# BEFORE THE INTERPRETATION AND APPEALS SECTION DEPARTMENT OF REVENUE STATE OF WASHINGTON

In the Matter of the Petition For Refund of	) $\underline{D} \ \underline{E} \ \underline{T} \ \underline{E} \ \underline{R} \ \underline{M} \ \underline{I} \ \underline{N} \ \underline{A} \ \underline{T} \ \underline{I} \ \underline{O} \ \underline{N}$
	No. 86-306
	Registration No
	)

[1] RULE 113, RCW 82.04.050(1)(c): INGREDIENTS OR COMPONENTS. The so-called "ingredients or components exemption" from the retail sales tax is limited to desirable and intended constituents of the finished product, and does not extend to materials traceable in the finished product as impurities or undesireable or unnecessary constituents.

Headnotes are provided as a convenience for the reader and are not in any way a part of the decision or in any way to be used in construing or interpreting this Determination.

DATE OF HEARING: March 12, 1986

### NATURE OF ACTION:

Manufacturer petitions for refund of retail sales tax paid on carbon electrodes consumed in producing for sale silicon and ferrosilicon on the ground that the electrodes qualify as an "ingredient or component" for purposes of excluding purchases of such electrodes from the definition of sale at retail.

## FACTS AND ISSUES:

A.L.J. (Successor Μ. Clark Chandler, Rosenbloom, to Administrative Law Judge, who conducted hearing) -- The taxpayer manufactures silicon metal and ferrosilicon metal for sale. Both metals are manufactured in electric furnaces from raw materials consisting of scrap iron, quartz ore, coal, coke and The coal, coke, and wood chips furnish carbon wood chips. which, in the presence of heat, reacts chemically with silicon dioxide present in the quartz ore to yield silicon metal and carbon monoxide. The mixture is heated by the insertion of three electrically charged carbon electrodes arranged in a delta or triangular formation. The tips of the electrodes wear away during this process supplying additional carbon. Carbon from the coal, coke and wood chips, and to a lesser extent carbon from the electrodes, is present in the form of silicon carbide in both the finished silicon metal and ferrosilicon metal.

The presence of silicon carbide, and trace amounts of iron, aluminum and calcium, is what distinguishes silicon metal, which is tabular or layered in form, from chemically pure silicon, which assumes a crystalline structure. Ferrosilicon metal is similar to silicon metal but with a higher iron customers, content. The taxpayer's chiefly manufacturers, desire the tabular form of silicon metal rather than chemically pure crystalline silicon. The former is, of course, much cheaper to produce. But more importantly, tabular silicon is much easier to alloy with aluminum. the presence of silicon carbide reduces the slag content of the customers' end product. Likewise, ferrosilicon is simply an alloy of silicon metal and iron. It is neither necessary nor desirable (and perhaps not possible) to produce chemically pure ferrosilicon, for the purposes for which it is used by the taxpayer's customers. To the contrary, the tabular form, which necessarily includes silicon carbide, is preferred for the use intended by the taxpayer's customers.

The carbon electrodes used in the taxpayer's manufacturing process are purchased from an outside vendor and retail sales tax has been paid upon their selling price. By letter dated Septemberá20, 1985, the taxpayer petitioned for refund of the retail sales tax paid on purchases of carbon electrodes from 1981 through the present.

## TAXPAYER'S EXCEPTIONS:

The taxpayer asserts that purchases of carbon electrodes qualify for the "ingredients or components" exclusion from the definition of "retail sale."

#### DISCUSSION:

Excluded from the definition of "retail sale" are

. . . purchases for the purpose of consuming the property purchased in producing for sale a new article of tangible personal property or substance, of which such property becomes an ingredient or component or is a chemical used in processing, when the primary purpose of such chemical is to create a chemical reaction directly through contact with an ingredient of a new article being produced for sale.

RCW 82.04.050(1)(c). Such purchases are not subject to the retail sales tax imposed by RCW 82.08.020. Thus, the practical effect of RCW 82.04.050(1)(c) is to create two exemptions which, for convenience, may be referred to as the "ingredients or components exemption" and the "chemicals used in processing exemption."

Washington Supreme Court has determined that manufacturer's purchases of carbon electrodes for use producing ferrosilicon for sale do not qualify for the chemicals used in processing exemption. Pacific Northwest Alloys, Inc. v. State, 49 Wn.2d 702 (1957). The manufacturing process described in that decision is the same one as that employed by the taxpayer. The Court determined that the "primary purpose" of the electrodes was not to create a chemical reaction but to conduct electric current into the furnace. It is apparent, however, that the Court considered only the chemicals used in processing exemption and not the ingredients or components exemption. <u>See Pacific Northwest</u> Alloys, Inc., 49 Wn.2d at 704-05. See also Van Dyk v. Department of Revenue, 41 Wn.App. 71 (1985).

The "primary purpose" test applies only to the chemicals used in processing exemption. Lone Star Industries, Inc. v. Department of Revenue, 97 Wn. 2d 630 (1982). Thus, regardless of the primary purpose, property that becomes an ingredient or component of a new article produced for sale qualifies for exemption.

[1] Thus, we must consider whether the carbon electrodes become an ingredient or component of the silicon metal or ferrosilicon metal. Clearly, the electrodes are a source of

carbon and carbon is present in the end product. The courts have construed the ingredients or components exemption broadly, but have so far limited it to desirable and intended constituents of the end product. The exemption has never been extended to materials traceable in the finished product as impurities or undesirable or unnecessary constituents. Thus, if the taxpayer were attempting to manufacture chemically pure silicon or ferrosilicon, we would conclude that any carbon present in the finished product was not an ingredient or component.

However, the taxpayer has testified emphatically that chemically pure silicon or ferrosilicon is not the intended end product. To the contrary, the taxpayer's customers require silicon metal or ferrosilicon metal in the tabular This is because the tabular form alloys with other metals much more readily than the chemically pure Furthermore, the silicon carbide present in crystalline form. the tabular form reduces the amount of slag present in the customer's finished product. The taxpayer testified that the customers would not accept the silicon metal and ferrosilicon metal if it contained insufficient silicon carbide. Based on this testimony, we find that carbon, in the form of silicon carbide, is a desirable and intended constituent of silicon metal or ferrosilicon metal. We conclude that the carbon electrodes that provide a portion of this carbon qualify as "ingredients or components" within the meaning of

## DECISION AND DISPOSITION:

The taxpayer's petition for refund is granted. Upon verification of payment of the retail sales tax by the taxpayer's vendor to the Department, the Audit Section will issue a credit or refund to the taxpayer in the appropriate amount.

DATED this 5th day of December 1986.

RCW 82.04.050(1)(c).