

Cite as Det. No. 01-157R, 22 WTD 49 (2003)

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 of )	
)	No. 01-157R
)	
... )	Registration No. . . .
)	FY . . . /Audit No. . . .
)	Docket No. . . .

- [1] RULE 113; RCW 82.04.050: RETAIL SALES TAX – INGREDIENTS OR COMPONENTS – FUEL. Diesel fuel does not qualify, for retail sales tax purposes, as an ingredient or component of asphalt paving even though a residue from the combustion of the fuel is later added to the asphalt mix. The fuel does not retain its original chemical identity in the process and is not itself an ingredient in the final product.
- [2] RULE 113; RCW 82.04.050: RETAIL SALES TAX – CHEMICAL USED IN PROCESSING – FUEL. Diesel fuel does not qualify, for retail sales tax purposes, as a chemical used in processing asphalt paving even though a residue from the combustion of the fuel is later added to the asphalt mix. The fuel does not have as its primary purpose the creation of a chemical reaction directly through contact with an ingredient of a new article being produced.

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.

Mahan, A.L.J. – Asphalt paving company seeks reconsideration of a determination sustaining the assessment of retail sales or use tax on burner fuel purchases.<sup>1</sup>

ISSUES

1. Is diesel fuel subject to the ingredients or components exemption from retail sales or use tax when combustion of the fuel in manufacturing asphalt paving results in a residue, which is

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<sup>1</sup> Identifying details regarding the taxpayer and the assessment have been redacted pursuant to RCW 82.32.410.

either combined with the asphalt mix while it is being made or combined with blend sand for later use?

2. Is diesel fuel subject to the chemical used in processing exemption from retail sales or use tax when combustion of the fuel in manufacturing asphalt paving results in a residue, which is either combined with the asphalt mix while it is being made or combined with blend sand for later use?

### FACTS

Asphalt paving is manufactured by mixing asphalt cement with varying sizes of mineral aggregates, such as crushed stone, gravel, and sand. Recycled asphalt may also be added to the mix. The taxpayer operates a drum mix plant, which is a continuous mix facility for manufacturing hot-mix asphalt paving.

The process begins with aggregates contained in hopper bins being fed into the drum mixer in proportionate amounts according to job specifications. By way of example, the taxpayer provided a copy of one job specification, requiring or allowing in the aggregate mix by weight 15% blend sand, 65% aggregates of three different sizes, and 20% recycled asphalt. The aggregates, sand, and recycled asphalt are blended, dried, and heated in the drum mixer to about 300 to 330 °F (149 to 166 °C). Heat is supplied by a burner, which uses diesel fuel. The burner supplies heat directly into the drum mixer. In the last part of the mixing process, asphalt cement (5.5% by finished weight) is injected and the resultant material is mixed. At this point it is discharged into a conveyor for transport to a hot-mix storage silo where it is distributed to trucks. Because the hot-mix asphalt must be kept hot in order to be marketable, the silo also has heating elements to keep the mix hot.

Because of environmental laws and regulations, the exhaust from the drum mixer is discharged to a baghouse collector. The baghouse collects the particulate matter (called “fines”) being discharged from operation of the drum mixer so that only a small amount of the particulates are discharged into the environment. The particulates are mostly from organic matter being oxidized in the heating of the aggregates, but also include particulates from the combustion of the diesel fuel. According to the taxpayer, it operates the system 12 hours per day and produces approximately 2000 tons of hot-mix asphalt per day. It consumes approximately 55,728 pounds of diesel fuel in the process. According to the taxpayer, combustion of the fuel leaves approximately “.01 percent ash per pound of fuel consumed,” resulting in “.45 pounds of the ash generated per hour” being collected within the baghouse. Following extraction, the particulates are either returned to the drum mixer through a secondary return line for addition to the asphalt being made that day or collected at the bag house and transported by a front loader to the hopper containing the blend sand, for use in future asphalt mixes.

The fuel itself does not become part of the product. Only after the fuel burns and is united with oxygen in a chemical reaction does the remaining residue of fine particulate matter potentially end up in the finished products.

Although no evidence was submitted, the taxpayer asserts that the baghouse fines have a potential market for sale to farmers for soil conditioning. Rather than selling the fines, the taxpayer states it uses the material to supplement blend sand because the sand is one of the more expensive components in the aggregate mix (\$8 – \$10 per ton). Although providing only a tiny fraction of the blend sand requirements, the taxpayer contends the fines, as a residue from fuel combustion, contribute to the blend sand requirements and, thereby, become a component part of the asphalt product manufactured for sale. Assuming that all of the particulates from the combustion of the 55,728 pounds of fuel are used as blend sand each day, we calculate the taxpayer's reduction in material costs from using the fines would be less than \$.03 per day.

The Department of Revenue (Department) conducted a partial audit of the taxpayer's records for the January 1, 1996 through December 31, 1996 period. Under Schedule 4 of the audit, the taxpayer was assessed \$ . . . in use or deferred sales tax on the burner fuel consumed during the one-year period covered by the partial audit.

#### ANALYSIS

A sales tax is imposed on each retail sale within the state. RCW 82.08.020. A use tax, levied at the same rate as the sales tax, is imposed on any person who uses an item of tangible personal property as a consumer. RCW 82.12.020. A consumer is exempt from the use tax if he has paid sales tax. RCW 82.12.0252.

"Retail sales" are defined in RCW 82.04.050. The term "consumer" is defined by RCW 82.04.190. Applying these definitions, the taxpayer would be liable for sales or use taxes on the fuel, either because it purchased it at retail or because it used the fuel as a consumer, unless exempted by some other statutory provision.

Excluded from the definition of a "retail sale" is a sale of tangible personal property:

[F]or 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). A similar provision is provided for use tax purposes. RCW 82.12.020. These provisions create two distinct exclusions from tax: (1) the ingredients or components exclusion, and (2) the chemicals used in processing exclusion. *Van Dyk v. Department of Rev.*, 41 Wn. App. 71, 702 P.2d 472, *review denied*, 104 Wn. 2d 1014 (1985). Taxpayer argues that diesel burner fuel is an ingredient or component and, alternatively, it is a chemical used in processing the asphalt.

[1] The ingredient or component exclusion is implemented by WAC 458-20-113 (Rule 113). The rule, in part, 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.

(Emphasis added.)

Under this rule, fuels used for heating purposes are generally not subject to the ingredients or components exemption. Rule 113(2); *see also* Rule 113(9). In this regard, “fuel used in the manufacturing process which incidentally become part of the product manufactured may not be exempt from the sale or use tax.” *Weyerhaeuser Co. v Department of Rev.*, 16 Wn. App. 112, 118, 553 P.2d 1349 (1976). However, substances acting both as a fuel source and providing an ingredient or component at the same time may qualify for the ingredients or components exemption. *See Van Dyk v. Department of Rev.*, 41 Wn. App. 71, 702 P.2d 472 (1985).<sup>2</sup>

In *Van Dyk*, 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. Some carbon, however, retained its original chemical identity and mixed with molten scrap iron and became a necessary ingredient of the final product. Although only 4 percent of the total carbon in the coke eventually became a component of the iron produced for sale, the court held: “The important fact for application of the ingredient exemption is that a necessary ingredient is supplied, not that the quantity is small.”

The *Van Dyk* court found the ingredients or components exclusion to apply because the facts showed that “some of the carbon [fuel], while retaining its original chemical identity, mixes with

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<sup>2</sup> *See also Lone Star Industries v. Department of Rev.*, 97 Wn.2d 630, 647 P.2d 1013 (1982). In *Lone Star*, the Department assessed retail sales tax on grinding balls and firebricks used in the cement manufacturing process. Because the primary purpose of the grinding balls and firebricks was to act as tools, the Department contended they did not qualify as ingredients or components. The court held that the law did not support a primary purpose test and stated:

The trial court's holding seems to be based on the assumption that since the grinding balls and firebrick supply only a minimal amount of the iron, silica, aluminum and lime needed in the cement they may be deemed only incidental and not necessary ingredients or components of cement. . . . Although the grinding balls and firebrick provide only a small percentage of the total ingredients involved in the production of cement, the ingredients they do supply are no less necessary to the production of cement. The important fact is that the iron grinding balls and firebrick actually supply essential ingredients or components of the finished product and not whether the percentage supplied is large or small.

the molten scrap iron. This carbon [fuel] itself becomes an ingredient of the final products.” 41 WaApp 72, 702 P.2d at 474. That is not the case here. The fuel does not retain its original chemical identity and is not itself an ingredient in the final product. Accordingly, the ingredients or components exemption does not apply to the fuel used in this case. This conclusion is consistent with the provision in Rule 113(2) that “fuel used for heating purposes” does not qualify as an exempt ingredient or component.

[2] The taxpayer also argues that, because the heat from the combustion of the fuel results in the oxidation of some of the minerals in the asphalt mix, the fuel is subject to the exemption as a chemical used in processing. WAC 458-20-113 (Rule 113) is the administrative rule implementing the above exemption. It defines the term “chemical used in processing” as follows:

(6) "Chemicals used in processing" carries its common restricted meaning in commercial usage. It includes only chemical substances which are used by the purchaser to unite with other chemical substances, present as ingredients or components of the articles or substances being processed, to produce a chemical reaction therewith, as contrasted with merely a physical change therein. A chemical reaction is one in which there takes place a permanent change of certain properties, with the formation of new substances which differ in chemical composition and properties from the substances originally present, and usually differ from them in appearance as well. It is not necessary that all of the new substances which are formed be present in the final completed article or substance which is sold; one or more of such new substances resulting from the chemical reaction may be removed or drawn off in the processing.

Under the statute and Rule 113, the chemical must both create a chemical reaction through direct contact with an ingredient of a new article being produced for sale and the chemical reaction must be the primary purpose for using the chemical. *See also Pacific Northwest Alloys, Inc. v. State*, 49 Wn.2d 702, 306 P.2d 197 (1959); *Northwest Steel Rolling Mills, Inc. v. Department of Rev.*, 40 Wn. App. 237, 698 P.2d 100, *rev. den.*, 104 Wn.2d 1006 (1985).

In *Pacific Northwest Alloys*, the taxpayer manufactured a metal alloy, ferrosilicon, the components of which were iron and silicon. The raw materials used to manufacture the alloy were scrap iron, hydrate quartz, coal, coke, and wood chips. These raw materials were placed in an electric furnace. Pure carbon electrodes protruded into this mixture of ingredients from above. The electrodes introduced electric current into the furnace, which created high heat that caused the chemical processes to occur. At a high temperature, the carbon in the mixture of ingredients reacted with the quartz to produce silicon and carbon monoxide, a waste product. The silicon then united with the iron to form the alloy. The carbon electrodes themselves oxidized, and as they were gradually consumed in the furnace, a part of the carbon in them reacted with the quartz in the same manner as did the carbon supplied by the coal, coke, and wood chips. The taxpayer sought to exempt the carbon electrodes as a chemical used in processing or, alternatively, as property which becomes an ingredient.

The parties stipulated that the electrodes were used principally in the process to conduct electricity into the furnace, and that the carbon furnished by the electrodes was only a small portion of the carbon required to produce the chemical reaction. The Supreme Court concluded the electrodes did not qualify under the exemption for chemicals used in processing, because the primary purpose of the electrodes was not to create a chemical reaction, but rather to furnish the mechanical means by which the electrical current was introduced into the furnace. The court analogized the electrodes to tools that wear away during the manufacturing process and incidentally enter into the products manufactured.

In *Northwest Steel Rolling Mills*, the taxpayer manufactured new steel products from scrap steel, which it first melted and refined in electric arc furnaces. The refining process included the removal of impurities from the scrap steel through the use of slagging chemicals, calcium carbonate, calcium oxide, and a combination of silicon oxide and magnesium oxide. The slagging chemicals were added to the scrap steel after it was melted and reacted with impurities in the molten steel to form slag which settled to the bottom of the molten mass. The purified steel then became the material for the new products.

In describing the process, the Court of Appeals stated: “As the chemicals are mixed with the melted scrap, they can be said to contact the ingredients of the final products. The chemical reaction, however, is with the impurities rather than with the steel ultimately used by Northwest to make the articles it sells.” 40 Wn. App. at 239. Under such circumstances, the court held that the exemption did not apply to the process used by Northwest, and reasoned:

The exemption applies only to chemicals that “create a chemical reaction directly through contact with an ingredient of a new article being produced”. “Directly” means “without any intervening space and time” *Webster’s Third New International Dictionary* 641 (1969)); “through,” when used in this context, means “by reason of: on the basis of: because of”. *Webster’s Third New International Dictionary* 2384. Consequently, the exemption covers only those chemicals that react *because of* their contact with an *ingredient* of the new product. Finding 5 says only that, although the chemicals contact ingredients of the final product, they *react* with impurities in the mixture. It must follow that the reaction takes place because of contact with the impurities, not because of contact with the ingredients. The trial court did not find that the reaction occurs “through [because of] contact” with an ingredient of the final product. Therefore, the exemption does not apply.

40 Wn. App. at 240-241 (emphasis in original).

In applying these cases and the applicable law, we cannot find the diesel fuel qualifies as a chemical used in processing. First, the fuel itself does not directly contact an ingredient of the new product being produced. Rather, the heat generated from the combustion of the fuel comes into contact with the asphalt mix. Heat is not a chemical. Nor does the fuel “react *because of* [its] contact with an *ingredient* of the new product.” *Id.*

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Accordingly, we sustain the taxation of the fuel as a consumable supply in the present case.

**DECISION AND DISPOSITION:**

Taxpayer's petition for reconsideration is denied.

Dated this 28<sup>th</sup> day of August 2002.