STATE OF ALABAMA	§	STATE OF ALABAMA
DEPARTMENT OF REVENUE,		DEPARTMENT OF REVENUE
	§	ADMINISTRATIVE LAW DIVISION
V.	§	DOCKET NO. S. 86-141
AMERICAN BRASS, INC. P.O. Box 306	§	
Headland, AL 36345,	§	
Taxpayer.	§ ORDE	IR

This matter involves two joint petitions for refund of sales tax filed by American Brass, Inc. (Taxpayer) and Slocomb Oil Company relating to State and Henry County sales tax in the amounts of \$39,719.68 and \$9,929.92, respectively. A hearing was conducted in the matter on March 4, 1987. The Hon. Richard Ramsey appeared on behalf of the Taxpayer. Assistant counsel Arthur Leslie was present and represented the Department. Based on the evidence submitted by the parties, the following findings of fact and conclusions of law are hereby made and entered.

FINDINGS OF FACT

The determinative issue in this case is whether an oven-type device used by the Taxpayer in its manufacturing operation is a "kiln" within the purview of Code of Ala. 1975, §40-23-4(14). That section provides an exemption for "fuel oil purchased as fuel for kiln use in manufacturing establishments". The relevant facts surrounding the Taxpayer's operations are not in dispute.

The Taxpayer is in the business of manufacturing and processing brass and bronze ingots. The Taxpayer maintains a large inventory of nonferrous scrap metals, including zinc, which is

mixed with copper to make brass, and tin, which is mixed with copper to make bronze. When purchased, the scrap is mixed with copper to make bronze. When purchased, the scrap is inspected, categorized, weighed, graded for composition and placed into inventory. Upon receipt of an order, the necessary metals are selected from inventory to meet the specifications of the order.

The materials are melted together in one of three large rotating ovens operated by the Taxpayer. Each device is interlined with firebrick, cylindrical in shape, stands approximately fifteen feet tall, and has a capacity when full of approximately 90,000 to 100,000 pounds. When in operation, the oven rotates continuously and heat is provided by fuel oil burners located at one end of the cylinder. The fuel oil used in said burners is the subject of this appeal.

A sample is taken during the mixing process and tested by the Taxpayer in its testing laboratory. Specific metals are then added as necessary to conform the product to the requirements of the order. When the correct composition is reached, the product is poured into ingot molds, cooled, cleaned, and shipped to the customer.

The Department's argument is that the ovens are furnaces or blast furnaces, and not kilns. On the other hand, the Taxpayer takes the position that the devices are kilns, and thus that the fuel oil used in the kiln burners is exempt from sales tax.

CONCLUSIONS OF LAW

The word "kiln" is not defined in the revenue code. In such cases, a word must be given its plain, ordinary meaning, which is accepted in popular everyday usage. Darks Dairy, Inc. v. Alabama Dairy Commission, 367 So.2d 1378; Guthrie v. Civil Service Board of the City of Jasper, 342 So.2d 372; Republic Steel Corporation v. Horn, 105 So.2d 446.

Research reveals a number of definitions and uses for a kiln, some of which are set out below:

The <u>American Heritage Dictionary</u>, Second College Edition, provides the following definition:

<u>Kiln</u>, Any of various ovens for hardening, burning or drying substances such as grain, meal, or clay, esp. a brick-lined oven used to bake or fire ceramics.

<u>Websters New International Dictionary</u>, Second Unabridged Edition, defines the word as follows:

<u>Kiln</u>: A large stove or oven; a furnace of brick or stone, or a heated chamber, for the purpose of hardening, burning, or drying anything; often specif., a brickiln, a lime kiln or a cement kiln.

The New Columbia Encyclopedia, Fourth Edition, states as follows:

<u>Kiln</u>, furnace for firing pottery and enamels, for making brick, charcoal, lime and cement, for roasting ores, and for drying various substances (e.g. lumber, chemicals). Kilns may be updraft or downdraft; round, conical, annular, or rectangular; arranged for intermittent or continuous firing and of the multiple (double-wall) or direct contact type, as required. Rotary kilns are much used in continuous processing, including cement manufacturing and the drying of granular materials. They

consist of long tubes lying almost horizontally that are rotated slowly as heat is applied to the material being treated inside the tube. Fuel used may be electricity, oil, gas, or coal. The temperature of firing and the length of time required depend on the design of the kiln and the type of material being fired.

The most indepth and helpful description of a kiln is provided by the McGraw-Hill Encyclopedia of Science and Technology, Inc., Fifth Edition, as follows:

A device or enclosure to provide thermal processing of an article or substance in a controlled temperature environment or atmosphere, often by direct firing, but occasionally by convection or radiation heat transfer. Kilns are used in many different industries, and the type of device called a kiln varies with the industry.

"Kiln" usually refers to an oven or furnace which operates at sufficiently high temperature to require that its walls be constructed of refractory materials. The distinction between and kiln and a furnace is often based more on the industry than on the design of the device. For instance, an electrically heated refractory tunnel oven equipped with a stainless mesh conveyor belt to carry the work through is referred to as a tunnel kiln if it is used for sintering small ceramic electronic parts such as ferrite transformer cores. The same device used to sinter small metal parts from powdered aluminum alloys is called a sintering furnace.

Generally, the word "kiln is used when referring to high-temperature treatment of nonmetallic materials such as in the ceramic, the cement, and the lime industries. When melting is involved as in steel manufacture, the term "furnace" is used as in blast furnace and basic oxygen furnace. In glass manufacture, the melting furnace is often called a glass tank when the process is continuous. (emphasis supplied)

From the above authorities, it can be said that rotary kilns are generally used for calcining various materials such as rock, clays, granular materials, etc. Calcining is the heating of a

substance below the melting or fusing point, causing a loss of moisture (drying), reduction or oxidation. In other words, a kiln is generally used to dry or bake various materials, but is not used to melt of fuse metal. As set out above, a device used for the melting of metal is commonly known as a furnace. Further, in Casting Brass, by C. W. Amman, the author discusses the melting of various brass items, and describes the various types of furnaces that are generally used for such purposes. None are described as kilns.

The only Alabama case on point is Republic Steel Corporation v. Horn, supra, in which the Alabama Supreme Court in 1958 determined that an open hearth furnace used in the making of steel did not qualify as a kiln under the exemption statute in question. The Court reached its conclusion through application of the commonly accepted definition for kiln, as is necessary in the present case. The Court also applied the well-recognized principle that an exemption from taxation must be construed against the taxpayer and for the taxing authority. Brundidge Milling Co. v. State, 228 So.2d 479; Beam Dredging Corp. v. State, 454 So.2d 1009, appeal dismissed 105 S.Ct. 1156, rehearing denied 105 S.Ct. 2350.

While in some instances the words "kiln" and "furnace" can be used interchangeably, a kiln is generally used with reference to the high temperature treatment of non-metallic materials such as ceramic and cement, whereas any oven used in the melting and

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manufacture of metal constitutes a furnace. Accordingly, it must

be determined that the ovens or devices used by the Taxpayer in its

manufacturing process are not kilns within the purview of §40-23-

4(14), and thus, the fuel oil used in said devices is not exempt

from sales tax.

The above considered, the refund petitions in issue are due to

be denied.

Done this 28th day of April, 1987.

BILL THOMPSON

Chief Administrative Law Judge