301 Gervais Street, P.O. Box 125, Columbia, South Carolina 29214

SC PRIVATE LETTER RULING #92-9

TO: ABC Corporation

SUBJECT: Chimney Stack
(Sales and Use Tax)

TAX ANALYST: Deana West

REFERENCES: S.C. Code Ann. Section 12-36-2120 (Supp. 1991)
Regulation 117-174.120
Regulation 117-173

AUTHORITY: S.C. Code Ann. Section 12-4-320 (Supp. 1991)
SC Revenue Procedure #87-3

SCOPE: A Private Letter Ruling is a temporary document issued to a taxpayer, upon request, and it applies only to the specific facts or circumstances related in the request.

Private Letter Rulings have no precedential value and are not intended for distribution.

Question:

Are certain parts, attachments and components of a chimney stack used in the manufacture of electricity considered "machines", and therefore, exempt from sales and use tax?

Facts:

ABC is a corporation engaged primarily in manufacturing and selling electricity. ABC owns and operates the XYZ Generating Station located on the Saluda River below the Lake Murray dam. The station has two generating units that were both built in the late 1950's. The station also has two 250 foot chimneys (i.e. smoke stacks). The smoke stack assists in air pollution control, in that, it causes an imbalance in the atmospheric pressures inside the chimney and outside the chimney to throw the pollutants higher into the atmosphere for wider dispersion.

Since the original construction of the XYZ Station, a coal fired generating station, more stringent Federal and State air pollution control regulations and standards have been enacted. Today, regulations exist concerning ground level concentration requirements for certain pollutants, such as sulfur dioxide. The ambient air quality standards for the State of South Carolina are contained

in the Air Pollution Control Regulation, Regulation No. 62.5; Air Pollution Control Standard, Standard No. 2 and it provides, in part:

Pollutant	Measuring Interval	Micrograms Per Cubic Meter
Sulfur Dioxide	3 hours	1300*
	24 hours	365*
	Annual	80

* Not to be exceeded more than once a year.

Through modeling, it was determined that ground level concentrations for sulfur dioxide described above would at times be exceeded at the XYZ Station. It was also determined that wind passing over the Lake Murray Dam was causing turbulence and downdrafts that impacted the natural gas flow out of the two existing smoke stacks. As a result of these factors, the XYZ Station must at times be operated below 100% capacity to remain within the environmental particulate limits.

In order to remedy these problems, ABC considered the following options: (1) using a higher quality coal, (2) converting to natural gas, or (3) constructing a taller smoke stack.

The modeling study determined that even if the XYZ Station switched to a higher quality coal the ground level concentrations for sulfur dioxide could still be exceeded with the two existing smoke stacks. It was determined that switching from coal to natural gas would allow the XYZ Station to meet ground level concentrations with the existing two smoke stacks; however, this option was eliminated because of its cost.

The last option under consideration that would enable the XYZ Station to meet the environmental limits was replacement of the two existing smoke stacks with a single, taller smoke stack. A study was conducted by X, Inc., environmental consultants, to determine the stack height necessary to meet federal and state regulations. The study showed that a single 410 foot chimney was necessary to circumvent the adverse wind effects of the Lake Murray dam.

The study was submitted to the United States Environmental Protection Agency and to the South Carolina Department of Health and Environmental Control (DHEC), and each agency certified that the 410 foot chimney conformed to Good Engineering Practice (GEP) Guidelines for stack height determination. According to Section 123 of the 1977 Clean Air Act Amendments, GEP stack height is defined to be:

> "that stack height necessary to ensure that emissions from the stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies, or wakes which may be created by the source itself, nearby structures, or nearby terrain obstacles..."

In addition, DHEC certified to ABC Corporation that construction of the new chimney smoke stack was "necessary" and would "result in the elimination, mitigation, or prevention of air pollution."

On July 1, 1991, ABC began construction the new smoke stack. The major components of the project include the following:

1. 410 foot reinforced concrete column
2. concrete foundation
3. brick liners
4. breaching ducts
5. ladders
6. platforms
7. personnel elevator for safety in monitoring of pollution
8. motorized fans and vents located at the base and top of the structure
9. chimney roof
10. electrical system to supply lighting for aircraft safety

(See Exhibits 1 and 2 for a diagram of the new smoke stack.)

A short explanation of the mechanical purpose and function is provided for the brick liners, breaching ducts and the motorized fans referred to above.

Brick Liners - There are two independent brick liners within the interior of the concrete shell that extend 410 feet. The liners are composed of acid resistant brick with acid resistent mortar. Their purpose is to convey the hot gas from the breaching ducts at the bottom to the top of the chimney where the gas is discharged into the atmosphere.

Breaching Ducts - The breaching ducts serve as a metal transition device to convey the incoming gas from the horizontal duct at the bottom of the chimney into the brick liners on the interior of the chimney.

Motorized fans and vents - The induced fans are located between the baghouse outlet and the breaching ducts for the chimney. These fans provide the necessary pressure to pull the gas through the baghouse and send it through the breaching ducts into the brick liners within the interior of the chimney.

Discussion:

Code Section 12-36-2120(17) exempts from sales and use tax:

...the gross proceeds of sales of...machines used in manufacturing...tangible personal property for sale. 'Machines' include the parts of machines, attachments, and replacements used...on or in the operation of the machines and which are necessary to the operation of machines and are customarily so used.
Regulation 117-173 provides that the term "machine" described in Code Section 12-36-2120(17) includes machines that are required by state or federal agencies for the abatement of pollution caused by machines used in manufacturing tangible personal property for sale.

This regulation reads, in part:

> ...Frequently, these machines cannot be operated when the same pollute the air or water beyond regulated levels and in compliance with orders of agencies of the United States or of this state to abate or prevent the pollution of the air or water caused or threatened by the operation of such machines it is necessary to install other machines that are designed and operated exclusively for the purpose of abating or preventing this pollution. The purpose of this regulation is to classify the machines, their parts or attachments, as machines used in ...manufacturing tangible personal property when the same are installed and operated for compliance with an order of an agency of the United States or of this state to prevent or abate pollution of the air or water caused or threatened by the operation of other machines used in ...manufacturing of tangible personal property.
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> ...Any person engaged in the business of ...manufacturing of tangible personal property shall furnish the commission a certified statement from the ordering agency that any machine for which the exemption is claimed is necessary to prevent or abate water or air pollution caused or threatened by the operation of other machines that are used in the ...manufacturing of tangible personal property.

The law, therefore, provides that machines, their parts and attachments, required to be used by state or federal agencies to abate or prevent pollution caused by the operation of machines used in the manufacture of tangible personal property for sale, may qualify for the exemption found in Code Section 12-36-2120(17).

The South Carolina Court of Appeals reviewed the application of Code Section 12-36-2120(17) and Regulation 117-173 in Hercules Contractors and Engineers, Inc. v. South Carolina Tax Commission, 280 SC 426, 313 SE2d 300 (1984) with respect to three waste treatment facilities. One facility, Klopman Mills, treated waste that was produced in connection with their manufacture of textile products for sale. Since Klopman Mills could not lawfully operate without the pollution control machines, these machines, parts and attachments were necessary to the operation of the mill. Accordingly, the Court held these pollution control machines were machines within the meaning of Section 12-35-550(17) (recodified as 12-36-2120(17)) and Regulation 117-173 and were exempt from sales tax. The Court concluded:

This facility operates as one single entity, and that entity is a "machine". Its various parts and attachments are integral and necessary to the operation of the system as a whole. Even its railings, walkways and ladders are required by state and federal law and are thus necessary to the overall function of the system.

Likewise, in reviewing the above referenced statutes, the Tax Commission determined that pollution abatement devices used in connection with the manufacture of electricity for sale "operated exclusively in the abatement of pollution caused by the production of electricity" and, therefore, were machines or attachments within the meaning of Code Section 12-36-2120(17). See Commission Decision #92-19.

Conclusion:

The parts, attachments and components of the 410 foot chimney stack, as described in the facts, are "machines" required by state and federal law and are necessary and integral to the manufacture of electricity. These pollution control machines, therefore, are exempt from sales and use tax as provided under Section 12-36-2120(17) and Regulation 117-173.