

Cite as Det. No. 98-157, WTD 753 (2000)

BEFORE THE APPEALS DIVISION
DEPARTMENT OF REVENUE
STATE OF WASHINGTON

In the Matter of the Petition For Correction of)	<u>D E T E R M I N A T I O N</u>
Assessment and Refund of)	
)	No. 98-157
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[1] ...

[2] RULE 113; RCW 82.04.050: RETAIL SALES TAX -- INGREDIENT OR COMPONENT -- PLANNED DEGRADATION -- COLLECTOR BARS AND ANODE STUBS. Purchases of steel anode stubs and iron collector bars were not entitled to an ingredients or components exemption even though some ingredients contained in the bars and stubs were also found in the molten aluminum product. The exemption was disallowed because the stubs and collector bars were not entirely consumed in the manufacturing process, the taxpayer did not present clear evidence directly tracing the ingredient's source to the stubs or bars and any contributed amounts appeared insignificant.

[3] RULE 134; RCW 82.04.130: B&O & USE TAX -- COMMERCIAL OR INDUSTRIAL USE-- SMELTING POTS A manufacturer owes additional manufacturing B&O taxes and use taxes on steel smelting pots manufactured for commercial or industrial use even though some materials used to line the pots were exempt ingredients or components or chemicals used in processing.

[4] RULE 112; RCW 82.04.010: MANUFACTURING AND USE TAXES -- COMMERCIAL OR INDUSTRIAL USE -- DEPT. OF DEFENSE CONTRACTOR -- VALUATION. Smelting pots manufactured for commercial and industrial use by an aluminum company were not entitled to the lower Department of Defense contractor valuation when the pots were used to manufacture only raw materials which were then transferred to another division for manufacture into products and only a very small percentage of those products were sold to the Department of Defense.

- [5] RULE 113; RCW 82.04.050: RETAIL SALES TAX -- CHEMICAL USED IN PROCESSING -- PRIMARY PURPOSE -- CARBON CATHODE BLOCKS. Purchases of carbon cathode blocks are not exempt as a chemical used in processing because their primary purpose is not to create a chemical reaction directly through contact with an ingredient of the final product sold.

- [6] RULE 136; RCW 82.04.120: MANUFACTURING AND USE TAXES -- TEST -- REPAIRING OR MANUFACTURING -- SIGNIFICANT CHANGE -- FACTORS. To determine whether an activity constitutes repairing or manufacturing one must examine whether a “significant change” has taken place in the article after considering a variety of factors, including the following: whether the refurbishment merely restores the article to its original condition, whether the article's original functional utility is significantly enhanced, and whether the refurbishment process is so extensive so that a new, different or useful article results.

- [7] RULE 113; RCW 82.04.050: RETAIL SALES TAX -- CHEMICAL USED IN PROCESSING -- CARBON ANODE -- COMBINED MATERIALS. Labor charges paid to a third-party assembler to attach an exempt carbon anode to a non-exempt steel rod are subject to retail sales tax. The exemption for a chemical used in processing does not include labor charges incurred to convert an exempt chemical into a manufacturing tool.

- [8] MISCELLANEOUS -- B&O TAX -- TRANSFERS TO COMPETITOR -- TOLLING AGREEMENT -- FUNGIBLE GOODS. Transfers of fungible aluminum ingots to a competitor for the purpose of having the metal processed are tolling agreements and are not subject to wholesaling B&O taxes even though Taxpayer may have accounted for the transfers as a buy/sell arrangement.

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.¹

NATURE OF ACTION:

¹ Nonprecedential portions of this determination have been deleted. See RCW 82.32.410. Manufacturing machinery and equipment exemptions from sales and use tax became effective July 1, 1995. See RCW 82.08.02565, 82.12.08565. This determination involves a tax period that pre-dates those exemptions.

An aluminum manufacturer protests the assessment of additional manufacturing business and occupation (B&O) and use taxes on labor and overhead on pot refurbishment and other adjustments.²

FACTS:

Okimoto, A.L.J. -- . . . (Taxpayer) operates aluminum smelter and production plants in the state of Washington. The books and records of each plant were audited by the Department of Revenue's (Department's) Audit Division (Audit) for the period July 1, 1989 through December 31, 1994. After issuing estimated tax assessments against Taxpayer's [#1] plant, Audit issued two amended assessments on July 31, 1996 for additional taxes and interest due in the amount of \$. . . and \$. . ., respectively. Similarly, Audit issued two amended assessments against the Taxpayer's [#2] plant on July 31, 1996, . . ., for additional taxes and interest due in the amount of \$. . . and \$. . ., respectively. Taxpayer made partial payments and the balances remain due.

Taxpayer protests the following items in the above amended audit assessments.

Smelting Pots: Ingredients or Components:

First, Taxpayer protests additional manufacturing business and occupation (B&O) and use taxes assessed on the value of aluminum smelting pots. Taxpayer explains it has already paid retail sales tax on materials used to manufacture pots, but Audit assessed additional taxes on the labor and overhead portion of costs incurred to create . . . pots. Taxpayer objects to these additional assessed taxes, and also seeks a refund of retail sales taxes paid on pot . . . materials in error. Taxpayer contends some materials, i.e. . . ., iron collector bars, and steel stubs actually become ingredients or components of the final aluminum product or a related byproduct. Taxpayer contends these materials are exempt from retail sales tax under RCW 82.04.050(1)(c).

Smelting pots are large steel-framed rectangular boxes with steel plating covering their outside walls. The walls are lined with blocks of silicon carbide refractory material. The bottom of the pot is covered by the carbon cathode blocks. Raw alumina is loaded onto the cathode floor at the beginning of the smelting process. A strong electric current is introduced into the alumina mixture through a carbon anode pointing downward from the pot's superstructure. The electric charge creates a chemical reaction that separates the pure elemental aluminum from the ore. Steel collector bars installed in the cathode block floor collect the spent current and transmit the electricity to the next pot down the line.

Taxpayer explains in its brief dated April 23, 1998:

. . .

Collector Bars

² Identifying details regarding the taxpayer and the assessment have been redacted pursuant to RCW 82.32.410.

Iron collector bars are placed through the pot cathodes as part of the circuit conducting electric current through the smelting pot. During the course of operation of the pot, cracks form in the cathode allowing penetration of aluminum metal to the collector bars causing these bars beneath to slowly dissolve. Stirring causes iron from the collector bars to diffuse up into the aluminum metal pool. Iron is an alloying ingredient of major importance in the production of aluminum products. As explained at exhibit B, various ranges of iron content are required in the manufacturing of common aluminum products; in fact, often additional iron must be purchased and added later in the manufacturing process.

Collector bars of failed pots cannot be reused because of their degradation and contamination. Some of the pot collector bars experience degradation in excess of 50%.

Stubs

Steel stubs attach carbon anodes which are lowered into the molten salt bath in the pots as another part of the electric circuit of the pot. The bath causes these stubs to slowly dissolve, imparting iron into the aluminum metal pool. Iron is an alloying ingredient of major importance in the production of aluminum products. As explained at exhibit B, various ranges of iron content are required in the manufacturing of common aluminum products; in fact, often additional iron must be purchased and added later in the manufacturing process.

Anode stubs are reused until their degradation reaches the point where their shape and/or strength are compromised, and they can no longer be mated to the anodes. Many of the anode stubs experience degradation between 20% to 30%. . . .

Taxpayer explained during the hearing it has two smelting plants that produce "commercial purity" grade aluminum ingots. Taxpayer stresses it normally does not attempt to make 100% pure elemental aluminum, but only "commercial purity" grade alloyed aluminum ingots which are typically referred to as either ". . ." or "P. . . ." The ingots are tested and labeled to indicate their trace element content. Afterwards, they are transferred to the production plant. At the plant, commercial grade ingots are remelted and trace elements are added as necessary. One of Taxpayer's primary products is "can stock," which is used to manufacture beverage containers. Because the percentages of silicon and iron impart important physical characteristics³ into the aluminum, Taxpayer's trace element "specifications" for each aluminum alloy is proprietary. Taxpayer testified the majority of its . . . products require the addition of silicon and/or iron because these elements make the aluminum more pliable. Of the remaining products, Taxpayer stated most have minimum

³Taxpayer explained that iron, the most common and highest-volume secondary element, reduces grain size in wrought products and can also contribute strength and ductility at room temperature or retain strength at higher temperatures. . . .

requirements for silicon, iron, or both. In no case must iron and silicon be removed from the alloyed ingots.

Taxpayer argues significant amounts of . . . and iron are also introduced into the alumina ore through the anticipated degradation of the smelting pots. . . . [I]ron [is introduced] through collector bars and anode stubs. Taxpayer states that if no elements degraded into the alumina ore, the resulting aluminum would be closer to a "high purity" grade of aluminum alloy containing approximately 99.90% "pure" elemental aluminum and only 0.10% trace elements such as silicon and iron. In order to produce "high purity" grade of aluminum alloy, Taxpayer would have to significantly shorten the useful life of its pots, thereby substantially increasing costs. Furthermore, since Taxpayer does not desire "high purity" aluminum, but only "commercial purity" aluminum, it has chosen to construct smelting pots out of materials which, when they degrade, introduce necessary and desirable ingredients into the end product.

In summary, Taxpayer argues . . . collector bars, and stubs composed of silicon or iron are all intended to degrade into the molten aluminum during the manufacturing process. Through degradation, these materials release necessary and desirable ingredients into the alloyed aluminum product being produced for sale. Furthermore, Taxpayer maintains the ingredients or components exemption under RCW 82.04.050(1)(c) has long been held to apply to plant equipment or parts contributing essential ingredients to finished products. Taxpayer relies on Lone Star Industries v. Department of Revenue, 97 Wn.2d 630, 647 P.2d 1013 (1982); Van Dyk v. Department of Revenue, 41 Wn. App. 71, 702 P.2d 472 (1985); Bethlehem Steel Corporation v. Department of Revenue, Docket 85-8 (BTA, 1986), and Det. No. 91-161, 13 WTD 75 (1993), in support of its position.

Smelting Pots: Department of Defense Valuation:

In the alternative, Taxpayer argues that even if the above materials are not exempt as ingredients or components, Taxpayer is entitled to use the lower valuation (ingredients only) allowed to Department of Defense contractors⁴. Taxpayer states approximately 3 percent of the aluminum products sold by its . . . mill are sold to the Department of Defense.

Taxpayer argues in its petition:

The plain language of the statute does not require any minimum percentage of product sold to the Department of Defense before the special treatment is available. Moreover, the statute language does not limit the special treatment merely because of product transfers between Taxpayer's divisions throughout the manufacturing process. The Special valuation is not an exemption which must be narrowly construed but rather a

⁴ RCW 82.12.010(1)(d) provides: In the case of articles manufactured or produced by the user and used in the manufacture or production of products sold or to be sold to the department of defense of the United States, the value of the articles used shall be determined according to the value of the ingredients of such articles.

clear statutory definition that should not be altered or limited. See Green River Community College v. Higher Education Personnel Board, 95 Wn. 2d 108 (1980).

Carbon Cathode Materials:-- Chemicals Used in Processing:

Next, Taxpayer requests a refund of sales tax or use tax paid on carbon cathode material purchased during the audit period and used in its smelting pots. Taxpayer maintains carbon cathodes are an exempt chemical used in processing under RCW 82.04.050(1)(c).

Repair, Modification and Installation of Equipment at the [#2] Plant:

Taxpayer argues use tax and manufacturing B&O taxes were improperly assessed on the value of various plant equipment repairs, modifications, and installations. Taxpayer states:

The auditor appears to have gathered his information regarding this plant equipment from an asset additions schedule without confirming whether the items were actually ‘built’ as new by Taxpayer. As discussed below, several items were merely repaired, reconditioned or installed and therefore tax on “manufacturing” should not apply.

These items include a . . . , . . . , . . . , . . . , . . . , and Taxpayer relies on WAC 458-20-136 (Rule 136) and ETB 213.04.173 in support of its position.

Anode Assembly for the [#2] Plant by a Processor for Hire

Taxpayer contends deferred sales tax was incorrectly assessed on invoiced amounts from [Foundry] for “Rod Anode Assembly.” Taxpayer contends no sales tax should have been assessed because the anode is a chemical used in processing.

Taxpayer explains in its petition:

During the audit period the [#2] plant had a small line of experimental smelting pots used to test a more efficient production method. Though the pots were experimental, they did produce large quantities of aluminum for sale. Because the experimental pots require anodes unique from other anodes used in the plant, carbon blocks and rods were special ordered and sent out to a third-party foundry . . . for assembly. At the . . . foundry carbon blocks must be attached to rods to create the anode assembly used in the experimental smelting pots. The rod portion of the anode assembly supports the carbon block as it is consumed in the smelting process.

Taxpayer points out, “Anodes have long been held to be exempt from sales or use tax because their primary purpose is to cause a direct chemical reaction in the production of aluminum (Tax Commission Ruling of the State of Washington, December 5, 1957).” Taxpayer argues that labor, overhead, and all material charges associated with creating the anode assembly should be exempt from use and/or deferred sales tax because the anode assembly is a chemical used in processing. Taxpayer contends that the manufacturing activities necessary to create a chemical

used in processing is merely an additional part of the manufacturing process of creating the aluminum products subsequently sold to purchasers.

Metal Trades Shown on the [#1 Plant] and . . . [Mill] Books

Taxpayer protests additional B&O taxes assessed on alleged trade exchanges of aluminum ingots. Audit taxed these transactions as a sale and repurchase of aluminum ingots by Taxpayer. Taxpayer argues these transactions are really part of a tolling agreement it has with a nearby competitor. Taxpayer explained during the hearing the aluminum ingots received from the [#1] smelter plant need further processing before they can be used as raw materials in the . . . mill. Sometimes additional trace elements, such as silicon and iron, need to be added. These processes are usually performed at the mill, but on occasion that facility is too busy. During these periods, Taxpayer ships the aluminum ingots to a nearby competitor who remelts the ingots, adds the necessary ingredients, and reforms the aluminum ingots into the necessary format. Although Taxpayer accounted for these as a buy/sell arrangement, Taxpayer argues this type of transaction is in substance, a tolling agreement whereby a competitor receives a fixed fee per pound to perform tolling services. Taxpayer points out the sales invoice issued by Taxpayer and the purchase invoice issued by the competitor are dated the same day for exactly the same number of pounds. In addition, Taxpayer's sales invoice states: "This is a part of a swap transaction the other leg of which bears [Taxpayer's] [invoice #] and [Competitor's] [invoice #]." Furthermore, Taxpayer states it bears the risk of any price fluctuation of the metal during processing. Taxpayer relies on Det. No. 86-295A, 3 WTD 443 (1986), for support of its position.

ISSUES:

. . .

- 2) Are purchases of steel anode stubs and iron collector bars entitled to an ingredients or components exemption when traceable amounts of iron can be found in the molten aluminum?
- 3) Does a manufacturer owe additional manufacturing B&O taxes and use taxes on smelting pots manufactured for commercial or industrial use?
- 4) Are smelting pots manufactured for commercial and industrial use entitled to the lower Department of Defense contractor valuation when the pots are used to manufacture raw materials, that are then transferred to another division for manufacture into products, three percent of which are sold to the Department of Defense?
- 5) Are Taxpayer's purchases of carbon cathode blocks exempt from sales tax as a chemical used in processing?
- 6) Is repaired, modified, or installed equipment subject to additional manufacturing B&O and use taxes?

- 7) Are labor charges paid to a third party assembler to attach an exempt carbon anode to a non-exempt steel rod subject to retail sales tax?
- 8) Are transfers for the purpose of tolling raw materials subject to wholesaling B&O taxes when they are accounted for as buy/sell arrangements?

DISCUSSION:

Smelting Pots: Ingredients or Components:

RCW 82.04.050(1)(c) excludes from the definition of retail sale:

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;

WAC 458-20-113 (Rule 113) implements RCW 82.04.050 and states:

2) Ingredients or components. The sale of articles of tangible personal property which physically enter into and form a part of a new article or substance produced for sale does not constitute a retail sale. This does not exempt from the retail sales tax the sale of articles consumed in a manufacturing process which do not enter into and become a physical part of the new article produced for sale, such as fuel used for heating purposes, oil for machinery, sandpaper, etc.

(3) Also, the definition of retail sale does not exclude consumables purchased for use in manufacturing, refining, or processing new articles for sale merely because some constituents of the consumables may also be traceable in the finished product, which are impurities or undesirable or unnecessary constituents of the finished product.

(4) For articles to qualify for sales and use tax exemption as ingredients or components of products produced for sale, such articles or their constituents must be traceable in the finished product and identifiable as having been directly provided by the article claimed for exemption. (Underlining added.)

A closer look at the ingredients or components exemption contained in RCW 82.04.050(1)(c) and Rule 113 reveals the following key requirements. To be exempt the items must be purchased: “for the purpose of [1] consuming the property purchased in [2] producing for sale a new article of tangible personal property or substance, of which such property becomes [3] an ingredient or component.” (Brackets and underlining added.)

Taxpayer correctly identifies Lone Star Industries v. Department of Rev., *supra*, as being the leading case in this area. In Lone Star, the Department assessed retail sales tax on grinding balls and firebricks used in the cement manufacturing process. Iron grinding balls were placed into

cement raw materials and their rotation ground raw materials into a fine residue. Firebricks insulated the outer walls of the kiln and eventually degraded into the raw materials during the firing process. The Department contended that because the primary purpose of the grinding balls and firebricks was to act as a tool, they did not qualify as an ingredient or component. In finding grinding balls and firebricks were exempt ingredients or components, the court stated:

RCW 82.04.050 makes it clear that a sale to one who purchases tangible personal property for the purpose of consuming it in the production of a new article of tangible personal property of which the original property becomes an ingredient or component is not a "retail sale" for taxation purposes. RCW 82.04.050 does not require that the tangible personal property so purchased be acquired primarily for the purpose of such consumption in order to avoid taxation as a "retail sale". In contrast, the purchase of chemicals used in processing escapes taxation only if the primary purpose of such chemical is to create a reaction. Lone Star at 1015.

The court went on to say that to the extent Rule 113 applied a primary purpose test for ingredients or components, it was ultra vires and void. It is important to note during the manufacturing process, approximately, 90 percent of the grinding balls and 50 percent of the firebricks eventually degraded into and became a necessary ingredient in the finished cement product produced for sale.

The Washington State Court of Appeals came to a similar conclusion in Van Dyk v. Department of Rev., 41 Wn. App. 71, 702 P.2d 472 (1985). In that case a foundry manufactured iron products from scrap iron, coke, and other ingredients by melting and refining the scrap in a large cupola. During the refining process scrap iron was placed upon a bed of coke at the bottom of a large cupola and ignited by propane torches. As the mixture burned, scrap iron melted and mixed with carbon from the unburned coke. The carbon in the coke did not chemically react with an ingredient in the final product and therefore did not qualify as a chemical used in processing. Some carbon, however, retained its original chemical identity and mixed with molten scrap iron and became a necessary ingredient of the final product. The Department contended the coke was not entitled to an exemption from use taxes because it was a chemical that underwent a chemical reaction whose primary purpose was to provide heat. The Department argued chemicals undergoing a chemical reaction were precluded from utilizing the ingredients or components exemption. In rejecting that argument, the court commented:

It [the Legislature] has created two separate exemptions in RCW 82.04.190(1)(c). . . . The chemicals used in processing exemption is narrow, requiring that the chemical involved be used for the primary purpose of entering into a reaction because of its contact with an ingredient in a finished product. . . . This permits taxation of chemicals exhausted in processing which do not directly contribute to the finished product. The ingredients exemption is broader, requiring only that the article inhere in the final product. Van Dyk at 76 (brackets added).

We note, however, all of the coke was consumed in the manufacturing process even though only 4 percent of the total carbon in the coke eventually became a component of the gray iron produced for sale. In this regard, the Van Dyk court cited Lone Star and reasoned, "The important fact for application of the ingredient exemption is that a necessary ingredient is supplied, not that the quantity is small." In both cases, however, the parties apparently agreed the items purchased were consumed in the process of producing for sale a new article and eventually became an ingredient or component of that product. The issue was whether the exemption also required it to be the primary purpose.

The Board of Tax Appeals (BTA) interpreted this exemption in Bethlehem Steel Corp. v. Department of Rev., BTA Docket No. 85-8 (1985). In Bethlehem Steel, a steel mill sought a refund of retail sales taxes paid on carbon electrodes and nipples consumed in the process of manufacturing steel. In the first stage, scrap metal and other ingredients were deposited into an electric-arc furnace. Three long carbon electrodes weighing approximately 1600 pounds and 20 inches in diameter were lowered into the furnace. Next, a charge was transmitted through the electrode creating an electric arc. The resulting extreme heat melted the scrap metal and other ingredients. In stage two, the molten steel was refined. During this stage the electrodes were immersed into a layer of molten slag resting on top of molten steel. An electric current was charged into the molten mixture raising their temperatures. Burning carbon created a "carbon boil" causing impurities to rise to the surface and become part of the slag. Carbon and sulfur concentrations were adjusted as needed. Carbon was introduced into the molten steel through a variety of ways, including by melting electrodes, adding coke, and dipping carbon electrodes. Each method supplemented the initial carbon residue contained in the charge. The finished steel product contained from 0.1 percent to 1.3 percent carbon. Carbon was an essential ingredient of the finished steel product because it was the primary strengthening agent.

In holding the carbon electrode was an exempt ingredient or component, the BTA stated:

In summary, we find that the carbon electrodes in question here were used in the manufacture of steel for the dual purpose of providing essential carbon for the steel manufacturing process and also for the conducting of electricity which provided heat for the process. A substantial part of the carbon electrodes entered into and became an essential ingredient or component of the finished steel product. Bethlehem Steel at 4 (underlining added).

The BTA noted Bethlehem Steel consumed approximately 8.9 pounds of carbon electrodes for each ton of steel produced. Of the 8.9 pounds consumed, approximately 58.1 percent of the carbon electrodes were attributable to either electrode dipping or linear consumption and actually became ingredients of the molten steel. The remaining carbon oxidized and dissipated into the atmosphere.

Taxpayer also relies on Det. No.92-161, 13 WTD 75 (1993), in which the Department followed the Bethlehem Steel decision. In that case another steel company had been assessed retail sales tax on refractory materials, limestone, and cast iron equipment. Det. No. 92-161 relied on a

previously published Det., No. 87-48, 2 WTD 239 (1987), and held refractory bricks provided necessary silicon, aluminum, iron, and chromium ingredients for both the steel and the slag byproduct. Det. No. 92-161 also held the limestone was an exempt ingredient of the slag byproduct and cast iron molds, stools, and slag pots became necessary ingredients in the finished steel product. These materials were entitled to the exemption even though they were initially used as tools in the manufacturing process. Det. No. 92-161 noted the molds, stools, and slag pots were first used for a purpose directly related to manufacturing a new article of tangible personal property, the items actually did become an essential and intended ingredient of that same manufactured product, and the items were required to be expensed on the manufacturer's books of account in accordance with generally accepted accounting principles.

Next, we must apply the above case law and statutes to Taxpayer's facts.

...

Collector Bars and Anode Stubs:

[2] Taxpayer has presented no evidence that these spent materials result in a byproduct for sale. Taxpayer's sole contention is the items degrade during the alumina smelting process and become a necessary and desirable ingredient in the alloyed aluminum product. We disagree.

Rule 113 states in pertinent part:

(4) For articles to qualify for sales and use tax exemption as ingredients or components of products produced for sale, such articles or their constituents must be traceable in the finished product and identifiable as having been directly provided by the article claimed for exemption. (Underlining added.)

Notwithstanding Taxpayer's argument that the collector bars and anode stubs contribute significant amounts of essential iron to the aluminum alloyed product, we remain unconvinced. Taxpayer has presented insufficient evidence to establish that iron traceable in the finished aluminum product was "directly provided by the article claimed for exemption." Simply pointing out that some collector bars and anode stubs have degraded in excess of 50 percent is insufficient since the iron may have oxidized or degraded into other materials. Furthermore, Taxpayer revealed during the hearing the majority of processed batches of aluminum alloy suffer no significant collector bar attacks at all. It is primarily during the batches processed toward the end of the pot's life cycle that some collector bars suffer significant degradation and iron is released into the batches. Even then, only a few bars show significant degradation and only some in excess 50 percent. Finally, even assuming some measurable amounts of iron from collector bars and anode stubs may have incidentally degraded into the aluminum product, these amounts appear to be so slight and sporadic as to be de minimus. They are certainly less than the

58 percent of carbon electrodes that became part of the steel in Bethlehem Steel, and conceivably even less than the 4 percent of carbon that became an ingredient of gray iron, in Van Dyk⁵.

We further question whether the collector bars and anode stubs satisfy the first requirement for the ingredients or components exemption, i.e. that the item be “consumed” in producing a product for sale. The term “consume” is not defined in the statute and therefore the ordinary dictionary definition is to be used. Marino Property v. Port of Seattle, 88 Wn.2d 822, 567 P. 2d 1125 (1977). The American Heritage Dictionary, New College Edition, defines “consume” to mean “To expend (fuel, for example); use up.” In Taxpayer’s case, the collector bars and anode stubs are not “used up” during the normal processing cycle of producing alloyed aluminum. Taxpayer testified that on the average, pots last approximately 1500 days before they must be replaced. They are utilized over and over in the alumina batch processing cycle. Similarly, anode stubs last an average of one year. In this respect they resemble capital equipment or tooling, in contrast to the raw materials of a manufactured product. Consequently, based on these facts, we can not find Taxpayer’s case is controlled by the court’s ruling in Van Dyk or the Board’s ruling in Bethlehem Steel, and we decline to extend those cases. Accordingly, Taxpayer’s petition is denied as to collector bars and anode stubs.

Smelting Pots Manufactured for Commercial and Industrial Use:

[3] Next, we must determine whether Taxpayer owes additional B&O and use taxes on labor and overhead attributable to its activity of manufacturing smelting pots or lining material. RCW 82.04.240 imposes the manufacturing tax and dictates its measure. It states:

Upon every person . . . engaging within this state in business as a manufacturer; as to such persons the amount of the tax with respect to such business shall be equal to the value of the products, including byproducts, manufactured . . . (Underlining added.)

RCW 82.04.450 defines “value of products” as:

(1) The value of products, including byproducts, extracted or manufactured shall be determined by the gross proceeds derived from the sale thereof whether such sale is at wholesale or at retail . . ., except:

(a) Where such products, including byproducts, are extracted or manufactured for commercial or industrial use;

(2) In the above cases [commercial and industrial use] the value shall correspond as nearly as possible to the gross proceeds from sales in this state of similar products of like quality and character, and in similar quantities by other taxpayers (Underlining and bracketed material added.)

⁵ We note that in Van Dyk, even though only 4 percent of the coke actually became an ingredient in the finished steel, the remainder of the coke was consumed through oxidation.

RCW 82.04.130 defines commercial or industrial use. It states:

“Commercial or industrial use” means the following uses of products, including byproducts, by the extractor or manufacturer thereof:

- (1) Any use as a consumer; and
- (2) The manufacturing of articles, substances, or commodities.

We have already determined Taxpayer is a manufacturer of some smelting pots. The remaining issue is whether it uses those pots “as a consumer.” RCW 82.04.190 defines “consumer” as:

(1) Any person who purchases, acquires, owns holds, or uses any article of tangible personal property irrespective of the nature of the person's business and including, among others, without limiting the scope hereof, persons who install, repair, clean, alter, improve, construct, or decorate real or personal property of or for consumers other than for the purpose . . . (c) of consuming such property in producing for sale a new article of tangible personal property or a new substance, of which such property becomes an ingredient or component or as 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 (Underlining added.)

As can be seen, the definition of “consumer” excludes purchases of chemicals used in processing as well as ingredients or components. Therefore, we conclude that when the Taxpayer uses a chemical in processing or an ingredient or component, it is not using it “as a consumer.” Instead, these purchases are merely components of the overall process of manufacturing the final aluminum product being produced for sale to third parties. The gross proceeds of sale of that finished product include the taxable measure of prior ingredient or component manufacturing activities performed by that person. It similarly includes prior “chemicals used in processing” manufacturing activities. See Det. No. 88-329, 6 WTD 321 (1988).

In Taxpayer’s case, if Audit has computed additional B&O and use taxes on labor and overhead attributable to creating an exempt ingredient or component or an exempt chemical used in processing, then these computations are in error. These amounts should not be included in the measure of either tax since the ingredients or components are not being used as a consumer.

This exemption, however, does not extend to the value of newly manufactured steel smelting pots. Smelting pots, by their very nature, are comprised of a combination of exempt and non-exempt materials. While the creation of exempt chemicals or ingredients which are used with the pots or to re-line the pots; i.e., carbon anodes or silicon refractory bricks, may be excludable from the measure of the taxes, the creation of nonexempt materials, such as collector bars, steel shells, and anode rods are fully subject to both the manufacturing B&O and use taxes. In this case, value in excess of material costs is created by utilizing knowledge and labor to combine different materials to create a new and different product, i.e., the steel smelting pot. This newly created pot performs functions different from its materials. It holds raw ingredients, percolates

molten elemental alumina, and transmits electrical charges into and out of the pot. These additional functions create a value for the smelting pots far in excess of their material costs. Furthermore, when examining the total overall use of the pots, it becomes clear they are primarily used as a tool in the manufacturing process and such use clearly constitutes use "as a consumer" within the meaning of RCW 82.04.050. Therefore, we conclude the taxable measure of the steel smelting pots for both manufacturing and use taxes is the value of the product, but not including costs attributable to manufacturing exempt ingredients and chemicals.

Smelting Pots: Department of Defense Valuation:

[4] RCW 82.12.020 imposes a use tax on the privilege of using within this state as a consumer any article of tangible personal property manufactured for commercial or industrial use. The tax is levied upon "the value of the article used" multiplied by the appropriate sales tax rate. RCW 82.04.010 further provides Department of Defense contractors are allowed to use a special definition of "the value of the article used" on certain equipment manufactured by them. It states:

In the case of articles manufactured or produced by the user and used in the manufacture or production of products sold or to be sold to the department of defense of the United States, the value of the articles used shall be determined according to the value of the ingredients of such articles.

We addressed this issue in an appeal of this same taxpayer for a prior audit period. In denying Taxpayer's request we stated:

We believe that the special valuation allowed by RCW 82.12.010 is limited to those articles manufactured and used by the manufacturer directly in the manufacturing process of the "product" being sold to the Department of Defense. It does not apply to manufactured equipment, such as smelter pots, that is used for refining raw materials which will then be transferred to another division and further manufactured into finished products. Nor, do we believe that the mere fact that taxpayer's [Mill] sells approximately three percent of its finished aluminum products to the Department of Defense should entitle all of taxpayer's divisions to the status of "Department of Defense" contractors.

In interpreting statutory language, tax exemptions are to be strictly construed. Budget Rent-A-Car v. Department of Rev., 81 Wn.2d 171, 500 P.2d 764 (1972). Accordingly, we hold articles manufactured for industrial use during the smelting process of raw materials, are not entitled to the lower Department of Defense contractor valuation, even though the raw materials may be transferred to a . . . mill, where approximately three percent of that mill's products are sold to the Department of Defense. We again deny Taxpayer's petition on this issue.

Carbon Cathode Materials:-- Chemicals Used in Processing:

[5] RCW 82.04.050(1)(c) also defines the exemption for a chemical used in processing. It excludes from the definition of retail sale:

Purchases for the purpose of consuming the property purchased in producing for sale a new article of tangible personal property or substance, . . . 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 (Underlining added.)

While the courts have held there is no primary purpose requirement for the ingredients or components exemption, the requirement is still used to determine whether the Taxpayer is entitled to a chemical used in processing exemption. Lone Star, supra.

Taxpayer states in its petition:

In a 1957 letter ruling, the Tax Commission held anodes were exempt from sales and use tax as “chemicals used in processing.” The same ruling reasoned carbon cathodes were primarily a tool and not an exempt chemical used in processing.

On March 25, 1994, an aluminum industry scientist made a technical presentation to the DOR explaining new information not previously known to the industry which supports treating carbon cathodes as exempt chemicals used in a manufacturing process. The presenters reviewed the known chemical reaction caused by the anode and explained how the carbon cathode causes a secondary chemical reaction only recently reported in scientific literature.

Since this reaction is secondary in nature, and appears to have been relatively unknown until recently, we conclude this chemical reaction was not and could not have been the primary purpose of the cathode blocks. Therefore, it does not satisfy the primary purpose test. Accordingly, Taxpayer’s purchases of cathode block materials are not entitled to a chemical used in processing exemption. Taxpayer’s petition is denied on this issue.

Repair, Modification, and Installation of Equipment at the [#2] Plant:

[6] We also addressed this issue in a prior appeal of this same taxpayer. In the process of giving guidelines for determining whether an activity constituted repairing or manufacturing, we stated the test should be based on whether a “significant change” had taken place in the article “after considering a variety of factors, including the following: whether the refurbishment merely restores the article to its original condition, whether the article’s original functional utility is significantly enhanced, and whether the refurbishment process is so extensive so that a new, different or useful article results.” Accordingly, this issue is remanded to Audit for consideration of these factors and adjustment.

Anode Assembly for the [#2] Plant by a Processor for Hire:

[7] We have examined the 1957 Tax Commission⁶ ruling to the industry, the Department's published decisions on the issue, pertinent Washington court cases, and Rule 113. Based on that precedent, we agree the Department has and will continue to treat carbon anode blocks as an exempt chemical used in processing. Anode assemblies, however, consist of both exempt carbon anode blocks and metal rods. Anodes rods are used to keep the carbon anode blocks in place during the smelting process and do not chemically react with a direct ingredient of the final product. Therefore, they do not qualify as a chemical used in processing. Similarly, Taxpayer has submitted no evidence qualifying it for the ingredients or components exemption.

Taxpayer argues because the anode block is an exempt chemical used in processing, labor charges made to attach it to a non-exempt metal rod should also be exempt. We disagree. RCW 82.04.050 clearly states the exemption only applies to chemicals consumed in the process whose: "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." A taxpayer may not combine an exempt chemical with non-exempt materials to convert non-exempt material into an exempt chemical. The exemption is limited to only those chemicals, which directly react through contact with an ingredient of a new article being produced for sale. RCW 82.04.050. Taxpayer's petition is denied on this issue.

Metal Trades Shown on the [#1] Plant and . . . [Mill's] Books:

[8] The tax ramifications of tolling agreements involving fungible goods among the aluminum industry is not one of first impression with the Department. This issue was most recently considered in Det. No. 86-295A, 3 WTD 443 (1987). That case involved one aluminum company (Company) that transferred a fixed quantity of bauxite plus a processing fee to another aluminum company (Processor) in exchange for an identical quantity of processed alumina ore. Audit treated the transaction as two separately taxed sales, a taxable sale of bauxite by Company to Processor and a subsequent repurchase of alumina ore by Company from Processor. It appears both transactions were accounted for as buy/repurchase arrangements. A written agreement between the parties stated their intentions were to create a tolling contract. Since the bauxite and alumina were fungible goods, the agreement also allowed Processor to commingle Company's bauxite with other supplies on hand. In finding a tolling relationship was created, and not a sale and repurchase, we stated:

[1] Though the question is an interesting one, it is not a novel one. In a prior Determination issued to this taxpayer (. . .) the Department ruled that a toll conversion contract whereby the taxpayer produced ingots from scrap metal supplied by its customers constituted processing for hire rather than manufacturing; even though the scrap metal was commingled with the scrap metal of other customers, and even though

⁶ The Tax Commission was the predecessor to the Department of Revenue.

the ingot was possibly delivered from a different plant than the one to which the scrap metal was delivered.

We agree with this characterization. Scrap metal and ingots are fungibles. There is no business purpose for segregating them, other than by alloy content. It would have been an elevation of form over substance for the Department to have required physical segregation of the goods by customers in order for the processing for hire classification to apply.

Likewise, bauxite and alumina are fungibles. The taxpayer's status as a processor for hire should not depend upon the narrow technicality of whether these substances have been commingled. Under the terms of the Agreement presented for our review, we are satisfied that the taxpayer was a processor for hire. 3 WTD at 443.

Taxpayer has similarly presented evidence that the parties understood these transactions to constitute a tolling agreement, and not a sale and repurchase. Taxpayer bears the risk of any fluctuations in the metals value and invoices are issued simultaneously for the exact same quantities. Based on this evidence, we are satisfied a tolling agreement was intended to be created. Accordingly, we find Taxpayer is not subject to Wholesaling B&O taxes on these transfers. Taxpayer's petition is granted on this issue.

DECISION AND DISPOSITION:

...

Taxpayer's petition for refund of sales taxes paid on collector bars and anode stubs is denied.

Taxpayer's petition for relief from manufacturing B&O and use taxes on newly manufactured steel smelting pots is denied.

Taxpayer's request to be allowed the special Department of Defense contractor's valuation for articles manufactured for commercial or industrial use is denied.

Taxpayer's request to be allowed a sales tax exemption for carbon cathode blocks is denied.

Taxpayer's request to delete articles only repaired, modified, or installed from the list of articles manufactured for commercial or industrial use is remanded to Audit.

Taxpayer's request to delete labor charges required to attach exempt anodes to non-exempt metal rods is denied.

Taxpayer's request to delete B&O taxes assessed on tolling transfers is granted.

Taxpayer's petition is granted in part, denied in part and remanded in part. Taxpayer's file shall be remanded to Audit for the proper adjustments consistent with this determination.

Dated this 31st day of August 1998.