

New York State Department of Taxation and Finance
Office of Tax Policy Analysis
Technical Services Division

TSB-A-03(44)S
Sales Tax
December 29, 2003

STATE OF NEW YORK
COMMISSIONER OF TAXATION AND FINANCE

ADVISORY OPINION

PETITION NO. S010228A

On February 28, 2001, the Department of Taxation and Finance received a Petition for Advisory Opinion from RSM McGladrey, 800 Liberty Building, Buffalo, NY 14202.

The issue raised by Petitioner, RSM McGladrey, is whether Company X's purchases of tangible personal property for the development, design and production of a clean in-process system (hereinafter "CIP system") qualifies for the exemption from sales tax afforded manufacturers on certain purchases of machinery and equipment, tools and supplies used in the production process.

Petitioner submits the following facts as the basis for this Advisory Opinion.

Company X acts as a distributor of CIP systems, but because of growing customer needs, also develops, designs and manufactures CIP systems for its customers. Company X has employees who develop methods and procedures to improve the function or process of the CIP system. CIP systems are used by, among others, food, beverage and pharmaceutical manufacturers to maintain a sanitary environment in material handling during the production process. These systems are used by Company X's customers during their production process to move fluid materials from one phase of the production process to the next through a series of pipes and computer controlled valves which allow the flow of materials to be precisely regulated.

When a customer requests a system to meet its needs, Company X's engineers design a complete sanitary process. The designs are created by means of Computer Aided Design systems (CADs). The engineers provide color-coded flow schematics annotated with pressures, temperatures and flow charts. Company X also writes the software program that runs the control system for the CIP. Once the design is completed and the software is written to run the controls, Company X manufactures the CIP system.

Company X's employees use a variety of tools, welding equipment and supplies to manufacture the CIP system. The system is pre-piped, pre-wired and shop tested. Depending upon system size and scope, much of the work is completed at Company X's location and components of the system are placed on pallets for rapid installation at the customer's location. Because of the large size of the CIP system, the assembly of the CIP system may be continued at the customer's location. Typically, the CIP system is assembled in an area of the customer's facility, then brought into the production area and integrally installed into the customer's manufacturing line.

Applicable law and regulations

Section 1101(b)(9)(i) of the Tax Law defines the term capital improvement as:

An addition or alteration to real property which:

(A) Substantially adds to the value of the real property, or appreciably prolongs the useful life of the real property; and

(B) Becomes part of the real property or is permanently affixed to the real property so that removal would cause material damage to the property or article itself; and

(C) Is intended to become a permanent installation.

Section 1105 of the Tax Law imposes tax, in part, on:

(a) The receipts from every retail sale of tangible personal property, except as otherwise provided in this article.

* * *

(c) The receipts from every sale, except for resale, of the following services:

* * *

(2) Producing, fabricating, processing, printing or imprinting tangible personal property, performed for a person who directly or indirectly furnishes the tangible personal property, not purchased by him for resale, upon which services are performed.

(3) Installing tangible personal property, excluding a mobile home, or maintaining, servicing or repairing tangible personal property, including a mobile home, not held for sale in the regular course of business, whether or not the services are performed directly or by means of coin-operated equipment or by any other means, and whether or not any tangible personal property is transferred in conjunction therewith, except:

* * *

(iii) for installing property which, when installed, will constitute an addition or capital improvement to real property, property or land, as the terms real property, property or land are defined in the real property tax law as such term capital improvement is defined in paragraph nine of subdivision (b) of section eleven hundred one of this chapter; . . .

Section 1105-B of the Tax Law provides:

Exemptions for certain parts, tools, supplies and services relating to tangible personal property used or consumed in production

(a) Receipts from the retail sales of parts with a useful life of one year or less, tools and supplies for use or consumption *directly and predominantly* in the production of tangible personal property, gas, electricity, refrigeration or steam for sale by manufacturing, processing, generating, assembling, refining, mining or extracting shall be exempt from the tax imposed by subdivision (a) of section eleven hundred five of this article. (Emphasis added)

(b) Receipts from every sale of the services of installing, repairing, maintaining or servicing the tangible personal property described in paragraph twelve of subdivision (a) of section eleven hundred fifteen of this article, including the parts with a useful life of one year or less, tools and supplies described in subdivision (a) of this section, to the extent subject to such tax, shall be exempt from the tax on sales imposed under subdivision (c) of section eleven hundred five of this article.

(c) Parts with a useful life of one year or less, tools and supplies described in subdivision (a) of this section and services described in subdivision (b) of this section shall be exempt from the compensating use tax imposed by section eleven hundred ten of this article.

Section 1110 of the Tax Law provides, in part:

Imposition of compensating use tax

(a) Except to the extent that property or services have already been or will be subject to the sales tax under this article, there is hereby imposed on every person a use tax for the use within this state on and after June first, nineteen hundred seventy-one except as otherwise exempted under this article, (A) of any tangible personal property purchased at retail, (B) of any tangible personal property (other than computer software used by the author or other creator) manufactured, processed or assembled by the user, (i) if items of the same kind of tangible personal property are offered for sale by him in the regular course of business or (ii) if items are used as such or incorporated into a structure, building or real property by a contractor, subcontractor or repairman in erecting structures or buildings, or building on, or otherwise adding to, altering, improving, maintaining, servicing or repairing real property, property or land, as the terms real property, property or land are defined in the real property tax law, if items of the same kind are not offered for sale as such by such contractor, subcontractor or repairman or other user in the regular course of business, . . .

Section 1115(a) of the Tax Law provides, in part:

Receipts from the following shall be exempt from the tax on retail sales imposed under subdivision (a) of section eleven hundred five and the compensating use tax imposed under section eleven hundred ten:

* * *

(12) Machinery or equipment for use or consumption *directly and predominantly* in the production of tangible personal property, gas, electricity, refrigeration or steam for sale, by manufacturing. . . . (Emphasis added)

* * *

(35) Computer system hardware used or consumed *directly and predominantly* in designing and developing computer software for sale. . . . (Emphasis added)

Section 527.4 of the Sales and Use Tax Regulations provides, in part:

(a) Imposition. (1) Section 1105 (c)(2) of the Tax Law imposes a tax on the receipts from services of producing, fabricating, processing, printing or imprinting tangible personal property, performed for a person who directly or indirectly furnishes the property.

(2) The enumerated services are not taxable when:

(i) purchased for resale; or

(ii) performed on property intended for resale.

* * *

(b) Producing. Producing means the manufacture of a product from one or more raw materials and any process in which a raw material loses its identity when the production process is completed.

Section 527.5 (a) of the Sales and Use Tax Regulations provides, in part:

Imposition. (1) The tax is imposed on receipts from every sale of the services of installing, maintaining, servicing or repairing tangible personal property, by any means including coin-operated machines, whether or not any tangible personal property is transferred in conjunction with the services.

(2) Installing means setting up tangible personal property or putting it in place for use.

Section 528.13 of the Sales and Use Tax Regulations provides, in part:

(a) Exemption. (1) . . . An exemption is allowed from the tax imposed under subdivisions (a) and (c) of section 1105 of the Tax Law, and from the compensating use tax imposed under section 1110 of the Tax Law, for receipts from sales of the following:

(i) Machinery or equipment (including parts with a useful life of more than one year) used or consumed *directly and predominantly* in the production for sale of tangible personal property, gas, electricity, refrigeration or steam, by manufacturing, processing, generating, assembling, refining, mining or extracting. . . . (Emphasis added)

* * *

(iii)(a) Parts with a useful life of one year or less, tools or supplies for use or consumption *directly and predominantly* in the production of tangible personal property, gas, electricity, refrigeration or steam for sale by manufacturing, processing, generating, assembling, refining, mining or extracting. (Emphasis added)

(b) Parts with a useful life of one year or less, tools or supplies for use *directly and predominantly* in or on the equipment or apparatus described in subparagraph (ii) of this paragraph. (Emphasis added)

(iv) The services of installing, repairing, maintaining or servicing the exempt machinery, equipment, apparatus, parts, tools or supplies identified in subparagraph (i), (ii) or (iii) of this paragraph.

* * *

(b) Production. (1) The activities listed in paragraph (a)(1) of this section are classified as administration, production or distribution.

(i) Administration includes activities such as sales promotion, general office work, credit and collection, purchasing, maintenance, transporting, receiving and testing of raw materials and clerical work in production such as preparation of work, production and time records.

(ii) Production includes the production line of the plant starting with the handling and storage of raw materials at the plant site and continuing through the last step of production where the product is finished and packaged for sale.

(iii) Distribution includes all operations subsequent to production, such as storing, displaying, selling, loading and shipping finished products.

(2) The exemption applies only to machinery and equipment used *directly and predominantly* in the production phase. Machinery and equipment partly used in the administration and distribution phases does not qualify for the exemption, unless it is used *directly and predominantly* in the production phase. (Emphasis added)

(3) The determination of when production begins is dependent upon the procedure used in a plant. If on receiving raw materials, the purchaser weighs, inspects, measures or tests the material prior to placement into storage, production begins with placement into storage, and the prior activities are administrative. If the materials are unloaded and placed in storage for production without such activities, the unloading is the beginning of production.

* * *

(4) Production ends when the product is ready to be sold.

* * *

(c) *Directly and predominantly.* (1) Directly means the machinery or equipment must, during the production phase of a process: (Emphasis in original)

(i) act upon or effect a change in material to form the product to be sold, or

(ii) have an active causal relationship in the production of the product to be sold, or

(iii) be used in the handling, storage, or conveyance of materials or the product to be sold, or

(iv) be used to place the product to be sold in the package in which it will enter the stream of commerce.

(2) Usage in activities collateral to the actual production process is not deemed to be used directly in production.

* * *

(3) Machinery used to produce other machinery or equipment or parts for self use in production is considered to be used directly in production.

* * *

Example 10: A manufacturer uses a lathe in a machine shop to make new machinery which is used to produce tangible personal property for sale. The lathe is used directly in production.

(4) Machinery or equipment is used predominantly in production, if over 50 percent of its use is directly in the production phase of a process.

* * *

(e)(2) The term *tool* means a manually operated implement for performing a task.

* * *

(3) The term *supply* means an item of tangible personal property used in the maintenance of machinery or equipment and an item of tangible personal property used or consumed in production, whose use is incidental to such production, or which is expendable.

Section 541.6(d) of the Sales and Use Tax Regulations provides, in part:

Charges for on-site assembly. (1) On-site assembly performed by a manufacturer-installer or a contractor hired by the manufacturer to perform such assembly is recognized as a continuation of the manufacturing process in those instances where it is demonstrated that machinery and equipment by virtue of its size, weight, and the like could not be completely assembled prior to delivery to the customer. The cost of such assembly becomes part of the selling price of the machinery and equipment. However in order for the charge by the contractor to the manufacturer to be exempt as a service to property being resold, the contractor must obtain a resale certificate from the manufacturer. The charge by the vendor of the machinery and equipment for assembly is taxable if the machinery and equipment is subject to sales or use tax and exempt if the machinery and equipment is exempt from sales and use tax. When a contract is on a lump-sum basis to furnish and install machinery and equipment involving on-site assembly and installation charges, reasonable engineering estimates may be used to determine the amount of the price relating to the taxable installation after on-site assembly has been completed.

(2) On-site assembly is completed at the point where the machinery and equipment is assembled into a completed unit. Any further charges are charges for installing, maintaining and servicing machinery and equipment . . . Such charges with respect to production machinery and equipment are exempt from the State tax.

(3) Installation charges include but are not limited to:

(i) the wiring from the electrical panel to the machinery and equipment to make it operational; and

(ii) attaching the machinery and equipment by bolts or other means to a foundation.

Technical Services Bureau Memorandum entitled *Summary of the 1999 Sales and Compensating Use Tax Budget Legislation*, November 15, 1999, TSB-M-99(4)S, provides that effective March 1, 2000:

The Tax Law was amended to eliminate all local sales and use taxes on the services of installing, repairing, maintaining and servicing (i) the parts, tools, supplies, that are exempt under Section 1105-B, and (ii) machinery and equipment that are exempt from tax under Section 1115(a)(12) of the Tax Law, thereby conforming the treatment of these services to that of the State and New York City.

Opinion

In this case, Company X's engineers design a complete sanitary process used in the manufacture of food, beverages or pharmaceuticals. The designs are created by means of a CAD. Company X also writes the software program that runs the control system for the complete sanitary process equipment. Once the design is completed and the software is written to run the controls, Company X manufactures the CIP system. Company X's employees use a variety of tools, welding equipment and supplies to manufacture the CIP system. The system is pre-piped, pre-wired and shop tested at Petitioner's facility. Depending upon system size and scope, much of the work is completed at Company X's location and components of the system are placed on pallets for rapid installation at the customer's location. Because of the large size of the CIP system, the assembly of the CIP system may be continued at the customer's location. Typically, the CIP system is assembled in an area of the customer's facility, then brought into the production area and installed in the customer's manufacturing line.

Sales of Tangible Personal Property Versus Sales of Capital Improvements to Real Property

From the facts presented in this Petition, it appears that Company X's sales of CIP systems are on an "as installed" basis. The exemptions from tax provided under sections 1105-B(a) and 1115(a)(12) of the Tax Law apply to purchases of machinery, equipment, parts, tools and supplies used directly and predominantly in the production of tangible personal property for sale. Where a manufacturer installs its manufactured product and such installation constitutes a capital improvement to real property as defined in section 1101(b)(9)(i) of the Tax Law, the manufacturer is not making a sale of tangible personal property, but rather, is making a sale of a service to its customer's real property. Where such a manufacturer installs 50% or more of its product as a capital improvement, it is not engaged predominantly in the sale of tangible personal property, and therefore, its purchases of machinery, equipment, parts, tools and supplies for use in manufacturing

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such product are not exempt from sales and use tax. See *Bloch Industries*, Adv Op, June 19, 1992, TSB-A-92(48)S; *Matter of Midland Asphalt Corp. V. Chu*, 136 AD 2d 851.

Whether or not a particular installation qualifies as a capital improvement to real property is a question that is beyond the scope of an Advisory Opinion and must be determined by examining the facts and circumstances of the particular installation. In general, however, movable machinery or equipment used for trade or manufacturing and not essential for the support of a building, structure, or superstructure, and removable without material injury thereto, will not be a capital improvement. See Technical Services Bureau Memorandum entitled *Materials and Installation Contracts in Manufacturing Process*, July 21, 1978, TSB-M-78(15)S. Bolting and welding equipment to real property does not, in and of itself, create the degree of permanence necessary to establish that a particular installation is a capital improvement. See *Peek 'n Peak Recreation, Inc.*, Adv Op St Tx Comm, July 9, 1987, TSB-A-87(24)S. The test is not merely whether machinery and equipment is affixed to real property, but rather, whether the machinery and equipment is affixed to such a degree that it loses its separate identity and becomes part of the real property or to such a degree that removal would cause material damage to the property or the article. Material damage is not considered to exist merely because the property in question is worth less when it is removed than it was worth when it was installed and in operating condition. See *McKesson Drug Company*, Adv Op St Tx Comm, March 5, 1987, TSB-A-87(13)S; *PricewaterhouseCoopers, LLP*, Adv Op Comm T&F, November 12, 1999, TSB-A-99(47)S.

Accordingly, to the extent that machinery, equipment, parts, tools and supplies are used or consumed by Company X to produce CIP systems that are installed as a capital improvement by Company X at customer locations, such machinery, equipment, parts, tools and supplies are not used in the production of tangible personal property for sale.

It should be noted that if Company X, in the performance of a contract, installs production machinery and equipment that qualifies for exemption under section 1115(a)(12) of the Tax Law, and such machinery and equipment is installed as a capital improvement, Company X may purchase the machinery and equipment which is to be installed exempt from sales tax. See section 541.6(a) of the Sales and Use Tax Regulations. In such instance, Company X should obtain from its customer a properly completed *Exempt Use Certificate* (Form ST-121) which identifies the machinery and equipment that qualifies for exemption, as well as a *Certificate of Capital Improvement* (Form ST-124). Company X should furnish its suppliers with a properly completed *Contractor Exempt Purchase Certificate* (Form ST-120.1) when purchasing the machinery and equipment.

Pursuant to sections 1105-B and 1115(a)(12) of the Tax Law and section 528.13 of the Sales and Use Tax Regulations, to be eligible for the production exemption, machinery and equipment, parts, tools and supplies must be used directly and predominantly in the production of tangible personal property for sale. Pursuant to section 528.13(c) of the Sales and Use Tax Regulations, “directly” means that the machinery or equipment must, during the production phase of a process,

either act upon or effect a change in material to form the product to be sold; have an active causal relationship in the production of the product to be sold; be used in the handling, storage, or conveyance of materials or the product to be sold; or be used to place the product to be sold in the package in which it will enter the stream of commerce. Machinery or equipment, parts, tools and supplies are used “predominantly in production” if more than 50 percent of their use is directly in the production phase of a process. Thus, where the CIP systems as installed by Company X retain their identity as tangible personal property, the machinery and equipment, parts, tools and supplies, including tools used for on-site assembly of the CIP system, used directly and predominantly by Company X in the production of such CIP systems (tangible personal property) for sale, are eligible for exemption from State and local sales and compensating use taxes. An *Exempt Use Certificate* should be used to claim the exemption from sales tax on the purchase of machinery and equipment, parts, tools and supplies used directly and predominantly in the production process.

Tool Purchases

Pursuant to section 528.13(a)(i)(iii) of the Sales and Use Tax Regulations, the purchase by Company X of tools to be used directly and predominantly in production are exempt from State and local sales and use taxes. The tools must be necessary to and used within the production process. Accordingly, if the tools purchased by Company X are used directly and predominantly in the production and qualifying on-site assembly of CIP systems which do not qualify as a capital improvement, the purchase of such tools is not subject to State and local sales and compensating use taxes. The purchase of tools used predominantly in the general maintenance, repair, installation, or servicing of tangible personal property, whether the property installed constitutes production machinery and equipment or not, is subject to tax since the tools are not used predominantly in production. An *Exempt Use Certificate* should be used to claim the exemption from sales tax on the purchase of tools used directly and predominantly in the production process.

Supply Purchases

Pursuant to Section 1105-B(a) of the Tax Law, the purchase by Company X of supplies used directly and predominantly in the production of CIP systems for sale on an installed basis where such property retains its identity as tangible personal property after installation (i.e., the installation is not a capital improvement) will also be exempt from State and local sales and use taxes. Supplies are used directly and predominantly in the production process when they are used in the operation of the production machinery, equipment, parts and tools used by Company X in its production of CIP systems for sale. Accordingly, if any of the supplies purchased by Company X are used directly and predominantly in the production of tangible personal property for sale, purchases of such supplies are not subject to State and local sales and compensating use taxes. An *Exempt Use Certificate* should be used to claim the exemption from sales tax on the purchase of supplies used directly and predominantly in the production process.

On-Site Assembly

The production process generally begins when the materials that serve as raw materials for the process are received at the production site. The production process ends when the product is completed, packaged, and ready for sale. The on-site assembly of machinery or equipment constituting the CIP systems at the site of the purchaser will sometimes be recognized as a continuation of the manufacturing process. See section 541.6(d) of the Sales and Use Tax Regulations. On-site assembly has been recognized as a continuation of the manufacturing process in those instances where it is demonstrated that the tangible personal property, by virtue of its size, weight, etc. could not be completely assembled prior to delivery to the customer. When on-site assembly is considered to be a continuation of the manufacturing process, the cost of such assembly becomes part of the selling price of the tangible personal property and the taxability of the assembly cost is determined by the sales tax status of the tangible personal property. For on-site assembly to be deemed a continuation of the manufacturing process, the assembly labor must be provided by the manufacturer of the equipment and the cost for the assembly must be included in the selling price of the equipment. See *Hopkins & Blemel, Inc.*, Dec St Tx Comm, November 17, 1983, TSB-H-83(185)S. Purchases of tools used directly and predominantly in this activity and the actual production of the CIP system at Company X's facility may qualify for exemption from the tax under section 1115(a)(12) of the Tax Law. However, because tools must be used more than 50% of the time directly in production to be exempt from tax, the tools will qualify for exemption only if over 50% of their use is in these activities. Use of tools to install, maintain, repair or service the CIP system after it has been assembled does not constitute use directly in production. Where tools are used 50% or more of the time to install, maintain, repair or service the CIP system, the tools will not qualify for exemption and the purchase of such tools is subject to the sales or use tax.

On-site assembly is completed at the point where the machinery and equipment are assembled into a completed unit. Any further charges for services performed on the machinery and equipment at the job site are charges for installing, maintaining or servicing the machinery and equipment. See section 541.6(d)(2) of the Sales and Use Tax Regulations.

Charges by Company X for installing, maintaining or servicing a CIP system which will be used by the purchaser directly and predominantly in the production of tangible personal property for sale are exempt from State and local sales and use taxes. See Technical Services Bureau Memorandum entitled *Summary of the 1999 Sales and Compensating Use Tax Budget Legislation*, November 29, 1999, TSB-M-99(4)S. The purchase of tools and supplies used 50% or more of the time to install tangible personal property including production equipment, or in other activities which do not qualify for the production exemption, is subject to tax. See section 527.5(a) of the Sales and Use Tax Regulations for the definition of the term "installation."

Computer Aided Design Systems

Although designing a product, including the creation of color-coded flow schematics annotated with pressures, temperatures and flow charts, may be an important step in the manufacturing process, the Computer Aided Design System (CAD) is not directly used in the

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production process when put to this use. First, the CAD does not act upon material to form a product for sale since the schematics produced by the CAD are not sold. Secondly, the CAD has no active causal relationship in the production of the product sold since neither the CAD nor the schematics produced by the CAD play an active role in the production process. Finally, the CAD is clearly not used in the handling or storage of materials or the packaging of products. Since the CAD is not used directly in production within the meaning and intent of section 1115(a)(12) of the Tax Law, it does not qualify for exemption. See *Peerless-Winsmith, Inc.*, Adv Op Comm T & F, February 19, 1992, TSB-A-92(10)S.

If the CAD is used to produce software which is written to run the CIP system controls, and the software is sold as part of the CIP system, the CAD used to produce the software is eligible for the exemption provided for computer hardware used directly and predominantly in designing and developing computer software (both prewritten and custom) for sale under section 1115(a)(35) of the Tax Law.

However, because computer hardware must be used more than 50% of the time directly in production to be exempt from tax, the CAD will qualify only if over 50% of its use is in producing such software. As prewritten software is tangible personal property, software used to produce prewritten software for sale may qualify for exemption pursuant to section 1115(a)(12) or section 1105-B of the Tax Law. If the software produced for sale is custom software (i.e., not tangible personal property), the software Company X uses to produce the custom software for sale does not qualify for exemption pursuant to section 1115(a)(12) or section 1105-B of the Tax Law unless the same software is used more than 50% of the time to produce prewritten software for sale.

DATED: December 29, 2003

/s/
Jonathan Pessen
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Technical Services Division

NOTE: The opinions expressed in Advisory Opinions are limited to the facts set forth therein.