North Carolina Department of Revenue

July 16, 2020

Re: Request for Written Determination

Dear [Client’s Name]:

The Department has completed its review of your request for a private letter ruling on behalf of your client, [Client’s Name] (“Taxpayer”). In making this written determination, the Department has considered the facts presented in your request.

This private letter ruling is a written determination issued under N.C. Gen. Stat. § 105-264.2 and applies the tax law to a specific set of existing facts furnished by you on behalf of Taxpayer. This written determination is applicable only to the taxpayer addressed herein and as such has no precedential value except to the taxpayer to whom the written determination is issued.

**Overview and Relevant Facts**

You advise, “[Taxpayer] is a recycling company that transforms residential and commercial recyclables into new products with distinctive names, character and use. [Taxpayer’s] raw materials include post-consumer paper, cardboard, plastic, clear and colored glass, aluminum, steel, and tin. [Taxpayer] acquires these raw materials from related parties, third party waste haulers and others. [Taxpayer] transforms these raw materials using a variety of activities and sophisticated machinery and equipment into finished products that conform to stringent industry standards of size, shape, and density. The finished goods are sold to businesses such as paper mills, manufacturers, and other industries as high-quality inputs for their own manufacturing processes.”
Further, you provide that “[t]he recycling process begins with the arrival of raw material to the recycling facility. This may take the form of ‘source-separated’ material consisting of recyclables already sorted by type, such as fibers and plastics, ‘commercial blend’ material, usually consisting of cardboard, containers, cans and bottles, and ‘single stream’ material, primarily consisting of curbside residential recyclables containing a commingled mass of recyclables of all sorts including paper, cardboard, plastics, glass, aluminum, steel, and tin. All this material is dumped onto a tipping floor by [Taxpayer’s] vehicles, municipal vehicles and vehicles owned by waste sellers or haulers.

“The next step in the recycling process is the diversion of source-separated commercial cardboard from the mass of commingled material on the tipping floor. This is accomplished by loading the source-separated commercial cardboard onto an incline conveyor with a front-end loader. The conveyor then deposits the material into a baling machine that compresses the cardboard into a tight, compact bundle of uniform shape and weight bound together by baling wire, ready for sale.

“The remaining comingled materials, both commercial and residential, are ‘fluffed’ by a front-end loader. This machine fluffs the material by picking up the material, then dropping it. This process disaggregates the stream of recyclables into separate elements.

“Once the raw material has been fluffed, it is fed into a drum feeder. This machine contains a large rotating drum with cleats that further fluffs the material and sends it onto an incline conveyor with a uniform density ensuring a proper depth of raw material across the belted surface, thus improving the effectiveness of the system.

“The incline conveyor feeds the material into a pre-sort conveyor. This conveyor is located on a platform where individuals manually remove contaminants, large pieces of metal and large plastic items that might wrap around or damage the high speed screens.

“The remaining material is then sent to an old corrugated cardboard (‘OCC’) screen. This machine contains two decks of rotating axles on which multiple elevated "stars" or shaped discs are mounted. The machine breaks and sorts the incoming material into two separate streams of heavier material while lighter material, primarily OCC, floats on top. The machine sends the OCC to an OCC quality control (‘QC’) station where sorters remove contaminants from the OCC and send the OCC to a storage bunker.

“The first stream of heavier material separated by the OCC screen consists of all material, primarily glass, less than two inches in length. This material is sent by a conveyor to a glass breaker screen. The glass breaker screen contains metal rotating discs designed to break the glass to a smaller size allowing the pieces to fall through the screen. After falling through the screen, the glass is sent to a glass cleaner system, which cleans the glass of paper shreds and contaminants before it is stored in a storage room.

“The second stream of heavier material separated by the OCC screen consists of all material between two and eight inches in length. This material is sent by conveyor to an
anti-wrap screen. This machine contains an array of stars (similar to the OCC Screen) that automatically separates paper and smaller OCC from the remainder of the stream.

“The paper and smaller OCC separated from the stream by the Anti-Wrap Screen is sent by conveyor to a QC Sort station where contaminants, OCC, and old mixed paper (‘OMP’) are manually picked out of the stream by sorters. The remainder of the stream, consisting primarily of old newspaper (‘ONP’) is sent to an ONP storage bunker.

“Lighter items that floated above the glass breaker screen and the anti-wrap screen are then sent to an optical sorter. The optical sorter automatically separates OMP from the rest of the stream. OMP is ejected from the stream by use of optical scanning and compressed air. The OMP is then sent to an OMP QC sort station where contaminants are removed and OMP is sent to a storage bunker.

“The remainder of the material stream (primarily containers) is sent to an electromagnet, where ferrous items are picked out of the stream and sent to a storage bunker.

“Non-ferrous material is then conveyed to a PET optical sorter. This machine ejects items made of a type of plastic known as polyethylene terephthalate (‘PET’) and sends it to a PET QC sort station, where contaminants are removed. The uncontaminated PET is then sent to a storage bunker.

“All material that is not ejected by the PET optical sorter is sent to an eddy current separator (‘ECS’). This machine uses electromagnetic induction to eject nonferrous materials (primarily aluminum cans) from the stream. These nonferrous materials are then sent to an aluminum QC sort station, where contaminants are removed, and the remaining uncontaminated non-ferrous material is sent to a storage bunker.

“The material that is not ejected by the ECS, consisting primarily of plastic items, is then sent to a container sort station. This station uses sorters to manually separate into three categories: high-density polyethylene (‘HDPE’) colored, HDPE natural, and polypropylene (‘PP’).

“All commodities that were separated and stored by the machinery are finally discharged onto a baler feed conveyor. This conveyor feeds a baler, which compresses the materials into a bale of uniform size and density wrapped with baling wire, ready for sale and reuse.”

Additionally, you provide that, “[t]he finished products produced through [Taxpayer’s] operations conform to detailed specifications as to yield, weight, size, density and content promulgated by the Institute of Scrap Recycling Industries, Inc. (‘ISRI’), the leading trade organization of the recycling industry. . . . [Taxpayer] guarantees that its products meet ISRI specifications, and all its deliveries to customers are inspected to ensure compliance with such specifications.”
Your request specifically discusses and describes the following pieces of equipment to be used at Taxpayer’s facility:

*Front-End Loader and Drum Feeder*

A front-end loader is a piece of heavy machinery that picks up raw materials deposited on the tipping floor and ‘fluffs’ the previously compacted materials moving them to the drum feeder. A drum feeder, which is a large rotating drum with cleats, or sharp projecting spikes, that further fluff and break apart any remaining compacted materials into their component parts. After the compacted raw material is broken apart into a steady stream of components, the drum feeder unloads its contents to be conveyed for further processing.

*Screening and Separating Machines*

After the initial processing by the front-end loader and drum feeder, a series of machines are used to isolate and process individual types of recyclable materials into marketable raw materials for sale.

OCC screens are used to remove cardboard from the full material stream for compacting and baling.

Glass breaker screens use large metal rotating disks that break glass and separate the pieces from the remaining materials.

Electro-magnets separate ferrous metals from the stream.

Eddy current separators use eddy currents fields to eject aluminum and non-ferrous metals from the flow of materials.

Optical sorters are used to remove mixed paper and terephthalate.

*Conveyors*

Conveyors are located throughout the manufacturing process, moving the fluffed materials into the drum feeder and then to the various screening and separating machines and finally to balers.

*Balers*

The balers are the final part of the processing stage, where the various materials are packaged, compressed and wrapped with baling wire to make them ready for sale to customers.
You continue, “[a]ll of the equipment described above will be used in the production phase of [Taxpayer’s] proposed facility.

“The production phase begins once raw materials are delivered to the facility’s tipping floor. The front-end loader and drum feeder are the first pieces of equipment in [Taxpayer’s] production line, taking compacted raw materials from the tipping floor, fluffing them and breaking them into component parts.

“The screening and separating machines (OCC screens, glass breaker screens, eddy current separators, and optical sorters) are at the core of the production phase and contribute to the manufacturing process by taking valueless post-consumer material and separating, sorting, crushing, and breaking them into marketable goods for sale as input material for industrial clients. The conveyors are located throughout the manufacturing process, moving the fluffed materials into the drum feeder, transferring material to the screens, separators, magnets and optical sorters, and then to compactors or balers. . . .

“The balers are the final part of the production phase, where the commodities are packaged, compressed and wrapped with baling wire before being sent to storage for sale to customers. . . .”

You state, “[Taxpayer’s] recycling facility will create new materials with distinctive names, characters and uses. . . . The name of each particular grade or product carries rigid specifications as to size, shape, density and content. . . . All product grades prepared by [Taxpayer] are warranted and guaranteed as to their specifications.”

**Issue**

Does Taxpayer’s purchase of certain equipment described above qualify as mill machinery or mill machinery parts and accessories for purposes of the sales tax exemption set forth in N.C. Gen. Stat. § 105-164.13(5e)?

**Applicable Statutes and References**

Under Chapter 105 of the North Carolina General Statutes, Article 5 ("Article") of the North Carolina Revenue Act ("Act")\(^1\), N.C. Gen. Stat. § 105-164.1 et. seq., Subchapter VIII: Local Government Sales and Use Tax, N.C. Gen. Stat. § 105-463 et. seq.; and Chapter 1096 of the 1967 Session Laws; State, local, and applicable transit sales and use taxes are imposed on a retailer engaged in business in the State on the retailer’s net taxable sales of tangible personal property, certain digital property, and certain services at the

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\(^1\) References to the Act and North Carolina General Statutes are based on the laws in effect as of the date of issuance of this private letter ruling except as otherwise noted herein.
applicable State, applicable local, and applicable transit rates of sales and use tax. N.C. Gen. Stat. § 105-164.3.

N.C. Gen. Stat. § 105-164.13(5e) provides an exemption from sales and use tax for “[s]ales of mill machinery or mill machinery parts or accessories to any of the persons listed in this subdivision. For purposes of this subdivision, the term ‘accessories’ does not include electricity. The persons are:

a. A manufacturing industry or plant. A manufacturing industry or plant does not include (i) a delicatessen, cafe, cafeteria, restaurant, or another similar retailer that is principally engaged in the retail sale of food prepared by it for consumption on or off its premises or (ii) a production company.

b. A contractor or subcontractor if the purchase is for use in the performance of a contract with a manufacturing industry or plant.

c. A subcontractor if the purchase is for use in the performance of a contract with a general contractor that has a contract with a manufacturing industry or plant.”

Sales and Use Tax Bulletin 57-1 provides, “[t]he following classifications are based on the three principal activities of a manufacturing industry or plant and shall be followed by manufacturers purchasing tangible personal property that is used or consumed during the different phases of the operation of an industrial plant:

1. Production as a phase of industrial or manufacturing operations shall mean all steps performed in processing and refining rooms, and in other quarters and departments of a plant, where conditioning, treating, or other operations are done on ingredient materials as an actual routine on the assembly or processing line turning out a finished product of manufacture for sale. It also includes:

a. The movement of raw materials or ingredients from an inventory or a stockpile located on the premises of the manufacturing facility to the assembly or processing line.

b. The movement of goods in process along the assembly or processing line.

c. The movement of manufactured products from the assembly or processing line into shipping or storage areas and yards located on the premises of the manufacturing facility.

d. The work of experimentation and research performed on the manufactured products.

Purchases by a manufacturing industry or plant of machinery or parts or accessories for the machinery for use in ’production,’ as defined above, are classified as mill machinery or mill machinery parts or accessories. Purchases by a manufacturing industry or plant of research and development equipment and supplies for quality control or the improvement of its manufactured products or for
development of products which it will manufacture are classified as mill machinery or mill machinery parts or accessories. Items that are not classified as mill machinery or mill machinery parts or accessories when purchased by manufacturing industries and plants for use in their research and development areas include such items as desks, calculators, computers used for administrative purposes, and chairs which are subject to the general State, applicable local, and applicable transit rates of sales and use tax.

Production does not include any activity connected with the movement of raw materials or ingredients into inventory nor does it include ‘distribution’ or ‘administration’ as defined in the subsections below. Sales to manufacturing industries and plants of machinery, parts, or accessories for such machinery, and other tangible personal property used in the movement of raw materials or ingredients into inventory or in ‘distribution’ activities, as defined in the subsection below, or which are used for similar purposes are subject to the general State, applicable local, and applicable transit rates of sales and use tax.

2. Distribution with reference to manufacturing industries and plants shall mean any activity connected with the movement of manufactured products within storage warehouses, shipping rooms, and other such finished product storage areas and the removal of such products therefrom for sale or shipment. Sales of distribution equipment to manufacturing industries and plants are subject to the general State, applicable local, and applicable transit rates of sales and use tax.

3. Administration with reference to manufacturing industries and plants shall mean and include the administrative work of offices, promotion of sales, and collection of accounts. Sales of administrative equipment and supplies, such as office equipment, paper, pens, pencils, stamps, paper cutters, printer form, file cabinets, scissors, staplers, desk trays, and other miscellaneous tangible personal property generally sold for office use, furniture, and fixtures are subject to the general State, applicable local, and applicable transit rates of sales and use tax."

**Ruling**

Taxpayer applies skill and labor to a multifarious stream of mixed refuse using sophisticated equipment to produce a variety of new, different, and distinctive products with a ready market and having a commercial value in excess of the original raw materials. Taxpayer’s purchases of equipment described above qualify as mill machinery or mill machinery parts and accessories for purposes of the sales and use tax exemption set forth in N.C. Gen. Stat. § 105-164.13(5e), provided the equipment is used in the “production” phase as defined in Sales and Use Tax Bulletin 57-1. Any equipment used prior to or subsequent to the “production” phase as defined in Sales and Use Tax Bulletin 57-1 is subject to the general State, applicable local, and applicable transit rates of sales and use tax.
This ruling is based solely on the facts submitted or available to the Department of Revenue for consideration of the transactions described. If the facts and circumstances given are not accurate, or if they change, then the taxpayer requesting this ruling may not rely on it. If a taxpayer relies on this letter ruling and the Department discovers, upon examination, that the fact situation of the taxpayer is different in any material aspect from the facts and circumstances given in this letter ruling, the letter ruling will not afford the taxpayer any protection. It should be noted that this letter ruling is not to be cited as precedent and that a change in statute, a regulation, or case law could void this ruling.

Issued on behalf of the Secretary of Revenue
By the Sales and Use Tax Division