

Cite as Det. No. 97-093, 17 WTD 121 (1998)

BEFORE THE APPEALS DIVISION
DEPARTMENT OF REVENUE
STATE OF WASHINGTON

In the Matter of the Petition For)	<u>D E T E R M I N A T I O N</u>
Refund of)	
)	No. 97-093
)	
...)	Registration No. . . .
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)	
)	

[1] [REVERSED IN DETERMINATION NO. 97-093ER, 17 WTD 188 (1998).]

[2] RULE 260; RCW 82.23B.045: OIL SPILL RESPONSE TAX -- INGREDIENT -- COKE -- SULFUR. Petroleum products that become ingredients of calcined coke are eligible for credit against the oil spill response tax. Products used as ingredients of sulfur are not eligible for the credit.

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.

NATURE OF ACTION:

Taxpayers appeal the denial of a refund with respect to oil spill response tax credits.¹

FACTS:

Pree, A.L.J. -- The taxpayer refines crude oil at its Washington refinery. It pays the oil spill response tax on the crude oil. The taxpayer sells various refined products including commercial jet fuel, calcined coke, and sulfur in Washington. The taxpayer requests credits for those products against the oil spill response tax.

The Audit Division of the Department of Revenue (Department) performed a partial audit of the taxpayer's records to review the purchases, receipts, sales, and exports of crude oil and petroleum products subject to the oil spill response tax. The Audit Division agreed to allow an export credit if

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

the taxpayer provided wing tickets showing delivery into the wing tanks for direct flights scheduled to points outside of Washington. However, the Audit Division denied the credit for non-wing sales to the airlines because of the lack of documentation to ensure that the fuel was used in planes flying directly out of Washington. The Audit Division also denied a petroleum ingredient credit for sales of calcined coke and sulfur. The Audit Division contends that petroleum products were not ingredients or components of either the coke or the sulfur. The taxpayer has petitioned for a refund based upon the denied credits.

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Coke. The taxpayer produces green coke from refining crude oil in Washington. The taxpayer uses green coke as feedstock to manufacture calcined coke. The taxpayer places the green coke in a calciner at its Washington location. The calciner dries out the coke, and burns off impurities.

The taxpayer heats the crude oil to about 650 degrees Fahrenheit and feeds it into a distillation tower. There, the crude separates into several fractions (e.g., light oils, grease, pitch, tar). The fractions are gradually withdrawn from the tower. The pitch is a liquid, and may be blended with other petroleum products to form bunker fuel, a fuel burned in cargo ships. To make coke, the taxpayer subjects the pitch to vacuum distillation, which produces the heavy distillate suitable for cracking.

In cracking, the taxpayer breaks large molecules into smaller molecules, creating new products. Coking is a severe form of cracking in which the taxpayer converts heavy residues into several products including green coke.

The taxpayer moves the coke from the coker to the calciner, where the taxpayer feeds it into a rotary hearth. The taxpayer adds air and fuel, heating the green coke to 2300 degrees Fahrenheit. The calcining process involves complex chemical changes as well as a physical transformation of the green coke. The physical structure of the coke is changed from an amorphous structure into a crystalline material. Virtually all water vapor and volatile hydrocarbons are driven off.

Calcined coke is 100% pure carbon and has a crystalline molecular structure. The taxpayer states that because of its physical structure, calcined coke is very difficult to burn, requiring temperatures in excess of 1200 degrees Fahrenheit. By comparison, the flashpoint of jet kerosene is 120-150 degrees and 130 degrees for No. 2 heating oil.

The taxpayer states that calcined coke simply is not used as fuel. 90% of the taxpayer's calcined coke is used to manufacture aluminum as an integral part of a chemical reaction in the manufacturing process. Calcined coke is used in the process of aluminum manufacturing to facilitate a reaction. Specifically, the calcined coke is used as anodes or cathodes² conducting

² In 1996, the legislature granted an exemption from sales tax (RCW 82.08.02568) and use tax (RCW 82.12.02568) for petroleum coke that becomes an anode or cathode in the production of aluminum.

electricity and acting as a catalyst to remove oxygen from the aluminum. The taxpayer sells the remaining 10% of its calcined coke to other manufacturers, who use it to make pigments, graphite, and some ferrous metals.

Sulfur. The taxpayer removes sulfur from crude oil and various feedstocks throughout the refining process. For every 1,000 barrels of crude oil, the taxpayer removes approximately 1.105 long tons of sulfur. The taxpayer states that third parties use the sulfur to produce fertilizer and sulfuric acid. The taxpayer asserts that sulfur cannot be used as fuel because burning it produces the toxic substance, hydrogen sulfide. Selling or using petroleum products containing high levels of sulfur is prohibited by law.

The taxpayer explained the sulfur refining process in detail. First, the taxpayer scrubs sulfur-containing gases by passing them through ten absorbing towers located at the refinery. The taxpayer pumps sour gas, similar to natural gas, but rich in hydrogen sulfide, into the bottom of the absorbers. The gas meets with an amine flowing down from the top of the absorber. The amine, combined with the absorber's high pressure and low temperature, facilitates a reaction in which the amine absorbs the hydrogen sulfide.

The amine³ entering the top of the absorber is lean amine. By contrast, the amine leaving the bottom of the absorber is rich amine; it has absorbed hydrogen sulfide. The rich amine goes to a plant where it is heated and the pressure is lowered, releasing the hydrogen sulfide and regenerating the amine into lean amine. The lean amine goes back to the top of the absorbers.

The hydrogen sulfide released by the regenerators and the hydrogen sulfide mixed with ammonia from other strippers that clean waste water, go to what the taxpayer refers to as "Sulfur Trains" (trains) to be converted into molten sulfur. There, the gas streams enter into a reaction furnace, then go through condensers where approximately 60% of the hydrogen sulfide is thermally converted and condensed into molten sulfur.

The next step in the trains is a series of preheaters, converter beds, and more condensers. The process converts all but 2% of the hydrogen sulfide into molten sulfur. An absorber treats the remainder reducing the hydrogen sulfide to few hundred parts per million. Pipelines carry the molten sulfur from the trains to two heated storage tanks. From there, tanker trucks and railroad tank cars load shipments for industrial users.

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³ The taxpayer states that it uses two amines at the refinery, MDEA in the tail gas absorber unit and DEA in the other absorbers. They go to different regenerating plants, but the process appears similar.

Regarding the calcined coke and sulfur, the taxpayer requests a credit for the petroleum products used as ingredients. The Audit Division rejected this claim contending that the taxpayer did not prove that petroleum products were ingredients of these items.

ISSUES:

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2. May taxpayers take an oil spill response tax credit for calcined coke and sulfur produced at refineries?

DISCUSSION:

An oil spill response tax is levied upon the owner of crude oil or petroleum products upon receipt of the oil at a Washington terminal from a waterborne vessel or barge. RCW 82.23B.020. The taxpayer incurred this tax on the crude oil that it refined in Washington. The taxpayer takes issue with the Audit Division's interpretation of the applicability of two credits against this tax in its situation.

1. [1]...

[2] RCW 82.23B.045(2) provides a credit for:

Any person having paid the tax imposed by this chapter who uses petroleum products as a component or ingredient in the manufacture of an item which is not a fuel may claim a refund or credit against the tax imposed by this chapter.

WAC 458-20-260(9)(b) simply states:

The use of petroleum products as a component or ingredient in the manufacture of an item which is not a fuel.

The taxpayer states that it manufactured sulfur and calcined coke at its refinery. It contends that it should be entitled to a credit for these products. The credit is allowed for the use of petroleum products as ingredients of non-fuel items. While it was initially disputed whether or not the calcined coke was a non-fuel product, the Audit Division has dropped its objection on that basis. Calcined coke is not used as fuel and requires temperatures over 1200 degrees Fahrenheit to burn. The Audit Division now contends petroleum products are not ingredients of the calcined coke.

The definition of "petroleum product" for the oil spill response tax (chapter 82.23B RCW) is different from the definition used for the other excise taxes. RCW 82.23B.010(7)⁴ reads:

⁴ RCW 82.23B.010 was amended in 1992. Subsection (7) was unchanged, however.

“Petroleum product” means any liquid hydrocarbons at atmospheric temperature and pressure that are the product of the fractionation, distillation, or other refining or processing of crude oil, and that are used as, useable as, or may be refined as a fuel or fuel blendstock, including but not limited to, gasoline, diesel fuel, aviation fuel, bunker fuel, and fuels containing a blend of alcohol and petroleum.

The issue is whether the taxpayer used petroleum products as an ingredient or component of the calcined coke. The calcined coke is directly derived from green coke, which is not a liquid hydrocarbon at atmospheric temperature and pressure. Crude oil is not a petroleum product because it is not the product of the fractionation, distillation, or other refining or processing of itself.

The taxpayer states that refining is a multi-step process. It cannot produce end products without making multiple intermediate products. According to the taxpayer, it uses liquid petroleum products in the manufacture of the green coke. The taxpayer reasons that the liquid petroleum products are ingredients in the green coke, which is the principal ingredient of the calcined coke, and therefore, those original petroleum products are the ingredients of the calcined coke.

We agree with the taxpayer. The calcined coke is derived from green coke, which is derived from residuum or pitch, a product of the processing of crude oil. The carbon from the pitch is an ingredient of calcined coke. Pitch is a liquid at atmospheric temperature and pressure. Therefore, the taxpayer is entitled to the credit under RCW 82.23B.045(2).

Regarding the sulfur, the ingredient from the crude oil appears to be hydrogen sulfide, which is not a liquid, but a gas at atmospheric temperature and pressure. The taxpayer will be given an opportunity to provide proof of any liquid hydrocarbons, which are ingredients in the sulfur.

DECISION AND DISPOSITION:

The taxpayer’s petition is granted in part and denied in part. A credit will be allowed for the tax on crude oil used to produce calcined coke, but not sulfur. . . .

The taxpayer has sixty days to make additional records available to the Audit Division regarding the sulfur or other export sales. The Audit Division will revise the assessment accordingly as discussed above.

DATED this 30th day of April, 1997.