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Preface

This procedure manual has been written for the auditor. It is to be used as a training tool and as a reference guide. When forms are used as exhibits, they are shown with information correctly completed. References to AM Memos, fiche, rulings and statutes are given when needed. References to taxability of individual items, administrative policies, or tax law and rules are provided for guidance of field auditors and are subject to change due to administrative hearings and actions of courts or the legislature.

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Introduction

Manufacturing includes fabrication, which is making, building, creating, producing, or assembling components of tangible personal property (TPP) for sale, including making TPP work in a new or different manner. It also includes processing, which is the physical application of the material and labor necessary to modify or to change the characteristics of TPP for sale.

Manufacturing **does not include** extracting, gathering, arranging, or sorting raw materials or inventory in preparation of production. It does not include the mere packing, unpacking, or shelving of a product, remodeling, or the repair of TPP belonging to another by restoring it to its original condition.

Determining whether a taxpayer is actually manufacturing and, if so, when the process actually begins and ends are two important steps when beginning an audit. Taking a tour of the taxpayer's operations will aid the auditor in making these decisions. The tour should be taken with the plant operations manager or another person actively involved in the day-to-day operations who can provide a detailed description of each stage of the process, each piece of equipment, and all materials used in the process. If the taxpayer qualifies as a manufacturer, tax exemptions are available for purchases as indicated in Section 151.318 of the statute and Rule 3.300.

Other than the obvious types of industries that routinely come to mind when thinking of manufacturers, such as automobile makers, refineries, or other factories, there are businesses, such as restaurants, newspapers, television stations, printers, and photographers, that also qualify for manufacturing exemptions.

Pre-Audit Research

The process of pre-audit research should begin before the audit fieldwork begins. Before the fieldwork begins research on the taxpayer should be performed utilizing the following:

- Tax Statutes: Review the applicable manufacturing statutes in Chapter 151. Special attention should be noted for the exempt items.
- Tax Rules: Review the applicable rules for Manufacturing; Rule 3.300 Manufacturing; Custom Manufacturing; Fabricating; Processing; Rule 3.295 Natural Gas and Electricity; Rule 3.314 Wrapping, Packing, Packing Supplies, Containers, Labels, Tags, Export Packing, and Stevedoring Materials and Supplies
- STAR: Research for similar taxpayers, processes, similar equipment, etc.
- Internet: Research taxpayer website for references to types of products manufactured, equipment used, how the manufacturing process begins and ends, locations of the taxpayer, etc. After fieldwork begins the Internet can be used to look up equipment information. Print any necessary information found in case websites are changed or updated after research.
- CICS: Review typical screens, XISUMM, XICOLL, XILOCA, RCSUMI, etc.
- Prior Audit: Review the history to see if there is a prior audit on the taxpayer. If so, review the audit file for previous errors and audit procedures, i.e. if a sample or detail was performed, accounts of interest, etc.

Entrance Conference

In addition to the standard topics to discuss during the entrance conference, as listed in the Auditing Fundamentals manual, other topics to consider when auditing a manufacturer include the following:

- Locate all manufacturing plants –The auditor may need to coordinate a trip to other facilities or request assist work from another audit office. Tours should be taken of all facilities to ensure that the auditor has a clear understanding of the taxpayer’s operation.
- Talk to the taxpayer to see if there has been any corporate restructuring during the audit period.
- Determine the types of items manufactured at each facility – It is possible for the manufacturer to produce more than one type of product at each facility. Likewise, different types of products and/or facilities may warrant the taxpayer to generate separate types of sales invoices.
- Establish the manufacturing “bookends” or outside parameters of the manufacturing process – That is, at what stage does the taxpayer consider the manufacturing process to begin and end? The beginning and ending stages may differ from the auditor’s interpretation. As a result, when reviewing purchases, the auditor may determine that either additional tax or tax credit is due.
- Review the utility study – If gas or electricity is measured by one meter, which supports both manufacturing and non-manufacturing items, a predominant usage study must be available for the auditor’s review.
- Request a plant tour of the taxpayer’s manufacturing and non-manufacturing facilities if possible.
- Verify tax procedures – Is tax accrued upon purchase or when the item is pulled from inventory?

Plant Tours

A plant tour should be scheduled when scheduling the entrance conference or very soon after the entrance conference. Request manufacturing process flowcharts, plant diagrams, photographs, company brochures, and any other material that will be helpful in understanding the taxpayer's manufacturing process. It is recommended to have a company engineer or other knowledgeable employee to describe the manufacturing process and equipment/machines used. It is also recommended to have the taxpayer's asset listing for reference in the tour. If possible, the auditor should ask the taxpayer to be able to observe the manufacturing process from start to finish or during a specific phase of the process. The auditor should ask as many questions as needed to understand all the equipment used and the manufacturing process. It might be necessary to tour the facility more than once to gain a clear understanding of the taxpayer's business operations and manufacturing process.

During the plant tour determine the answers to the following questions:

- Are equipment/machines affixed to the realty?
- How many pieces of equipment are in the facility?
- How many pieces of equipment are considered to be part of the manufacturing process?
- What different identifiable areas are in the facility, i.e. employee offices, storage, sorting, assembling, testing, packaging, etc.?
- What types of equipment control manufacturing machines or the manufacturing process, i.e. computers? What other work can be done from the control equipment, i.e. checking e-mails, access Internet, etc.?
- Is any of the equipment used for non-manufacturing purposes?
- How many operators work in the manufacturing area?
- How many electricity meters are used in the facility?
- How are different machines connected?
- How do the raw materials move through the facility?
- What measures are taken to sustain the manufacturing process in case of power outages, or emergencies?
- If the taxpayer manufactures different products/materials, how are the manufacturing areas different and/or similar?
- If the audit assignment is a refund verification, what specific equipment/machinery/parts are being requested for refunds/credits?
- Does the taxpayer have plant shutdowns regularly, and what is routinely maintained?
- What types of storage facilities are utilized, and where are they located?

Soon after the plant tour make a detailed description of observations in the audit plan.

Sampling

Sampling can be performed on most taxpayers especially when the records are voluminous. For manufacturing taxpayers special attention should be noted when reviewing sales accounts and selecting accounts of interest for expenses and assets. If manufactured items and non-manufactured items are sold by the taxpayer, consider splitting the revenue streams into separate groups. Assets and expenses should be sampled separately in different groups. If possible sample potential refund accounts separately; utilities should be reviewed in a separate group(s). Also if there is a law change in the audit period it might be necessary to separate the law changes into separate groups.

If the taxpayer presents schedules of refunds, the requested items should be in a separate group if possible.

The sampling manual should be referenced for specific sampling issues.

Refunds

Before audit fieldwork begins research to see if the taxpayer has submitted any refund claims, and the outcomes of each claim. If the taxpayer provides schedules requesting credits on specific invoices during the course of the audit, a separate refund assignment should be generated. However, if, during the normal course of the audit, credit items are discovered, credit can be given in the audit.

The auditor should note if the taxpayer has taken any credits against the sales tax returns, or requested refunds for tax from vendors. If credits have been taken on the return or from the vendors, a detailed listing of such transactions should be reviewed to verify the exempt status of the items. If the invoices or sufficient documentation cannot be provided, the credits should be scheduled as errors in the audit.

For specific refund questions and issues, review the Refund section on the Audit Division's website.

Sales

Reviewing the taxpayer's sales invoices, either by detailing or sampling, is a crucial first step toward determining exactly what types of products or services the taxpayer provides to its customers. These facts will determine the taxability of the taxpayer's purchases. Is the taxpayer only selling items manufactured or assembled (i.e., qualifying for manufacturing exemptions), or is the taxpayer also installing the items it sells (i.e., not qualifying for manufacturing exemptions)?

Assembly Labor vs. Installation Labor

Assembly is the labor to connect component parts into a finished product. Assembly labor is taxable, whether the manufacturer is making his own product or assembling parts that are furnished directly or indirectly by the customer (i.e., third-party assembly). Note that, while charges to assemble a product for a customer are taxable, charges to re-assemble a product after it has been disassembled are not taxable, unless tied to a taxable sale or service (e.g., repair of TPP).

Installation is the labor to place TPP in position, without changing its form, where it will reasonably accomplish the purpose for which it will be utilized. Any charges for installation connected with the sale of TPP are taxable, if the TPP retains its character as TPP as opposed to realty.

- Persons who manufacture and install items that are deemed new construction or residential repair/remodeling are contractors and subject to Rule 3.291.
- Persons who manufacture and install items that are deemed nonresidential real property repair or remodeling are subject to Rule 3.357.
- Persons who manufacture and install items that are deemed a repair of TPP are subject to Rule 3.292.

Note: Third-party installation refers to installation labor performed by an entity that did not sell to the customer the item being installed. However, some third-party installation is taxed as a taxable service. For example, installing a replacement part in a piece of equipment is actually the repair of TPP--a taxable service. Likewise, third-party installation may also be taxable as nonresidential repair or remodeling. The total charge for a taxable service is taxed, even when the charge is "labor only."

Taxable Purchases

Machinery, Equipment, Replacement Parts, and Accessories that are Rented or Leased for a Term of Less than one Year

Items that qualify for exemption by their use are only exempt when rented or leased if the contract period is at least a year. The actual term of the contract rather than the time that the equipment is at a particular location determines whether equipment is exempt or taxable. A daily, weekly, or monthly rental contract is taxable even if the equipment remains at the customer's site for a period in excess of one year.

A contract for the rental of equipment that does not provide for an absolute termination date, but continues indefinitely upon period payments (month-to-month) until cancelled at will by either party upon 30 days notice, does not provide for a definite term with a specified beginning and ending date of one year or more required by Section 151.318(e). Contract provisions that provide for month-to-month rentals and merely set forth damages for a party terminating the contract within the first 12 months are insufficient to meet the definition of a year-long contract period, since the term of the contract is not firmly established.

Verbal contracts will be considered taxable. Verbal contracts are treated as month-to-month rentals if the charges are monthly, day rentals if the charges are daily, etc.

Incidental Items

Items that are incidental to the operation and not otherwise exempted under 151.318 (e.g., office equipment, office supplies, transportation equipment, maintenance supplies and equipment, janitorial supplies or equipment, and equipment or supplies used in sales or distribution activities, research or development of new products, or transportation activities) are taxable.

Hand Tools

Hand tools are any item powered by the hand and not by electricity, gas, steam, or other auxiliary power sources (e.g., disposable squeeze bottles for applying epoxy, gauges, calipers, shop rags, files, screwdrivers).

Intra-Plant Transportation Equipment

Intra-plant transportation equipment is taxable unless it falls into one of the following three categories:

1. piping or conveyor systems that are a component part of a single item of manufacturing equipment or pollution control equipment eligible for the exemption under Tax Code Section 151.318(a)(2), (a)(4), or (a)(5);
2. piping through which the product or an intermediate or preliminary product that will become an ingredient or component part of the product is recycled or circulated in a loop between the single item of manufacturing equipment and the ancillary equipment that supports only that single item of manufacturing equipment if the single item of manufacturing equipment and the ancillary equipment operate together to perform a specific step in the manufacturing process; or

3. piping through which the product or an intermediate or preliminary product that will become an ingredient or component part of the product is recycled back to another single item of manufacturing equipment and its ancillary equipment in the same manufacturing process

Note that either piping **or** a conveyor system is exempt when it is a component of a single item of manufacturing equipment. In contrast, only **piping** that is used for the second and third purposes is exempt (conveyor systems performing the same functions are taxable).

Even if manufacturing activities (cooling, mixing, or pollution containment) occur during the transportation of product or the product's component parts, transportation equipment is still taxable.

Equipment/Supplies for Maintenance/Storage of TPP

Machinery and equipment or supplies used to maintain or store TPP, whether raw materials or the finished product, are taxable.

Items for Transmission/Distribution of Electricity

TPP used in the transmission or distribution of electricity (e.g., transformers, cable, switches, breakers, capacitor banks, regulators, relays, reclosers, fuses, interruptors, reactors, arrestors, resistors, insulators, instrument transformers, and telemetry units) is taxable. Lines, conduit, towers, and poles are also taxable.

Samples

Samples are scale models and are not used to demonstrate the sample itself but rather other items. Since the sample is fabricated for this use and not for sale, the purchase of the raw materials that are used to make the sample is subject to sales or use tax, regardless of the fact that the sample itself may be ultimately sold.

Exempt Purchases

Section 151.318(r) of the Tax Code states that a taxpayer claiming a manufacturing exemption has the burden of proof that the exemption is applicable and that no exclusion under Subsection 151.318(c) applies. Where purchases of TPP or normally taxable services are concerned, the manufacturer MUST in all cases issue a valid exemption certificate to the vendor or service provider to substantiate the exemption.

Ingredient or Component Parts

TPP that will become an ingredient or component part of tangible personal property that is manufactured, processed, or fabricated for ultimate sale is exempt.

TPP Used in Manufacturing AND that Makes a Change to the Product

TPP that is **directly** used or consumed in or during the actual manufacturing is exempt, if the use or consumption of the property is necessary or essential to the manufacturing operation **AND** directly makes or causes a chemical or physical change to the product being manufactured or to any intermediate or preliminary product that will become an ingredient or component part of the product being manufactured. Items that are one or more steps removed from direct use in manufacturing are not exempt.

Services

Services that are performed directly on the product that is being manufactured prior to the product's distribution for sale, and for the purpose of making the product more marketable, are exempt.

Items Used to Power & Support Equipment

Actuators, steam production equipment (including water purification equipment such as de-mineralizers and reverse osmosis units) and its fuel, in-process flow through tanks, cooling towers, generators, heat exchangers, transformers and the switches, breakers, capacitor banks, regulators, relays, reclosers, fuses, interruptors, reactors, arrestors, resistors, insulators, instrument transformers, and telemetry units that are related to the transformers, electronic control room equipment, computerized control units, pumps, compressors, hydraulic units, boilers (including economizers, superheaters, waterwalls, hoppers, feedwater heaters, condensers, pumps, air preheaters, draft fans, pulverizers, primary crushers, secondary crushers, oil or gas burning equipment that is related to the boilers) and related accessories that are used to power, supply, support, or control equipment that qualifies for exemption under Tax Code Section 151.318(a)(2) or (a)(5) or to generate electricity, chilled water, or steam for ultimate sale are exempt.

Electric Generating Facility Transformers and Related Items

Transformers located at an electric generating facility that increase the voltage of electricity generated for ultimate sale, the electrical cable that carries the electricity from the electric generating equipment to the step-up transformers, and the switches, breakers, capacitor banks, regulators, relays, reclosers, fuses, interruptors, reactors, arrestors, resistors, insulators, instrument transformers, telemetry units, and related accessories that are associated with the step-up transformers; and transformers that decrease the voltage of

electricity generated for ultimate sale and the switches, breakers, capacitor banks, regulators, relays, reclosers, fuses, interruptors, reactors, arrestors, resistors, insulators, instrument transformers, telemetry units, and related accessories that are associated with the step-down transformers are exempt.

Pollution Control

TPP that is used or consumed in the actual manufacturing, processing, or fabrication of TPP for ultimate sale, if the use or consumption of the property is necessary and essential to a pollution control process, is exempt.

This exemption applies to equipment that removes pollutants from the by-products or waste resulting from the manufacturing process before discharging the waste into the environment. To qualify for the exemption, the pollution control equipment must be used during the actual processing and not, for example, during preparation for manufacturing or during storage or distribution of the product after it is manufactured.

Equipment Maintenance Items

Lubricants, chemicals, chemical compounds, gases, or liquids that are used or consumed during the actual manufacturing, processing, or fabrication of TPP for ultimate sale are tax exempt if their use or consumption is necessary and essential to prevent the decline, failure, lapse, or deterioration of exempt equipment.

Gases

Gases that are used on the premises of a manufacturing plant to prevent contamination of raw material or product, or to prevent a fire, explosion, or other hazardous or environmentally damaging situation at any stage in the manufacturing process or in loading or storage of the product or raw material on premises are exempt. Non-gaseous items that perform these same functions are taxable.

Quality Control Equipment

TPP that is used or consumed during the actual manufacturing, processing, or fabrication of TPP for ultimate sale is exempt if the use or consumption of the property is necessary and essential to a quality control process that tests TPP that is being manufactured, processed, or fabricated for ultimate sale. Testing of raw materials before manufacturing begins, as well as finished products after manufacturing is completed, does not qualify.

Safety Apparel

Safety apparel or work clothing that is used during the actual manufacturing, processing, or fabrication of TPP for ultimate sale is exempt if (1) the manufacturing process would not be possible without the use of the apparel or clothing (i.e., it is specifically required by a law or regulation) and (2) the apparel or clothing is not resold to the employee. Examples are specialized clothing, safety goggles, gloves, ear plugs, or hairnets that the law requires employees to wear during processing, or static wrist guards that manufacturing personnel wear in a manufacturing process that must be free of static electricity. A regulation that requires employees to wear clean clothing is not sufficient to qualify uniforms for exemption. Items required by OSHA (Occupational Safety and Health Administration) exemption are not always exempt. Items are taxable unless there is a section of the statute that creates the exemption.

TPP for Compliance with Public Health Requirements

TPP that is used or consumed in the actual manufacturing, processing, or fabrication of TPP for ultimate sale is exempt if the use or consumption of the property is necessary and essential to comply with federal, state, or local laws or rules that establish requirements for public health purposes. Items such as fire extinguishers that are required to be on site but are only used for emergency purposes are not considered to be consumed during the manufacturing process.

Water Reduction and Wastewater Control Equipment

Tax Code Section 151.318(a)(11) exempts TPP that is **specifically** installed to:

1. Reduce water use and wastewater flow volumes from the manufacturing, processing, fabrication, or repair operation;
2. Reuse and recycle wastewater streams that are generated within the manufacturing, processing, fabrication, or repair operation; or
3. Treat wastewater from another industrial or municipal source for the purpose of replacing existing freshwater sources in the manufacturing, processing, fabrication, or repair operation

Note: While manufacturers are allowed to claim an exemption for machinery and equipment used to reduce water use and treat wastewater from manufacturing operations, manufacturers must pay tax on pipes/conveyors used to move a raw material/product unless that piping is a component of the machinery and equipment.

Labor for Protection of the Environment or for Energy Conservation

Labor charges for repair, maintenance, remodeling, or restoration services performed on certain TPP are exempt under Tax Code Section 151.338. To qualify for the exemption, the following three requirements must be met: (1) the repair, remodeling, maintenance or restoration must be performed on tangible personal property (not realty), (2) the repair, remodeling, maintenance or restoration in question must be required by a statute, ordinance, order, rule or regulation of any of the entities enumerated in Section 151.338; and (3) the repair, remodeling, maintenance or restoration in question must be for the protection of the environment or for energy conservation.

Display Items

Display items and the raw materials that are used to make display items may be exempt, but only so long as the item is used just to demonstrate itself and the same or similar items prior to its sale to an ultimate consumer. The item may not be used for any purpose other than demonstration or display. Any other use by the manufacturer is taxable as a divergent use.

Certain Piping/Conveyor Systems

Piping and/or conveyor systems used in certain ways are exempt. Refer to the **Intra-Plant Transportation Equipment** section of this manual on P. 12. Piping is generally considered a component part of a single item of manufacturing equipment when the piping is within the individual piece of equipment. However, the fact that pipe is outside the equipment does not automatically exclude it from being considered a component part since this is a question that must be answered based on the facts in each situation.

Natural Gas & Electricity

Natural gas and electricity are exempt when used by a manufacturer to power equipment exempt under Tax Code Section 151.318 or 151.3185. Both are also exempt when used in lighting, cooling, and heating in the manufacturing area during the actual manufacturing or processing of TPP for sale. Refer to Tax Code Section 151.317(a)(2) and (a)(3). Neither exemption, however, applies to the preparation or storage of prepared food.

If a manufacturer has claimed exemption on natural gas or electricity, a predominant usage study generally must be made available to the auditor for review. A predominant usage study is not needed when 100% of the natural gas or electricity provided through a single meter is used in an exempt manner. However, the exemption certificate should state the specific use in that case.

If a study **is** required because taxable and exempt usages are made through a single meter, and if the required study is found to be invalid, the non-taxed billings should be scheduled as well as any amounts refunded to the taxpayer during the audit period by either the utility company or the Comptroller. Even if the refunded amount applies to periods outside of the audit period, the total refunded amount should be scheduled. If the refund is after the audit period, a subsequent audit should be generated.

A study must contain the following essential elements:

- A list of every item that uses electricity separated by exempt items and taxable items;
- A detailed description of what each item does;
- If a piece of equipment has both an exempt and a taxable function and performs these functions at different times, it should be included in both lists with appropriate hours or output listed for each function (NOTE - an item that **simultaneously** performs a taxable function and a function that would have been exempt had the equipment been purchased to be used for that exempt function alone is being used for a dual purpose and should be included in the taxable list only);
- Identification of all heating and air conditioning in terms of type (gas or electric) and size (tons for air conditioning, BTUs for heating);
- Amperage, voltage (or kilowatt rating) and hours of operation for each piece of equipment;
- Any cycling equipment must reflect real “on” hours with a separately stated duty factor. CA variance from 50 percent must be proven out for all cycling equipment and certified by a registered engineer or a person with an engineering degree from an accredited engineering college;
- Hours per day and days per week the location is open to the public;
- Hours the location is occupied by employees prior to opening and after closing to the public;
- Copies of the last twelve months’ electricity bills; and
- Certification of both the engineer and the owner must appear on the face of the study.

Any changes in equipment, business activities, or square footage being served by the utility meter should be taken into account by the study.

The auditor should perform the following steps when verifying a utility study:

- Obtain a depreciation schedule from the taxpayer and cross-reference the listed equipment to equipment on the study and observed during a tour at the taxpayer’s location. Any changes in the depreciation schedule throughout the audit period should be noted.
- Review the study for reasonable hours for each piece of equipment.
- Identify pieces of equipment that may have more than one purpose. For example, if a lathe is used at times to manufacture items for resale but is also used at other times to repair TPP belonging to another, the study should identify the repair hours as taxable use. Likewise, any lighting, heating, or cooling

hours should also be split for taxable and non-taxable use. In other words, if processing is not actually occurring, hours for lighting should not be classified as exempt.

- Verify the amperage and voltage (or kilowatt rating) listed in the study by reviewing the decal or plate typically located on the equipment, reviewing purchase invoices or owner's manuals for the equipment specifications, or searching the Internet for the maker of the equipment that may provide detailed information.

Many times a taxpayer is paying tax at the beginning of an audit period but not at the end of the audit period or vice versa. Without reviewing the actual utility bills, as well as the utility expense accounts for any unusual debit entries for various periods throughout the audit, the auditor will not notice this change.

Software Manufacturing

Software manufacturing is different in some ways from other manufacturing in that it encompasses more activities within the "bookends" of manufacturing and therefore provides additional exemptions. For example, the first production stage for the manufacturing of software is the **design** and writing of the code or program. Also, software manufacturing includes the testing or demonstration of the software.

Tax Code Section 151.318 typically limits exemption to TPP **directly** used in the manufacturing process to make or cause a chemical or physical change in the product being manufactured for sale or in an intermediate or preliminary product that becomes a part of the product manufactured for sale. In contrast, a software manufacturer may purchase, for instance, a production computer and software to use to design the software being manufactured; other manufacturers must pay tax on computers used to design their products.

Wrapping & Packaging

The manufacturing process is complete when the manufacturer has packaged the TPP being produced, as it will be sold. Therefore, manufacturers may purchase tax-free any wrapping and packaging equipment, repair parts and repair labor for qualifying equipment, as well as packaging supplies. Persons performing only wrapping and packaging on behalf of a manufacturer can qualify for exemptions as sub-manufacturers only when the manufacturer buys and supplies the persons with the wrapping and packaging materials. Persons who provide wrapping and packaging services using their own materials are service providers and not sub-manufacturers.

Exempt wrapping, packing, and packaging supplies that are used to further the sale of a manufacturer's product include non-returnable containers, wrapping paper, wrapping twine, bags, boxes, cartons, crates, crating material, pallets, tape, rope, rubber bands, metal bands, labels, tags, staples, glue, mailing tubes, excelsior, straw, cardboard fillers, separators, shredded paper, ice, dry ice, cotton batting, shirt boards, and hay lath.

A combination business that primarily manufactures TPP for sale may also buy for resale TPP that was manufactured by another entity. If the business is primarily a manufacturer, all of their packaging supplies may be purchased tax free. For example, fast food restaurants are considered to be primarily processors of TPP for sale. They may also sell TPP without further processing. They are allowed to buy all of their packaging supplies tax free even though a portion of the supplies are used in packaging or serving a non-processed product. A grocery store purchases TPP for resale, but also processes food products. The meat department, deli, or snack bar, may be processing as well as repackaging food and food products to sell in that department. If the packaging supplies used by the processing departments are clearly distinguishable from those used in non-processing departments, they may be purchased tax free. Note that a person's manufacturing activities must be **above** fifty percent for the person to be considered to be primarily engaged in manufacturing for the purposes of being deemed a combination business.

Molds, Dies, Patterns and Similar Aids

Molds, dies, patterns and similar manufacturing aids--The purchase of molds, dies, patterns, jigs, tooling, photo engraving, and other manufacturing aids, and their raw materials or component parts, **may** qualify for exemption under Tax Code Section 151.318. The information in this section is correct as of October 1, 1997. Prior to 10/01/97, the law was different, and the taxability for that time period is not included in this section.

To qualify for exemption, molds, dies, patterns and similar aids must be used **directly** to make a physical change in the manufactured product. Such items used **indirectly** to manufacture a product, being one or more steps removed from the manufacturing process, do not qualify for exemption. For example, a mold purchased by a manufacturer to make another mold that will then be used to make the manufacturer's product is taxable. The first mold is not used to make a product for sale and so is one step removed from the manufacturing process. In contrast, the materials that will go into the second mold that will be used to make the product for sale are exempt.

Sometimes a manufacturer charges its customer for the items used to make a product. For example, a manufacturer of statues may make a separate charge to its customer to make or acquire the mold that will be used to mold the statue. Whether the price charged for the mold constitutes a sale to the customer, and whether the customer owes tax on the mold, depends upon the circumstances.

Written agreement - sale – A separate charge by the manufacturer for the aid (e.g., mold, die) will be considered a sale to the customer only if a written agreement exists between the parties clearly making the customer the owner of the aid. As owner of the aid, the customer will owe tax on the amount that the manufacturer charged, unless the customer is also manufacturing a product for sale or is reselling the products produced from the mold.

No written agreement - no sale – When no written agreement exists between the manufacturer and the customer, and the manufacturer separates the charge for the aid from the charge for the items produced by means of the aid, a sale will not be considered to have occurred. In other words, the manufacturer will be considered the owner of the aid. The combined charges constitute the sales price of the manufactured item. (Charge for aid plus charge for items produced equals sales price of items.) The total charge shall be taxable or nontaxable depending on the taxability of the items produced.

TPP versus Improvement to Realty

Sale and Installation

When an outside vendor sells and installs qualifying equipment that remains TPP after installation, the manufacturing exemption is applicable for parts and labor regardless of how billed (lump sum or separated).

Repairs and Modifications

When an outside repairperson is repairing, modifying or restoring qualifying equipment classified as TPP, the manufacturing exemption is applicable for parts and labor regardless of how billed (lump sum or separated). However, when a repairperson is repairing, modifying or restoring manufacturing equipment classified as an improvement to realty, the manufacturing exemption is applicable for separated qualifying parts only; the labor is taxable. Thus, the billing becomes an issue.

Most large manufacturing plants maintain an inventory of spare parts/equipment (stores) to eliminate any interruption in the manufacturing process due to repairs of non-functioning equipment. This inventory may consist of newly purchased parts/equipment or repaired parts/equipment. When third-party repairs are performed for qualifying manufacturing equipment that has been incorporated into realty, the manufacturer has two options: (1) the newly-repaired manufacturing equipment may be repaired and reinstalled into realty or (2) placed into inventory. If the manufacturer chooses to reinstall the newly-repaired equipment into realty, the repair parts will be exempt if the repair is completed under a separated contract, but the labor will be taxable, because the equipment, though not currently annexed to the realty, is still considered part of it when repaired to be reinstalled. If the manufacturer chooses to place the repaired equipment into inventory, both the parts and labor to repair the qualifying unit will be exempt since the equipment loses its identity as real property.

Remember two important points:

1. Repair labor by the manufacturer's employees is not taxable.
2. The manufacturer is responsible for documenting whether the repaired equipment was reinstalled into realty or placed into inventory.

Contracts to Improve Realty

A contractor who incorporates into realty any equipment or materials that qualify for exemption may accept an exemption certificate in lieu of tax from the manufacturer for the separately stated exempt materials sold under a separated contract. Taxable materials, such as foundation materials and items that are noted under Rule 3.300(c), must be separately stated from qualifying equipment, or a single charge for qualifying and non-qualifying materials will be presumed taxable. When nonresidential repair, remodeling, or restoration of realty is performed, qualifying equipment should be separately stated from both non-qualifying materials and taxable labor. A lump-sum charge to repair, remodel, or restore nonresidential realty is presumed taxable. The presumption may be overcome by the service provider at the time the transaction occurs by separately stating to the customer a reasonable charge for the taxable services. However, if the charge for the qualifying manufacturing equipment is not separately stated at the time of the transaction, the service provider or the purchaser may later establish for the comptroller, through documentary evidence, the percentage of the total charge that relates to exempt qualifying manufacturing equipment. Examples of acceptable documentation

include purchase invoices, bid sheets, or schedules of values. A lump-sum charge to perform new construction is not taxable. The contractor is the consumer of all the goods that the contractor uses in the performance of a lump-sum new construction contract, and neither the contractor nor the manufacturer may claim an exemption on otherwise qualifying manufacturing equipment. While the presumption of taxability can be overcome on a lump-sum charge to repair, remodel, or restore nonresidential realty, as noted earlier, a lump-sum new construction contract, once performed, is irreversible; that is, the manufacturing exemption will be lost.

As noted, certain equipment qualifies for exemption when purchased or used by a manufacturer. The following chart summarizes the taxability status of such manufacturing equipment based on different billing types:

Type	Parts/Equipment	Labor
Remains TPP-Initial Installation-Lump Sum	Exempt	Exempt
Remains TPP-Initial Installation-Separated	Exempt	Exempt
Remains TPP-Repair-Lump Sum	Exempt	Exempt
Remains TPP-Repair-Separated	Exempt	Exempt
Becomes Improvement to Realty-New Construction-Lump Sum	Tax owed by contractor at time of purchase	Exempt
Becomes Improvement to Realty-New Construction-Separated	Exempt	Exempt
Becomes Improvement to Realty-Repair/Remodel-Lump Sum	Taxable, unless exempt qualifying manufacturing equipment is separately stated or documentary evidence is provided establishing the total charge relating to exempt equipment	Taxable
Becomes Improvement to Realty-Repair/Remodel-Separated	Exempt	Taxable

Divergent and Dual Uses

Certain activities will cause divergent or dual uses of property purchased for otherwise exempt use. Property purchased at the outset for dual use is not exempt.

Divergent Use

Divergent use occurs when a manufacturer stops using equipment for the exempt purpose for which it was purchased and begins to use it in a taxable manner. Divergent use and exempt use cannot occur simultaneously. A common example of divergent use occurs when a taxpayer is both a manufacturer and a contractor and uses the equipment for an exempt purpose to manufacture a product at times, but occasionally uses the equipment in a taxable manner to fulfill a contract to improve realty. When acting as a contractor, tax is due on the divergent use of the equipment. A manufacturer who occasionally repairs or remodels TPP is another example.

As of October 1, 2001, there is no tax on the divergent use of equipment that is four years old or older. The count for four years starts running from the date of purchase. Any taxable use of property that does not exceed 5% of the total use for a month is not subject to tax. The tax is due on the percentage of taxable use in a month times 1/48 of the cost of the property.

Section 151.3181 of the Tax Code specifies the following procedure for calculation of divergent use for a month:

Tax = 1/48 of purchase price X divergent use percentage X tax rate applicable at purchase

Divergent use percentage is measured either in hours or by output. It is calculated in one of two ways:

$$\frac{\text{total divergent use hours of operations in a month}}{\text{total hours of operations of the property during the month}}$$

OR

$$\frac{\text{total output during divergent use in a month}}{\text{total output during the entire month}}$$

A manufacturer who purchases non-capitalized equipment repair parts or consumables for equipment that is routinely used in both exempt and nonexempt manners may elect to pay tax on the repair parts or consumables by applying the divergent use percentage of the equipment as provided by the foregoing divergent use calculations for the month in which the purchase of the repair part or consumable was made.

A manufacturer who purchases repair labor for equipment may owe tax if the qualifying exempt equipment is used in both exempt and nonexempt manners. If the qualifying equipment was being used in an exempt manner at the time the repair was needed, no tax is due for divergent use of the repair. If qualifying equipment was being used in a nonexempt manner at the time the repair was needed, tax is due on the purchase price of the repair. If a manufacturer cannot determine whether the equipment was being used either in an

exempt or nonexempt manner at the time of repair, the manufacturer may pay tax by applying to the purchase price of the repair the divergent use percentage calculated for the month in which the purchase was made.

The use of “pharmaceutical biotechnology cleanrooms and equipment,” as those terms are used in subsection (a)(14) of Rule 3.300, to manufacture, process, or fabricate a pharmaceutical biotechnology product that is **not** sold is not a divergent use if the use occurs during the certification process by the United States Food and Drug Administration.

Dual Use

While divergent use occurs when a manufacturer **stops** using equipment for the exempt purpose for which it was purchased and **begins** using it in a taxable manner, dual use occurs when an item is operated **simultaneously** in a taxable manner and in a manner that would have been exempt had the item been purchased to be used for that purpose alone. For example, a generator may be purchased and used simultaneously to power a piece of equipment that makes a physical change to a product as well as to run the conveyor belt that will carry the product to that piece of equipment. Purchasing a generator to power a conveyor belt used for intraplant transportation is a taxable use. In contrast, purchasing a generator to power the equipment making a physical change to the product would have been exempt. A generator purchased to perform both functions at once is being subjected to dual use.

Therefore, dual use is not divergent use. Divergent use can only occur when an item is used to perform a taxable function at times and an exempt function at other times.

Items purchased for dual use are fully taxable at the time of purchase, or at the time the items are brought into the state if purchased outside Texas, and no exemption may be claimed if the manufacturer later uses the items only for a purpose that would have caused them to be exempt had they originally been purchased for that purpose.

Items purchased for exempt use but **later** employed in a dual use are taxable for the period of dual use in the same manner as they would be for divergent use. A manufacturer may later resume the exempt use, or employ the items in another nonexempt divergent or dual use, and must in the latter case resume accruing tax.

Newspapers/Publications

A person who is engaged in printing or imprinting TPP for sale or production of a publication for the dissemination of news of a general character and of a general interest that is **printed on newsprint** and distributed to the general public daily, weekly, or at some other short interval, free of charge, is considered to be a manufacturer. The person may purchase tax free, in addition to other items that are exempted under Tax Code Section 151.318, the following pre-press machinery, equipment, and supply items that are necessary and essential to and used in connection with the printing process:

- Computers
- Cameras
- Film
- Film developing chemicals
- Veloxes
- Plate-making machinery
- Plate metal
- Litho negatives
- Color separation negatives
- Proofs of color negatives
- Production art work
- Typesetting or composition proofs

Semiconductor Fabrication and Pharmaceutical Biotechnology Clean Rooms and Equipment

Semiconductor fabrication and pharmaceutical biotechnology clean rooms and equipment and associated materials and other items that are necessary and essential to maintain the clean room environment are exempt. Semiconductor fabrication and pharmaceutical biotechnology clean rooms and equipment are not considered intra-plant transportation or used incidentally in a manufacturing process or fabrication operation. Regarding pharmaceutical biotechnology cleanrooms and equipment, the exemption applies only to pharmaceutical biotechnology cleanrooms and equipment that are installed as part of the construction of a new facility on which construction began after July 1, 2003. Clean rooms not used to manufacture semiconductors do **not** qualify for this exemption, e.g., painting clean rooms.

The term “semiconductor fabrication and pharmaceutical biotechnology clean rooms and equipment” includes all TPP, without regard to whether the property is affixed to or incorporated into realty, that is used in connection with the manufacturing, processing, or fabrication in a cleanroom environment of a semiconductor product or a pharmaceutical biotechnology product, without regard to whether the property is actually contained in the cleanroom environment. The term includes integrated systems, fixtures, and piping; moveable cleanroom partitions and cleanroom lighting; all property necessary or adapted to reduce contamination or to control airflow, temperature, humidity, chemical purity, or other environmental conditions or manufacturing tolerances; production equipment and machinery; all TPP that moves the product or other materials that are necessary and essential to the process, including piping that is used to move gas, liquids, deionized water, and hazardous waste material; silicon wafer moving, handling, and tracking systems; and electrical supply and control equipment, such as switches, wiring, and monitoring equipment that is incorporated into the realty. The term does not include the building or any permanent, non-removable structural component part of the building, such as vibration-isolation platforms and vibration columns.

Sub-manufacturers

A sub-manufacturer performs one or more of the manufacturing operations described in the definition of manufacturing upon a product, or upon an intermediate or preliminary product, for a manufacturer. A sub-manufacturer is a manufacturer and is entitled to all manufacturing exemptions.

Restaurants

While food processors are not allowed to claim gas and electricity exemptions per Tax Code 151.317(a)(2), they are considered manufacturers for claiming exemptions from sales and use taxes on certain qualifying equipment. Generally speaking, qualifying equipment includes equipment used to cook, mix, chop, brew, or blend food or beverages for sale. In addition, food processors may claim an exemption for certain items: (1) those used in a quality control process, (2) those required by law or regulation for public health, and (3) certain work clothing and safety apparel.

TPP Used in Manufacturing AND that Makes a Change to the Product

There is an exemption for items that are necessary and essential to the food processing operation AND make or cause a chemical or physical change in the food items being sold or a chemical or physical change in an intermediate ingredient to the food product that will be sold. The exemption includes all component parts, accessories, repair parts, and repair or assembly labor of the qualifying equipment. The foregoing principles concerning realty versus TPP apply.

Quality Control

There is an exemption for TPP used or consumed in the actual processing of food items that will be sold provided the use of the item is necessary and essential to a quality control process. Use of the quality control devices before or after processing or while the finished product is being stored prior to sale constitutes taxable divergent use.

Safety Apparel

There is an exemption for safety apparel and work clothing that are necessary and essential to a food processing operation if purchased by a food processor. Work clothing and safety apparel used during the actual food processing operation are exempt if the items are not resold by the food processor to employees, and if the food processing operation would not be possible (i.e., required by law or regulatory authority) without use of the safety apparel or work clothing. The exemption applies only to the safety apparel and work clothing worn by persons involved in the food processing operation. Tax is due on safety apparel or work clothing worn by non-processing personnel, such as the servers and bus help. A regulation that requires employees to wear clean clothing is not sufficient to qualify uniforms for exemption. To clarify, food processors may claim an exemption from Texas sales and use tax when purchasing aprons, gloves, overalls/coveralls, shoe covers, sleeves and smocks, if the following conditions are met:

1. The garments are specifically designed and marketed for, and suitable to, use in food processing operations in a manner that protects against the contamination of food, food-contact surfaces, or food-packaging materials;
2. The garments are specifically identified as required protective clothing in the plant's Sanitation Standard Operating Procedures (SSOP) or federal, state, or local laws or rules;
3. The clothing otherwise meets the requirements in Tax Code Section 151.318(a)(9); and
4. The food processor has obtained confirmation or approval from the Comptroller's office that the clothing items purchased meet these criteria.

TPP for Compliance with Public Health Requirements

There is an exemption for items that are used in the food processing operation if the items are necessary and essential to comply with federal, state, or local laws or rules that establish requirements related to public health. For example, disinfectants used to sanitize product contact surfaces are exempt. In contrast, tax is due on cleaning agents if used on non-processing equipment.

Each item should be reviewed carefully to verify how it is actually being used. If the item will be used sometimes for processing and at other times for non-processing activities, tax will be due for the period of non-processing use (i.e., divergent use). For additional information and examples of taxable and non-taxable items see the [Restaurant Publication 94-117](#).

Overhaul, Retrofit, or Repair of Jet Turbine Engines

A person engaged in overhauling, retrofitting, or repairing jet turbine aircraft engines and their component parts is entitled to an exemption for the purchase of machinery, equipment, or replacement parts or accessories with a useful life in excess of six months, or supplies, including aluminum oxide, nitric acid, and sodium cyanide, used in electrochemical plating or a similar process that are used or consumed in the overhaul, retrofit, or repair.

Definitions

Accessory

A machine fixture that causes the machinery to operate in a specialized way.

Custom manufacturing

Producing tangible personal property to the special order of the customer, e.g., tailor-made clothing, custom-made draperies or slip-covers, or furniture made-to-order. Custom manufacturers are considered to be manufacturers.

Display item

A manufactured item that is identical in size and function to other items held for sale which it represents and that is ultimately sold at retail. For example, manufacturer's apparel lines, furniture showroom pieces, light fixture displays.

Equipment

Any apparatus, work clothing, device, or simple machines used directly in production.

Fabrication

To make, build, create, produce, or assemble components of tangible personal property, or to make tangible personal property work in a new or different manner.

Hand tool

An instrument that is to be used, managed, and powered by the hand (e.g., paint brush, trowel, hammer, screwdriver, files). Equipment that is controlled or operated by the hand, but is moved or powered by electricity, gas, steam, or other fuel, is not a hand tool (e.g., electric drill, chain saw, jack hammer).

Machinery

All power-operated machines.

Manufacturer

A person who is engaged in manufacturing. The definition includes processors, fabricators, sub-manufacturers, and custom manufacturers.

Manufacturing

Each operation beginning with the first stage in the production of tangible personal property and ending with the completion of tangible personal property. The first production stage means the first act of production, and it shall not include those acts in preparation for production. For example, a lumber company that cuts trees or a manufacturer that gathers, arranges, or sorts raw materials or inventory is preparing for production. The first production stage for the manufacturing of software is the design and writing of the code or program, and manufacturing includes the testing or demonstration of the software. Manufacturing includes the repair or rebuilding of tangible personal property that the manufacturer owns for the purpose of being sold, but does not include the repair or rebuilding of property that belongs to another.

- Completion of production means the tangible personal property has all the physical properties, including packaging, if any, that it has when transferred by the manufacturer to another. For example, a manufacturer of raw rubber has completed production when the raw rubber is ready to be transferred to a manufacturer of rubber goods.
- Processing and fabrication are two activities that are performed during manufacturing. For example, the person who takes raw steel and makes pipe is engaged in fabrication. The workers who coat or thread the pipe are engaged in processing.

Processing

The physical application of the materials and labor necessary to modify or to change the characteristics of tangible personal property. The repair of tangible personal property, belonging to another, by restoring it to its original condition is not considered processing of that property. The mere packing, unpacking, or shelving of a product to be sold will not be considered to be processing of that property. Processing does not include remodeling.

Remodeling

To make tangible personal property belonging to another over again, in a similar but different way, or to change the style, shape, or form, without causing a loss of its identity, or without causing the property to work in a new or different manner.

Replacement part

Any repair part attached to the machinery, equipment, or accessory.

Sample

A scale model or representative piece of a manufactured product held for sale. For example, cloth swatches and wallpaper books.

Semiconductor fabrication and pharmaceutical biotechnology clean rooms and equipment

All tangible personal property, without regard to whether the property is affixed to or incorporated into realty, that is used in connection with the manufacturing, processing, or fabrication in a clean room environment of a semiconductor product or a pharmaceutical biotechnology product, without regard to whether the property is actually contained in the clean room environment. The term includes integrated systems, fixtures, and piping; moveable clean room partitions and clean room lighting; all property necessary or adapted to reduce contamination or to control airflow, temperature, humidity, chemical purity, or other environmental conditions or manufacturing tolerances; production equipment and machinery; all tangible personal property that moves the product or other materials that are necessary and essential to the process, including piping that is used to move gas, liquids, de-ionized water, and hazardous waste material; silicon wafer moving, handling, and tracking systems; and electrical supply and control equipment, such as switches, wiring, and monitoring equipment that is incorporated into the realty. The term does not include the building or any permanent, non-removable structural component part of the building, such as vibration-isolation platforms and vibration columns.

Sub-manufacturer

A person who performs one or more of the manufacturing operations described in the definition of manufacturing upon a product, or upon an intermediate or preliminary product, for a manufacturer.