24 read with note 6 to Chapter 85 of the 1985 Tariff Act. G

During the period October 1992 to March 1993 appellant was the H

A manufacturer of STD-PCO unit. The said unit was a computer based equipment. The said unit was used to identify the time of the day and day of the week, the time when the telephone calls were made; to recognize whether the phone was on-hook or off-hook and to record the duration of a call.

B The appellant filed classification list dated 29.5.1992 under which the appellant classified the above unit as an equipment under CH 85.17. In the said classification list, the appellant classified programmed memory chips. EPROM, under CH 85.24 and claimed exemption as a recorded medium under notification No.84/89 CE dated 1.3.1989.

C Vide show-cause notice (for short 'SCN') dated 2.4.1993 the Assistant Collector (AC) stated that the programmed memory chip was an integral part of STD-PCO unit, without which the unit was non-functional. According to the SCN, the programme recorded in the memory chip, EPROM, could be used with STD-PCO unit only in a particular telecom region and, therefore, the said chip was an essential component of the STD-PCO unit. According

D to the SCN, the appellant was not entitled to the benefit of exemption as the said chip was not covered under CH 85.24 as claimed by the appellant. According to the department, the said chip was classifiable as an integral part of STD-PCO unit under CH 85.17. Accordingly, the department called upon the appellant to show cause as to why duty amounting to Rs.21.50 lacs for the above period should not be recovered under section 11A of the Act.

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At this stage, we may clarify that on the question of extended limitation the appellant has succeeded and since the department has not come in appeal, we are not required to examine that aspect of the matter.

F By reply dated 24.5.1993, the appellant submitted that it had imported EPROMs from abroad or it had obtained EPROMs from the open market. According to the appellant, empty EPROMs were subjected to programming by the appellant who had designed a programme which was loaded into the blank EPROMs. The appellant submitted that a computer software is a designed programme recorded on a media commonly called as a "recorded medium".

G Such recorded medium can be played in a computer or in any other system based on microprocessors. The appellant conceded that STD-PCO unit was classifiable as an equipment under CH 85.17, however, it contended that the programmed EPROM was a "recorded medium" classifiable under sub-heading 8524.90. According to the appellant, a programmed EPROM was classifiable only under sub-heading 8524.90 in view of note 6 to chapter 85.

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notwithstanding the fact that such recorded media was equipped with or without an apparatus. It claimed exemption under notification No.84/89-CE dated 1.3.1989) on the ground that the said exemption notification gave exemption to softwares falling under heading 85.24 from whole of duty of excise. In the circumstances, the appellant contended that the department was not entitled to include the value of the programmed EPROM in the assessable value of STD-PCO unit and that the unit was classifiable under heading 85.17 whereas the programmed EPROM was classifiable under heading 85.24. The appellant contended, *inter alia*, that sub-heading 8524.30 covered recorded magnetic disks, such as, a floppy containing a computer programme whereas all other types of recorded media stood covered under sub-heading 8524.90 and, therefore, even if a recorded EPROM was considered to be an integral part of STD-PCO unit the recorded EPROM was required to be separately classified under sub-heading 8524.90 in view of note 6 to chapter 85. According to the appellant, even if a particular component or a part was most essential for a machine, it was not always classifiable with the machine, if otherwise, the said component came under a specific head for its classification. In this connection, reliance was placed on note 2 to section XVI of the schedule to the 1985 Tariff under which chapter 85 falls. Therefore, according to the appellant, in the present case, the programmed EPROM was a recorded media which fell under a specific entry, *viz.*, 8524.90 and, therefore, was not classifiable under heading 85.17. The appellant also contended that the programmed EPROM was a computer software under heading 85.24 and, therefore, the appellant was entitled to exemption under notification No.84/89 dated 1.3.1989.

By order dated 24.3.1994 the Assistant Collector held that EPROMs were integrated circuits (chips); that, the recorded EPROMs were meant for certain functions to be performed by STD-PCO unit; that, the recorded EPROMs were integral parts of STD-PCO unit and, therefore, such recorded EPROMs came under heading 85.17. In this connection, reliance was placed on note 2(a) to section XVI, under which chapter 85 fell. The AC further held that the appellant was not entitled to claim the benefit of exemption under notification dated 1.3.1989 because that notification warranted two conditions to be satisfied by the appellant, namely, that the product should be a computer software and it should fall under heading 85.24. The AC further held that recorded EPROMs were integrated circuits (ICs) under heading 85.42; that, even as a final product, and not as a component of STD-PCO unit, the said EPROM would fall under heading 85.42, therefore, in any view of the matter, the appellant was not entitled to exemption under

A notification dated 1.3.1989 read with tariff item 85.24. In the circumstances, it was held that the value of recorded EPROMs was includible in the assessable value of STD-PCO unit under heading 85.17.

The order passed by the AC was confirmed in appeal by the Collector (Appeals) and also by the tribunal. Hence this civil appeal.

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Shri Ramesh Singh, learned counsel appearing on behalf of the appellant submitted that the STD-PCO unit was classifiable under CH 85.17 as electrical apparatus for line telephony; that, the said equipment has an inbuilt microprocessor classifiable under CH 84.71; that, in order to perform various tasks, the microprocessor requires a software/programme; that, programme in question was developed by the appellant; that, the said programme was recorded on EPROM (a medium) classifiable under CH 85.42 as an integrated circuit; that, the appellant bought blank EPROMs from the market @ Rs.149/- each; that, the appellant encoded the programme developed by it on the blank EPROM, which programme was erasable by ultra violet radiation.

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According to the appellant, the said software was area specific. According to the appellant, the recorded EPROM was sold @ Rs.6450/-; that, the STD-PCO equipment was sold @ Rs.8453/-. Learned counsel submitted that the programmed EPROM was classifiable under CH 85.24; that, the said EPROM was not classifiable under CH 85.17 and accordingly, its value was not includible in the total assessable value of STD-PCO unit, because once a software stood recorded on the blank EPROM, the blank EPROM no longer continued to remain as electronic integrated circuit; that, the essential character of the recorded EPROM was that of computer software classifiable under CH 85.24 as a recorded media; and that, the only function of EPROM was that of a recorded media. In this connection, learned counsel placed reliance on

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the judgment of this court in the case of *Sprint RPG India Ltd. v. Commissioner of Customs-I, Delhi* reported in [2000] 2 SCC 486. Learned counsel further submitted that once the programmed EPROM stood classified under CH 85.24, then, even if it was cleared along with STD-PCO unit, classifiable under CH 85.17, the said EPROM remained classifiable under CH 85.24. In this connection, learned counsel placed reliance on note 6 to chapter 85.

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Reliance was also placed on the judgments of this court in the case of *Commissioner of Central Excise v. Acer India Ltd.* reported in [2004] 8 SCC 173 and in the case of *PSI Data Systems Ltd. v. Collector of Central Excise* reported in [1997] 2 SCC 78.

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Shri T.M. Mohd. Yusuf, learned senior counsel appearing on behalf of

the department, on the other hand, submitted that note 6 to chapter 85 was not applicable for the computer-based product, namely STD-PCO unit, as the programmed EPROM constituted an inbuilt component of the final STD-PCO unit. Learned counsel submitted that as a programmed EPROM constituted an integral part of the STD-PCO unit, such EPROMs did not fall under CH 85.24 as they were neither recorded media falling under CH 85.24 nor could they be cleared along with an apparatus as they constituted an integral part of the STD-PCO unit. Learned counsel submitted that what was cleared from the factory gate of the assessee was STD-PCO unit which contained a component called "the recorded EPROM". In this connection, reliance was placed on note 2(b) to section XVI in which chapter 85 falls. Learned counsel submitted that the programmed ICs were integral parts of the STD-PCO units without which the units were non-functionable. Hence, the appellant was not entitled to claim exemption under notification no.84/89 and the value of the programmed EPROM was includible in the value of the STD-PCO unit.

Before dealing with the arguments, it is necessary for us to set out the relevant entries from the Tariff Act, 1985 as under: -

SECTION XVI:

MACHINERY AND MECHANICAL APPLIANCES; ELECTRICAL EQUIPMENT; PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES.

Notes:

2. Subject to Note 1 to this Section, Note 1 to Chapter 84 and to Note 1 to Chapter 85, parts of machines (not being parts of the articles of heading No.84.84, 85.44, 85.45, 85.46 or 85.47) are to be classified according to the following rules:-

(b) Other parts, if suitable for use solely or principally with a particular kind of machine, or with a number of machines of the same heading (including a machine of heading No.84.79 or heading No.85.43) are to be classified with the machines of that kind. However, parts which are equally suitable for use principally with the goods of heading Nos.85.17 and 85.25 to 85.28 are to be classified in heading No.85.17.

A *CHAPTER 85: ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS. TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES.*

B *Notes:*

5. For the purposes of heading Nos.85.41 and 85.42:

C (a) “Diodes, transistors and similar semi-conductor devices” are semi-conductor devices the operation of which depends on variations in resistivity on the application of an electric field;

(b) “Electronic integrated circuits and microassemblies” are:

D (i) Monolithic integrated circuits in which the circuit elements (diodes, transistors, resistors, capacitors, interconnections, etc.) are created in the mass (essentially) and on the surface of a semi-conductor material (doped silicon, for example) and are inseparably associated;

E (ii) Hybrid integrated circuits in which passive elements (resistors, capacitors, interconnections, etc.), obtained by thin- or thick-film technology, and active elements (diodes, transistors, monolithic integrated circuits, etc.), obtained by semi-conductor technology, are combined to all intents and purposes indivisibly, on a single insulating substrate (glass, ceramic, etc.). These circuits may also include discrete components;

F (iii) Microassemblies of the moulded module, micromodule or similar types, consisting of discrete, active or both active and passive, components which are combined and interconnected.

G For the classification of the articles defined in this Note, heading Nos.85.41 and 85.42 shall take precedence over any other heading in the Schedule which might cover them by reference to, in particular, their function.

H 6. Records, tapes and other media of heading No.85.23 or 85.24 remain classified in those headings, whether or not they are cleared

with the apparatus for which they are intended.

Heading No.	Sub-heading No.	Description of goods	Rate of duty
(1)	(2)	(3)	(4)
85.17	8517.00	Electrical apparatus for line telephony or line telegraphy, including such apparatus for carrier-current line systems.	20%
85.24		Records, tapes and other recorded media for sound or other similarly recorded phenomena, including matrices and masters for the production of records, but excluding products of Chapter 37.	
	8524.10	Gramophone records.	30%
Magnetic tapes:			
	8524.21	Audio tapes in any form.	30% plus Rs. 8 per square metre.
	8524.22	Audio cassettes.	30% plus Rs. 2 per cassette.
	8524.23	Video tapes in any form.	30% plus Rs.18 per square metre.
	8524.24	Video cassettes.	30% plus Rs.40 per cassette.
	8524.29	Other	30%
	8524.30	Magnetic discs.	30%
	8524.90	Other.	30%
85.42	8542.00	Electronic integrated circuits and microassemblies.	15%

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A We also set out exemption notification no.84/89-CE dated 1.3.1989 hereinbelow:-

B “Exemption to computer software. - In exercise of the powers conferred by sub-section (1) of section 5A of the Central Excises and Salt Act, 1944 (1 of 1944), the Central Government, being satisfied that it is necessary in the public interest so to do, hereby exempts computer software, falling under Heading No.85.24 of the Schedule to the Central Excise Tariff Act, 1985 (5 of 1986), from the whole of the duty of excise leviable thereon which is specified in the said schedule.”

C At the outset, we may point out that the dispute involved in the present case concerns valuation. In the matter of valuation, one of the important aspects to be taken into account is the condition of the goods/product at the time the goods leave the factory. In the present case one has to see at the “condition” of STD-PCO unit at the time of clearance and, therefore, the issue which arises for consideration, in the first instance, is whether the recorded EPROM was an essential component of the said STD-PCO unit for making it operational. The authorities below have concurrently found that the programmed EPROM was an integral part of the unit; that, it served the purpose of transmitting electronic instructions for the performance of the unit; that, the recorded EPROM was a part of the unit and that the said EPROM was an essential component of the unit for making it operational after plugging in with telephone line and, therefore, the said EPROM constituted an integral part of the STD-PCO unit. Conceptually, one has to keep in mind the subject-matter of the levy. In the present case, the subject-matter of the levy is STD-PCO unit, as a final product. The subject-matter of the levy in the present case is not the recorded EPROM. The question before us is whether the appellant was entitled to claim deduction of the value of the programmed EPROM from the assessable value of STD-PCO unit. It was the case of the appellant before the department that the value of the recorded EPROM was not includible in the assessable value of STD-PCO unit on the ground that blank EPROM was a medium in which the programme was encoded; that, it was similar to a programme being put in a floppy; that, the recorded media came under tariff item 85.24 and, therefore, the appellant was entitled to the benefit of exemption under notification dated 1.3.1989. Admittedly, in the present case, the appellant had classified the said unit under CH 85.17. There can hardly be any doubt that the price of a component will form part of the final cost of the unit and hence includible in its assessable

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value. The manufacturer takes into account, in deciding the cost of the said unit, the cost incurred for its manufacture and, therefore, unless the sale price of the said unit is arrived at on a basis independent of the cost of manufacture (if law so permits) the cost of the recorded EPROM has got to be included in the assessable value of the unit. Under note 2 to section XVI, parts or components of a machine are required to be classified with the machine which, in the present case, was STD-PCO unit classifiable under heading 85.17. Accordingly, each of the units cleared from the factory by the appellant in its completed form which included the programmed EPROM was classifiable under tariff item 85.17. The line telephone device (unit) was not complete without the programmed EPROM for its functioning. Therefore, the department was right in classifying the unit under tariff item 85.17 and further it was right in including the value of the programmed/recorded EPROM in the assessable value of the unit. In the present case, the appellant submitted that it was entitled to claim the benefit of exemption under the above notification dated 1.3.1989; that, it had bought blank EPROM from the market which was programmed/designed by the appellant; that, the recorded EPROM constituted a "recorded medium" under tariff item 85.24; that, under note 6 to chapter 85, recorded media would remain classifiable under tariff item 85.24, whether or not such recorded media was cleared with or without the apparatus and, therefore, its value was not includible in the assessable value of the unit (apparatus). It was vehemently urged on behalf of the appellant that the general principle of valuation supported by note 2(b) to section XVI was not applicable particularly in view of note 6 to chapter 85 and, therefore, the value of the "recorded medium" was not includible in the assessable value of the unit.

In the light of these arguments, the question which arises for determination is the meaning of the word "recorded medium" in tariff item 85.24. At this stage, we may reiterate that the appellant has claimed exemption, therefore, the burden was on the appellant to show that the programmed EPROM constituted a "recorded media" under tariff item 85.24. It is in this context that the matter was examined by the department which came to the conclusion that EPROM was basically a chip or an IC classifiable under tariff item 85.42 and, therefore, on facts the authorities found that tariff item 85.24 had no application to the facts of this case.

The controversy on classification, therefore, is : whether the essential character of the programmed EPROM, in the present case, as an IC changed

A to become a “recorded media” or a software under CH 85.24.

The main components of a computer system are central processing unit, memory and disk store [See: Oxford Illustrated Encyclopedia of Invention and Technology - 1992 Edition, page 183]. A floppy is a dumb storage box. It is different from a chip or an integrated circuit which performs intelligent functions. An integrated circuit (IC) is often referred to as a micro-chip or a chip. It is a miniaturized electronic circuit consisting of semi-conductor devices. A ‘memory’ is the most regular type of integrated circuit [See: *www.en.wikipedia.org*]. According to *www.whutis.com*, an ‘IC’, sometimes called a chip or micro-chip, is a semi-conductor wafer on which thousands of capacitors and transistors are fabricated. Unlike a floppy or a disk (which is removable from the system) an ‘IC’ can function as an amplifier, timer, counter, computer memory and as a microprocessor. It is not easily removable. Therefore, an ‘IC’ or a chip cannot be compared to a floppy which is merely a storage device similar to an empty box or a suitcase.

In the entire controversy before us, the appellant has tried to compare a floppy containing a programme with an IC in which the programme is electronically embodied. The functions which an IC performs, as enumerated above, are intelligent functions which are not performed by a floppy. A floppy cannot be used as a timer or amplifier. An IC is more than a storage device.

“EPROM” stands for Erasable Programmable ROM. The word ‘ROM’ is an acronym for ‘Read Only Memory’, a type of unchangeable memory residing in chips or the ICs on the mother board. ROM contains bare minimum of instructions needed to start a computer. It is used for critical functions. It is similar to municipal utilities such as gas and electricity. If a different configuration is required, one has to move to a different computer. ROM is sometimes wrongly compared to a storage media such as CD-ROMs [See: *utut.essortment.com*]. ROM chips have programmes built into them at the factory. ROM chips are not volatile. The expression, “Read Only” means that CPU can read or retrieve the programmes written on the ROM chips. ROM chips contain special instructions for detailed computer operations. For example, ROM instructions may start the computer, give keyboard keys their special control capabilities, and put characters on the screen. ROMs are generally called as Firmware [See: “*Computing Essentials*” by Timothy J. O’Leary & Linda I. O’Leary - 2002 Edition]. According to the *Illustrated Dictionary of Computing* by Jonar C. Nader - 3rd Edition, “ROM” is a

hardware which is used to store permanent instructions for the computer's general housekeeping operations. A user can read and use the data stored in ROM, but cannot change them. When a computer is turned on, ROM supplies a series of instructions to CPU which in turn performs a series of tests. EPROM, on the other hand, according to the same dictionary, is an erasable programmable ROM. Initially, users had to supply ROM vendor with an inter-connected program so that the vendor could build the ROM. To avoid this high set-up charge, manufacturers developed a user-programmable ROM (PROM). A 'PROM' is just like a ROM. Similarly, as an alternative, with the development of technology, in the year 1973 Intel Corporation came out with EPROM. When the chip was exposed to ultra-violet radiation the memory could be erased and replaced by a new memory. Therefore, EPROM is a re-writable memory chip. The only difference between ROM and EPROM is that EPROM holds its content without power. EPROM chips are written on an external programming device before being placed on the circuit board [See: www.answers.com]. The word "programmable" means that EPROM can be programmed with data, program or both whereas 'ROM' means that the computer which is connected to the EPROM can only get information from the chip or IC. It cannot put information into the chip. In short, EPROM is a memory part which will not forget its program or data when power is removed. EPROM has to be programmed by a special programming product called an EPROM or a device programmer. The computer cannot store data in an EPROM because the EPROM is a READ ONLY memory part [See: www.arlabs.com].

Lastly, even under the scheme of the 1985 Tariff and the HSN, ICs (85.42), data processors (84.71) and recorded media (85.24) are all separately classifiable. Under the explanatory note to HSN (2nd Edition, 1996), at page 1234, separate electrical parts have been classified under one or other of the headings of chapter 85, for example, transistors, diodes and similar semiconductor devices, stand classified under heading 85.41 while electronic integrated circuits are classified under heading 85.42.

The above discussion, therefore, shows that EPROM cannot be compared to a floppy. As stated above, floppy is a dumb box. That is not the case with EPROM. EPROM is basically an integrated circuit or a chip. We agree with the department. EPROM is, therefore, classifiable as an integrated circuit under tariff item 85.42.

The question which remains to be answered is whether a programmed

A EPROM is a recorded media under CH 85.24. It was argued before us that like CD-ROM or a floppy which has a programme in it, EPROM is also a programmed device. It was argued that blank EPROMs were purchased in which the appellant embodied its programme and, therefore, the recorded EPROM constituted a recorded media under tariff item 85.24.

B We do not find any merit in this argument. In a disk operating system, the basic input is stored in a ROM which is transferred to RAM when the system gets started. The input/output routines are written into the IC at the factory. The point to be noted is that the ICs which contain semiconductor components like diodes etc. have got to be embedded in the mother board.

C The ROM chip is fixed at the factory. The chip is fixed in the computer and only then the programme works. Hence, this is basic difference between a mere floppy which is a recorded media under CH 85.24 and the IC under CH 85.42. In the former case, the program is a software because a floppy is a storage in which software plays the dominant role whereas in the case of IC

D the programme is embodied in the IC which can perform various functions only when fixed to the mother board and is not removable like a floppy from VCR. According to Encyclopedia of Technology Terms by Whatis.com, an IC can function as an amplifier, oscillator, timer, microprocessor etc. On the other hand, a floppy disk is only a storage. Moreover the essential character of IC does not change with the programme being embedded in the IC and

E hence the IC remains classifiable under CH 85.42. This distinction is also brought out by tariff items referred to above (See: *Dictionary of Computing* by Prentice Hall).

F An embedded system is a programmed hardware device. Software written for embedded systems, especially those without a disk drive is called Firmware, the name for software embedded in hardware devices e.g. in ROM IC chips. Many embedded systems avoid mechanical moving parts, such as, disk drives, switches or buttons because they are unreliable as compared to ROM or Fast Memory IC chips. It is kept outside the reach of humans. In embedded systems, the software resides in ROM IC chips. Embedded systems are combination of hardware and software like ATMs, Cellular telephones etc. In

G embedded systems, the software resides in ROM IC Chip (See: *www.answers.com*). These chips are more than mere carriers. Example of embedded system: microwave ovens, cell phones, calculators etc.

H In the case of *Office of Patent v. Gale* reported in (1991) RPC 305 the Court of Appeal held that if a programme is embodied in a floppy disk it

becomes a software but where the chip with its electronic circuit embodies a programme it becomes a hardware. It has been further held that electronic circuitry in the form known as ROM is an integrated circuit or a chip. In the said case it has been observed by the Court of Appeal that ROM is an article which can be manufactured. It is an article because its structure can be altered during the manufacture so as to perform mathematical functions. It has been further observed that there is a difference between a disk containing a programme and a ROM with a particular circuitry embodying a programme. In the former case, the disk carries the programme whereas in the latter case, a programme is used as the basis for altering the structure of ROM. ROM is more than a carrier and, therefore, it cannot be compared to a floppy or a disk. We may clarify that *Gale's* case was on two aspects, viz., patent and difference between ROM and the floppy disk. What is stated herein is on the second aspect which the Court of Appeal decided. To the same effect is the ratio of the judgment of the US Supreme Court in the case of *Robert Gottschalk, Acting Commissioner of Patents v. Gary R. Benson* 409 US 63.

Even under HSN, entry 84.71 covers Data Processors, however, under the explanatory note it is clarified, at page 1403, that devices working in conjunction with such processors have to be classified not under 84.71 but with reference to their specific function. Therefore, devices like ICs, as in the present case, which help the processor to function can only fall under 85.42 (in cases where such ICs are the final products) and where they form an integral part of a machine like STD-PCO unit, they have to be classified under heading 85.17, hence, it will not fall under heading 85.24 as claimed by the appellant (See: page 1408 of HSN - 2nd Edition, 1996). As stated above, a disk with a programme is a software. However, a ROM with a particular circuit in which a programme is structured remains an IC.

In the case of *PSI Data Systems Ltd.* (supra) the department had conceded that the item in question was a software. Further, in that matter the subject-matter of the levy was a software, as a final product, sold with the computer. On the other hand, in the present case, the subject-matter of the levy is STD-PCO unit. The question before us in the present case is whether the programmed EPROM constituted an integral part of the STD-PCO unit classifiable under CH 85.17. As stated hereinabove, the programmed EPROM was a ROM with a circuit in which the programme was embodied. Therefore, the judgment of this Court in the case of *PSI Data Systems Ltd.* (supra) is not applicable to the facts of the present case. In fact, in para 2 of the judgment

A of this Court in *PSI Data Systems*, this Court has made a clear distinction between softwares, such as, disks, floppies, CD-ROMs etc. on the one hand *vis-a-vis* softwares which are etched into the computer. Therefore, the judgment in the case of *PSI Data Systems* has no application. On the contrary, it supports our interpretation in the present case.

B In the case of *Sprint RPG India Ltd.* (supra) this Court observed that hard disk is a refined form of floppy which records material in an efficient manner. In that case, the question was classification, namely, whether duty was leviable on software loaded on a hard disk drive under heading 84.71 or under 85.24. This Court held that a hard disk was a form of floppy on which
C the programme was stored and, therefore, the character of such a programme did not change and, therefore, the imported item was a software which was stored in the hard disk and, therefore, it was classifiable under CH 85.24. In that matter the question of a software being an integral part of a machine like
D STD-PCO unit was not there. In that matter there was no duty imposed on the unit or machine. The question in that matter was regarding levy of duty on a floppy with the software. In that matter the question of the integrated circuit did not arise. In that matter the interpretation of entry 85.42 was not at all considered. Hence, the judgment of this Court in *Sprint RPG India Ltd.* (supra) has no application to the facts of the present case.

E In the case of *ACER India Ltd.* (supra) the demand raised by the department was for the period July 2001 to May 2002. In the year 2000 the Excise Act was amended and the concept of “transaction value” came to be introduced for the first time. Further, the argument on behalf of the department was that the loading of operational software was includible in the value of the
F computer manufacture by the assessee after 1.4.2000 when the concept of transaction value came to be introduced. In the circumstances, the judgment of this Court in *ACER India Ltd.* (supra) has no application to the facts of the present case. Further, in the case of *ACER India Ltd.* (supra), the subject-matter of the levy was a computer whereas the subject-matter of the levy in the present case is STD-PCO unit. The concurrent finding of all the courts
G below indicate that, in the present case, the programme was etched in a particular form of circuit known as ROM which is required to be fixed to the mother board and only on such fitment the STD-PCO unit became operational. Therefore, the judgment of this Court in *ACER India Ltd.* (supra) has no application to the facts of the present case. In fact, in the judgment of this
H Court in *ACER India Ltd.* (supra) the Court was not required to examine the

scope of CH 85.42.

A

Before concluding, we reiterate that in the present case, the levy is on a computer based embedded system. The software embedded in the programmed EPROM, which is an IC chip, constitutes the "brain" of the system. The programmed EPROM is an integral part of the system. The levy is on the unit. The levy is not on the programmed EPROM. The programme embedded is not an easily removable. Hence, it will not fall in the category of recorded media under tariff item 85.24 and remains an IC under tariff item 85.42.

B

For the aforesaid reasons, we do not find any merit in this civil appeal which is accordingly dismissed with no order as to costs.

C

S.K.S.

Appeal dismissed.