

**Michigan Department of Treasury  
Tax Compliance Bureau  
Audit Division**



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**Industrial Processing  
Manual**

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**March 2019**

# **Disclosure**

This manual is not intended as a statement of law, Department policy, or of the Treasurer's official position. The information contained in this manual has been prepared as instructional text. The purpose of this manual is to explain key provisions of the General Sales Tax Act (GSTA) and Use Tax Act (UTA).

Any references in this manual to Rules, Revenue Administrative Bulletins (RABs), Internal Policy Directives (IPDs) and Letter Rulings (LR) are based on the most recent versions available as of the date of this edition. The materials will be reviewed regularly and revised as needed. Where changes in the law supersede and conflict with anything in this document then the new law shall control.

## Table of Contents

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Chapter 1 – Introduction and Overview .....	7
Chapter 2 – Activities of Processors that May Not Qualify for Exemption .....	13
Chapter 3 – Industrial Processing Beginning and End .....	15
Chapter 4 – Cement Trucks .....	16
Chapter 5 – Computer Software Manufacturing .....	17
Chapter 6 – Computer Studies .....	18
Taxability Chart - Computer Functions for Industrial Processors .....	20
Chapter 7 – Computers Used in Industrial Processing by Servicers .....	23
Chapter 8 – Delivery – Just in Time .....	25
Chapter 9 – Direct Pay .....	28
Chapter 10 – Electrical Distribution Systems Apportionment of the Industrial Processing Exemption for Electric Delivery .....	31
Chapter 11 – Grain Elevators .....	37
Chapter 12 – Inventory Withdrawals/Consumed Goods .....	38
Michigan Withdrawals .....	38
Non-Michigan Withdrawals .....	39
Chapter 13 – Material Handling .....	42

---

Chapter 14 – Miscellaneous.....	45
Chapter 15 – Packaging Tools and Equipment.....	47
Chapter 16 – Packaging Function.....	49
Chapter 17 – Packaging Materials.....	50
Dunnage.....	50
Chapter 18 – Percentage Application.....	52
Chapter 19 – Policy (Or Goodwill) Adjustment.....	53
Taxability of Parts Replaced Under Policy (or Goodwill) Adjustment.....	53
Chapter 20 – Printers.....	54
Printing Service.....	54
Chapter 21 – Prototypes.....	55
Chapter 22 – Quality Control / Research or Experimental / Engineering.....	56
Research or Experimental.....	56
Quality Control.....	57
Engineering.....	57
Chapter 23 – Real vs. Personal Property.....	58
Annexation to Realty, either Actual or Constructive.....	58
Adaptation or Application to the Use or Purpose of the Real Estate.....	59
Intention to make the Article a Permanent Accession to the Real Estate.....	59
Manufacturer/Contractor.....	59
Taxability Chart – Real vs. Personal Property Tax Status for Industrial Processors..	60

Chapter 24 – Reconditioning / Remanufacturing.....	68
Chapter 25 – Refrigeration & Freezers.....	69
Chapter 26 – Repackaging.....	70
Chapter 27 – Retail Preparation of Food.....	71
Chapter 28 – Retailers and the Industrial Processing Exemption .....	72
Chapter 29 – Scrap Dealers & Recyclers.....	74
Roll-offs (Dumpsters).....	74
Hoppers .....	74
Freon Recovery Machines.....	74
Loading and Unloading Equipment.....	75
Sorting Equipment Such as Cranes, Loaders, and Lift Trucks .....	75
Equipment Used to Cut, Break, and Crush (After Disassembly).....	75
Paper Shredding Equipment.....	75
Banding and Baling Equipment .....	75
Chapter 30 – Servicers.....	76
Chapter 31 –Storage Tanks and Mixing Tanks .....	77
Gas Cylinders .....	77
Chapter 32 – Stores Accounts (Non-Production Inventory).....	78
Taxability of Items – When Used in Exempt Production Areas – No Shipping, Receiving, etc. ....	79
Chapter 33 – Taxidermists .....	84

---

Chapter 34 – Utilities .....	85
Heating and Cooling .....	85
Idle Time .....	85
Taxability of Areas for Utility Studies .....	88

---

Chapter 35 – Waste Removal / Pollution Control Facilities .....	89
Piping of Waste to another Location .....	89
Air and Water Pollution Controls.....	91
Environmental Clean Up .....	92

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Index of References .....	93
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## Chapter 1 – Introduction and Overview

The State of Michigan allows an industrial processing (IP) exemption from sales and use tax. The industrial processing exemption is limited to specific property and activities.

The GSTA and UTA generally define **industrial processing** as “the activity of converting or conditioning tangible personal property by changing the form, composition, quality, combination, or character of the property for ultimate sale at retail or for use in the manufacturing of a product to be ultimately sold at retail. Industrial processing begins when tangible personal property begins movement from raw materials storage to begin industrial processing and ends when finished goods first come to rest in finished goods inventory storage.” Under the UTA, “industrial processing” also includes the activity of converting or conditioning tangible personal property by changing the form, composition, quality, combination, or character of property that is ultimately “affixed to and made a structural part of real estate located in another state.”

The GSTA and UTA generally define an **industrial processor** as “a person who performs the activity of converting or conditioning tangible personal property for ultimate sale at retail or use in the manufacturing of a product to be ultimately sold at retail.” Under the UTA, an “industrial processor” also includes a person who performs the activity of converting or conditioning tangible personal property that will ultimately be “affixed to and made a structural part of real estate located in another state.”

Additionally, the Department’s sales/use tax rule explains that “the consumption or use of the tangible personal property rather than the kind or character of the property sold is the determining factor as to whether or not such a sale is taxable.” Moreover, to determine whether the IP exemption applies, it is necessary to consider the activity in which the equipment is engaged and not the character of the equipment-owner’s business.

The exemption applies to sales to:

- An industrial processor for use or consumption in industrial processing.
- A person, even if the person is not an industrial processor, if the tangible personal property is intended for ultimate use in and is used in industrial processing.

### **Example 1:**

Parent Corp. is a California-based distributor of automobiles. It does no actual manufacturing itself as all production is farmed out to Subsidiary Corp., a wholly owned subsidiary located in Detroit, Michigan. Parent Corp. has purchased dies for \$10,000,000 that will be used by Subsidiary Corp. in the actual manufacturing

of automobiles. Is Parent Corp. liable for sales or use tax on the purchase of the dies delivered to it in Michigan?

Answer:

No. The dies are exempt because they are used by an industrial processor (Subsidiary Corp.) in an industrial processing activity.

- A person, even if the person is not an industrial processor, if the tangible personal property is used by that person to perform an industrial processing activity for or on behalf of an industrial processor.
- A person, even if the person is not an industrial processor, if the tangible personal property is one of the following:
  - A computer used in operating industrial processing equipment.
  - Equipment used in a computer assisted manufacturing system.
  - Equipment used in a computer assisted design or engineering system integral to an industrial process.
  - A subunit or electronic assembly comprising a component in a computer integrated industrial processing system.
  - Computer equipment used in connection with the computer assisted production, storage, and transmission of data if the equipment would have been exempt had the data transfer been made using tapes, disks, CD-ROMs, or similar media by a company whose business includes publishing doctoral dissertations and information archiving, and that sells the majority of the company's products to nonprofit organizations exempt under section 4q of the GSTA or section 4(1)(w) of the UTA.
  - Equipment used in the production of prewritten computer software or software modified or adapted to the user's needs or equipment by the seller (if the software is available for sale from a seller of software on an as-is basis or as an end product without modification or adaption).

Common and statutory meaning of certain industrial processing terms:

- **Convert or Condition:** To change the form, composition, quality, combination, or character of property
- **Quality:** The essential character of something



- **Combination:** Something resulting from the combining of two or more things
- **Form:** The contour and structure of something as distinguished from its substance
- **Composition:** A putting together of parts or elements to form a whole; a combining; the manner in which such parts are combined or related; constitution or make-up; the result or product of composing or mixture; compound
- **Character:** The combination of qualities or features that distinguishes one thing from another
- **Product:** As used in the context of **research or experimental activity**, means prototype, pilot model, process, formula, invention, technique, patent, or similar property, whether intended to be used in a business or to be sold, transferred, leased or licensed
- **Remanufacturing:** The activity of overhauling, retrofitting, fabricating, or repairing a product or its component parts for ultimate sale at retail
- **Research or experimental activity:** Activity incident to the development, discovery, or modification of a product or a product related process. Research or experimental activity also includes activity necessary for a product to satisfy a government standard or to receive government approval. Research or experimental activity does **not** include the following:
  - Ordinary testing or inspection of materials or products for quality control purposes.
  - Efficiency surveys.
  - Management surveys.
  - Market or consumer surveys.
  - Advertising or promotions.
  - Research in connection with literacy, historical, or similar projects.

Industrial processing includes the following activities:

- Production or assembly
- Remanufacturing

- Recycling of used material for ultimate sale at retail
- Research or experimental activities
- Engineering related to industrial processing
- Inspection, quality control or testing to determine whether the materials, products or processes conform to specified parameters at any time before the materials or products first come to rest in finished goods inventory storage
- Planning, scheduling, supervision or control of production or other exempt activities
- Design, construction, or maintenance of production or other exempt machinery, equipment and tooling
- Processing of production scrap and waste up to the point it is stored for removal from the plant of origin
- Production material handling
- Storage of in-process materials

**Note:** If an industrial processing activity is not occurring under [either MCL 205.54t\(7\)\(a\)/MCL 205.94o\(7\)\(a\) or MCL 205.54t\(3\)/MCL 205.94o\(3\)](#), the taxpayer is not entitled to the exemption. If, however, an industrial processing activity is occurring, then the remaining provisions of [MCL 205.54t/MCL 205.94o](#) must be analyzed to determine the measure of the exemption.

Property that qualifies for the industrial processing exemption includes:

- Property that becomes an ingredient or component part of the finished product that is ultimately sold at retail or affixed to real estate located in another state
- Machinery, equipment, tools, dies, patterns, foundations for machinery or equipment (e.g., foundations for electricity transmission towers), or other processing equipment used in an industrial processing activity and in their repair and maintenance
- Property that is consumed, destroyed or loses its identity in an industrial processing activity
- Tangible personal property, not permanently affixed and not becoming a structural part of realty that becomes a part of, or is used and consumed in

installation and maintenance of systems used for an industrial processing activity

- Fuel or energy used or consumed for an industrial process
- Machinery, equipment and materials used within a plant site or between plant sites of the same person for movement of tangible personal property in the process of production This includes front end loaders, forklifts, pallet jacks, skidsteers, multipurpose loaders, knuckle-boom log loaders, tractors, and log loaders used to unload logs from trucks at a saw mill site for the purpose of processing at the site and to load lumber onto trucks at a saw mill site for purposes of transportation from the site
- Office equipment or data processing equipment used for industrial processing activities
- Tangible personal property used or consumed in an industrial processing activity to produce alcoholic beverages that are sold at retail by the industrial processor through its own retail locations
- Vehicles bearing a manufacturer's plate or vehicles specifically designed, together with parts, used to mix and agitate materials at a plant or job site in the concrete manufacturing process

The following activities are **not exempt**:

- Purchasing, receiving or storage of raw materials
- Sales, distribution, warehousing, shipping, or advertising activities
- Administrative, accounting, or personnel services
- Design, engineering, construction or maintenance of real property and non-processing equipment
- Plant security, fire prevention, medical or hospital services

The following types of property **do not qualify** for the industrial processing exemption:

- Tangible personal property permanently affixed and becoming a structural part of real estate including building utility systems (heating, air conditioning, ventilating, plumbing, lighting, and electrical distribution) to the point of the last transformer, switch, valve, or other device at which point usable power, water, gas, steam, or air is diverted from distribution circuits for use in industrial processing.

**Note:** Foundations for machinery or equipment used in industrial processing are exempt regardless whether the foundation would otherwise be considered affixed to real estate.

**Note:** Under the UTA, the above disqualification does **not** apply to property permanently affixed and becoming a structural part of real estate located in **another** state.

- Office equipment, including data processing equipment not used for industrial processing purposes.
- All office furniture or office supplies, regardless of use.
- Inventory (an industrial processor's own product or finished good) withdrawals that the industrial processor uses or consumes for purposes **other than** industrial processing.
- Tangible personal property used for receiving and storage of either (i) materials, supplies, parts, or components purchased by the user or consumer, or (ii) natural resources extracted by the user or consumer.
- Vehicles, including special bodies or attachments, required to display a vehicle permit or license plate to operate on public highways (except for vehicles bearing a manufacturer's plate or vehicles specially designed for and used in the concrete manufacturing process to mix and agitate materials at a plant or jobsite).
- Tangible personal property used for the preparation of food or beverages by a retailer for ultimate sale at retail through its own locations (except for tangible personal property used or consumed in an industrial processing activity to produce alcoholic beverages that are sold at retail by that industrial processor through its own retail locations).
- Tangible personal property used for the preservation or maintenance of a finished good once it first comes to rest in finished goods storage.
- Returnable shipping containers or materials, except those used within a plant site or between plant sites operated by the same entity for movement of in-process materials.
- Tangible personal property used in the production of custom software originally designed for the exclusive use and special needs of the purchaser.

References pertaining to this information can be found in the index under [Chapter 1](#)

## **Chapter 2 – Activities of Processors that May Not Qualify for Exemption**

A person may be engaged in non-industrial processing activities in addition to its industrial processing activities. Many services, such as engineering, inspection, design, planning, scheduling, material handling, and research, constitute industrial processing. However, if those same services are sold or used separately from the industrial processing activity that portion of the service is subject to tax.

The taxability of selected activities is listed below.

Table 1.

<b>No.</b>	<b>Activity</b>	<b>Taxability</b>
<b>1</b>	A printer prints on stock furnished by the customer. See the “Printers” section of this text for exceptions	Taxable
<b>2</b>	A printer binds books furnished by another printer. See the “Printers” section of this text for exceptions	Exempt
<b>3</b>	A printer binds books furnished by a non-processor. See the “Printers” section of this text for exceptions	Taxable
<b>4</b>	Photographs are returned to a photographer to color or tint the photographs and the coloring or tinting is included in a quoted price.	Taxable
<b>5</b>	A sign manufacturer paints signs owned by an advertising agency	Taxable
<b>6</b>	A tire company purchases old tires and retreads them for sale to others. See the “Reconditioning/ Remanufacturing” section of this text	Exempt
<b>7</b>	A tire company retreads or vulcanizes tires supplied by a trucking company	Taxable (materials sold only, labor charges billed separately are not taxable)
<b>8</b>	A pallet manufacturer repairs pallet owned by a soap manufacturer that used the pallets in their in-process storage area	Exempt
<b>9</b>	A heat-treat company hardens steel to be used by an automobile manufacturer as parts for an automobile	Exempt
<b>10</b>	A heat-treat company heat-treats dies owned by an automobile manufacturer that are used in an industrial processing activity	Exempt

No.	Activity	Taxability
11	<p>A gravel mining and crushing operation has portable equipment that crushes and refines product under four scenarios:</p> <ul style="list-style-type: none"> <li>• For other mining operations</li> <li>• At its own pits (for resale)</li> <li>• For contractors (not for resale)</li> <li>• For county road commissions (not for resale)</li> </ul>	<p>Exempt Exempt Taxable Taxable</p>
12	<p>A company manufactures spiral stairways and handrails. The stairways, etc. are custom made to specific customer requirements and affixed to realty. The company does not maintain an inventory or price list or make sales at retail.</p>	<p>Taxable (if affixed to real estate in Michigan, exempt if affixed in another state)</p>
13	<p>A company manufactures spiral stairways and handrails. The stairways, etc. are custom made to specific customer requirements and sold at retail.</p>	<p>Exempt</p>
14	<p>A conveyor manufacturer has employees fabricate, assemble and install the conveyor parts at the customer's (an industrial processor's) plant for use in industrial processing</p>	<p>Exempt</p>
15	<p>A window manufacturer maintains a price list. The manufacturer used tools at the job site to install the windows.</p>	<p>Taxable</p>

References pertaining to this information can be found in the index under [Chapter 2](#)

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### **Chapter 3 – Industrial Processing Beginning and End**

For determining where the industrial processing exemption begins and ends, we need to look at the statute, supporting rules and binding case law.

Both the GSTA and UTA provide that “industrial processing begins when tangible personal property begins movement from raw materials storage to begin industrial processing and ends when finished goods first come to rest in finished goods inventory.”

In general, once tangible personal property begins movement from raw materials storage to begin industrial processing, a qualifying activity will be eligible for the exemption. Any property used to receive or store raw materials is subject to sales or use tax. Likewise, any property used to move materials after they have come to rest in finished goods inventory is taxable. The movement of raw material from raw materials inventory is exempt whether it goes directly to the production machinery or to a staging area near the production process. The movement of the material is exempt if the production process drives the movement of the material from raw materials storage.

**Note:** According to a 2018 published decision of the Court of Appeals in *Tomra of N America v Dep’t of Treasury*, this statutory language does **not** restrict the possibility that industrial processing could occur without the step of moving raw materials from storage or when tangible personal property is never in raw materials storage. Except as otherwise noted, the Department believes that this aspect of the *Tomra* decision departs from precedent as it directly conflicts with the Michigan Supreme Court’s 2015 decision in *Detroit Edison Co v Dep’t of Treasury*.<sup>1</sup> To the extent that there is a conflict between these two decisions, that conflict has yet to be resolved by the courts.

The exemption ends when the manufactured goods come to rest in finished goods inventory. The movement to or from boxing, bagging, shrink-wrapping or other packaging operations is exempt if it is done **before** the finished goods come to rest in finished goods inventory.

References pertaining to this information can be found in the index under [Chapter 3](#)

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<sup>1</sup> Accordingly, the Department has filed an application for leave to appeal with the Michigan Supreme Court to challenge this (and other aspects) of the Michigan Court of Appeals’ *Tomra* decision.

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## **Chapter 4 – Cement Trucks**

A specially designed vehicle used to mix cement and agitate materials is eligible for an industrial processing exemption. The material may be added at a plant or job site. The truck, tires and repair parts attached to the cement delivery truck body or to the mixer are exempt. This exemption is available only for a concrete manufacturer. Consumable supplies such as gasoline, oil, antifreeze, windshield washer solvent, transmission fluid, brake fluid, etc. are subject to tax.

**Note: Global Positioning Systems (GPS) and after-market communication equipment are subject to tax.**

**Note: Boom trucks, conveyors, gravel trains and trailers, and other types of apparatus at the job site owned by a separate company or contractor that do not mix or agitate the product are subject to tax.**

If a concrete manufacturer does not make retail sales but instead consumes all the concrete on its own jobs, it would not be entitled to an exemption for its cement trucks, equipment or supplies. If the concrete manufacturer makes retail sales in addition to consuming concrete on its own jobs, the exemption should be apportioned.

**Note: Tires and repair parts used on gravel trains, trailers, etc. are not eligible for the industrial processing exemption. A repair facility usually does work on cement trucks, loaders, highway tractors and trailers. Invoices must show that repair parts were attached to a cement mixer or truck.**

References pertaining to this information can be found in the index under [Chapter 4](#)



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## **Chapter 5 – Computer Software Manufacturing**

The classification of computer software as “prewritten” or “custom” determines whether the act of producing the software qualifies as industrial processing.

Definitions:

- 1. Computer software** means a set of coded instructions designed to cause a computer or automatic data processing equipment to perform a task
- 2. Prewritten computer software** means computer software, including prewritten upgrades, that is delivered by any means and that is not designed and developed by the author or other creator to the specifications of a specific purchaser [e.g. custom software]
- 3. Custom Software** is designed for the exclusive use and special needs of a customer

**Prewritten Computer Software:** Equipment, supplies, utilities, etc. used to produce prewritten computer software are eligible for the industrial processing exemption.

Equipment, supplies, utilities, etc. used to modify prewritten computer software, whether separately itemized for sales tax purposes or not, are also eligible for the industrial processing exemption.

An industrial processor cannot claim the exemption for equipment used to modify a prewritten accounting software package for its own use because the software will not be used in industrial processing and there is no ultimate sale at retail. However, equipment used in the production of prewritten computer software that is available for ultimate sale at retail on an as-is basis without modification or adaptation qualifies for the industrial processing exemption.

**Custom Software:** The sale of custom software is a tax-exempt retail sale, but the equipment, supplies, and utilities used are not eligible for the industrial processing exemption.

References pertaining to this information can be found in the index under [Chapter 5](#)

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## **Chapter 6 – Computer Studies**

Computers purchased or leased by industrial processors can be used in both taxable and exempt functions. The property is exempt only to the extent that it is used for the purpose stated in the applicable sales or use tax act. The exemption is limited to the percentage of exempt use to total use determined by a reasonable formula or method approved by the Department.

Computers and equipment used in CAD/CAM may not be used only to design or develop products and parts. Care should be taken when reviewing both servicers and industrial processors to determine if the equipment is used in a taxable function.

### **Example 1:**

A computer program used to design real property floor plans is taxable, but the same computer program used to design a floor plan for an industrial processor's exempt machinery is exempt.

### **Example 2:**

A computer program used in a post-production function is not exempt. A post production function is any function performed after the product first comes to rest in finished goods inventory storage.

Prewritten computer software may be taxable at a different percentage than the computer equipment it is used on. If the usage of the software can be specifically identified, tax should be applied on that basis. Otherwise, perform a computer study. It does not matter if the software is purchased, leased, or downloaded.

Computers or computer servers located in Michigan that perform industrial processing functions for both in-state and out-of-state manufacturing divisions are exempt to the extent used in performing industrial processing functions.

Computer cables, servers, printers and monitors used in inter-plant or intra-plant transmissions by the same person are taxed on the determined computer equipment percentages, not as communication devices. Routers, and network hookups, etc. are not just communications devices and thus would not always be 100% taxable. A separate study for routers, switches, and network hookups should be performed if the amounts are material.

In general, the following functions would be considered **taxable**:

- Billing
- Order entry
- Communication including plant to plant (by the same person), plant to customer; plant to vendor, EDI, e-mail, etc.
- Payroll
- Accounting
- Sales/Marketing
- Shipping
- Raw material receiving and finished goods inventory control

The following computer activities would generally be considered **exempt**:

- Order summary by product (for production scheduling)
- Production control forecasting
- In-process product testing
- Product design
- Production machinery operation

## **Taxability Chart - Computer Functions for Industrial Processors**

Table 2.

<b>No.</b>	<b>Description of Function</b>	<b>Tax Status</b>	<b>Reason</b>
<b>1</b>	Accounts payable	Taxable	Accounting
<b>2</b>	Capital asset system	Taxable	Accounting
<b>3</b>	Computers used to operate exempt machines	Exempt	Machinery used in IP
<b>4</b>	Computers used to operate taxable machines	Taxable	Operates taxable equipment
<b>5</b>	Daily production report for production scheduling	Exempt	Production scheduling
<b>6</b>	Daily production report for raw material ordering	Taxable	Purchasing
<b>7</b>	Daily production report used for cost accounting	Taxable	Accounting
<b>8</b>	Defective work-in-process inventory exception report used to improve process	Exempt	Quality control
<b>9</b>	Design of manufacturing machine layout	Exempt	Production control
<b>10</b>	Design of real property floor plan	Taxable	Administrative
<b>11</b>	Direct computer ordering from mfg. to supplier (EDI ordering)	Taxable	Purchasing
<b>12</b>	Direct labor variance report	Taxable	Accounting
<b>13</b>	EDAP auditing	Taxable	Accounting
<b>14</b>	Financial analysis & forecasting	Taxable	Accounting
<b>15</b>	General ledger	Taxable	Accounting
<b>16</b>	In-state production scheduling for outstate division	Exempt	Production scheduling
<b>17</b>	Inventory exception report for defective raw material used to adjust payment to vendor (if necessary)	Taxable	Administrative
<b>18</b>	Inventory management for finished goods	Taxable	Accounting/ admin.
<b>19</b>	Inventory management for raw material	Taxable	Receiving
<b>20</b>	Inventory management for work in process for cost accounting	Taxable	Accounting
<b>21</b>	Inventory management for work in process for production scheduling	Exempt	Production scheduling

No.	Description of Function	Tax Status	Reason
22	Labels directly placed on the final product or product container before it is placed in finished goods inventory (bar code labels, UPC labels, mailing/shipping labels, advertising labels)	Exempt	Resale
23	Order report printed by product and customer for production scheduling	Exempt	Production scheduling
24	Personnel/admin/payroll	Taxable	Accounting/admin.
25	Printed materials-bills of lading, packing slips, product surveys, advertising brochures, product catalogs, etc.	Taxable	Administrative/ shipping
26	Forecast of orders by product for production scheduling	Exempt	Production scheduling
27	Forecast of potential sales by product	Taxable	Sales
28	Production personnel scheduling-overtime for non-production activities	Taxable	Administrative
29	Production personnel scheduling-overtime -to track overtime hours	Taxable	Administrative
30	Production personnel scheduling-overtime- -to determine manpower requirements for continued production	Exempt	Production scheduling
31	Production personnel scheduling-vacation to track overtime hours	Taxable	Administrative
32	Production personnel scheduling-vacation- -to determine manpower requirements for continued production	Exempt	Production scheduling
33	Production report detailing causes of work stoppages used to improve the production process	Exempt	Production scheduling
34	Production report detailing frequency of defective in-process material used to improve production process	Exempt	Production scheduling/ quality control
35	Production scheduling	Exempt	Prod. Scheduling
36	Purchase order entry	Taxable	Purchasing
37	Purchasing	Taxable	Purchasing
38	Quality control inspection report of raw materials	Taxable	Administrative
39	Quality control of in-process material	Exempt	Inspection/ quality control
40	Raw material usage report	Taxable	Purchasing

No.	Description of Function	Tax Status	Reason
41	Raw materials report used to determine amount to pay vendor or to decide to keep or replace vendor	Taxable	Accounting
42	Rescheduling ongoing production to accommodate installation of production equipment	Exempt	Production scheduling
43	Safety manual	Taxable	Safety and training
44	Sales analysis	Taxable	Sales
45	Sales history report	Taxable	Sales
46	Sales invoice generation	Taxable	Accounting
47	Sales order entry	Taxable	Sales
48	Sales report printed by product & customer	Taxable	Accounting/ sales
49	Scheduling of employees involved in installation of production equipment (not to be misinterpreted as production scheduling)	Taxable	Administrative
50	Scheduling of production machine maintenance or repair	Exempt	Processing machine maintenance
51	Scheduling removal of existing production equipment	Taxable	Production ceased
52	Scrap report	Taxable	Cost accounting
53	Summary of completed orders by product	Taxable	Sales
54	Summary of pending orders for production scheduling	Exempt	Production scheduling
55	Warranty information & administration	Taxable	Administrative

References pertaining to this information can be found in the index under [Chapter 6](#)

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## **Chapter 7 – Computers Used in Industrial Processing by Servicers**

A servicer is a person who is regularly and exclusively engaged in the business of repairing, improving, or altering tangible personal property owned by others when the value of the material used is incidental or negligible. Sales of equipment, materials, and supplies to such persons are generally taxable unless the servicer is performing industrial processing services.

Both the GSTA and UTA grant the exemption to servicers who purchase or lease:

1. Computers used in operating industrial processing equipment.
2. Equipment used in a computer assisted manufacturing system.
3. Equipment used in a computer assisted design or engineering system integral to an industrial process.
4. A subunit or electronic assembly comprising a component in a computer integrated industrial processing system.
5. Computer equipment used in connection with the computer assisted production, storage, and transmission of data **if** the equipment would have been exempt had the data transfer been made using tapes, disks, CD-ROMs, or similar media by a company whose business includes publishing doctoral dissertations and information archiving, and that sells the majority of the company's products to nonprofit organizations exempt under MCL 205.54q or MCL 205.94(1)(w).
6. Equipment used in the production of prewritten computer software or software modified or adapted to the user's needs or equipment by the seller, only if the software is available for sale from a seller of software on an as-is basis or as an end product without modification or adaptation.

The above exemptions are based on the **use of the equipment** rather than the nature of the purchaser's business.

Computers or computer main frames owned by servicers and located in Michigan that perform any of the above activities for an out-of-state company are exempt or partially exempt from tax, based on the amount of time used in the above activities.

### **Examples of exemptions are:**

- Computers programmed to operate robotics on an assembly line
- Robotics on the assembly line owned by the servicer operating the equipment

- Computers that design the final product and/or any component part of the final manufactured product
- Servicer-owned circuit boards in computers used to operate paint application systems
- Experimental research (R & D)
- Research and development for or on behalf of an industrial processor
- Items used or consumed in the CAD/CAM process that would be exempt for the industrial processor

Examples of **taxable** usage of computers and CAD software:

- Designing buildings by engineering firms
- Designing the layout of a home or kitchen by lumber yard companies or specialized kitchen designers
- Determining the stress loads for floor joists on load-bearing walls by lumber wholesalers or lumber yard companies
- A finished goods inventory retrieval system or stores account
- Engineering design and development not directly related to the manufacturing design process including any post-finished goods inventory storage activities
- Testing products for defects for an industrial processor (unless performed prior to the product coming to rest in finished goods inventory storage)

References pertaining to this information can be found in the index under [Chapter 7](#)



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## **Chapter 8 – Delivery – Just in Time**

The **just in time** delivery system is a highly interactive system of delivering products to the customer based on the customer's production requirements. The system usually involves the exchange of electronic data between the customer and the supplier.

No matter how coordinated the activities of the supplier's production and the customer's manufacturing schedule, the industrial processing activities of the supplier and the customer stand on their own separate merits.

From the delivery standpoint, there is a completed product that needs to be shipped to the customer. There is still a point where the product is complete prior to the shipping activity. The accumulation point or short term holding area would be considered finished goods inventory, therefore the shipping functions are taxable.

From the receiving standpoint, there is still a receiving function even though the product may go to a production staging area or directly into the production area to start the production process. The receiving functions are taxable when the items are received from an **outside** supplier (not the same person). The movement of the purchased products to a raw material inventory location is a taxable use of equipment. In general, the exempt uses of automated equipment begin when raw materials are removed from storage.

Automated equipment used for shipping or receiving is often the same equipment used to take the products to, from, or through the production areas.

Several uses for the same automated equipment will create the need to compute taxable and nontaxable percentages for the equipment. This can be accomplished by measuring the time spent on each activity or by counting the taxable and nontaxable movements or using some other method of generating a reasonable taxable percentage.

In general, Industrial processing begins when eligible property is removed from raw materials storage. This is easily identified when there is clear and identifiable raw material storage, but it becomes more difficult to identify receiving from exempt material handling activities when the purchaser's operations are highly automated.

The taxable and nontaxable areas of just in time inventory scheduling can be demonstrated with examples. The following examples assume the customer uses just in time delivery scheduling with its suppliers. The examples start with a low degree of automation and progress to a higher level of automation.

### **Example 1:**

The purchased parts are received at the receiving dock via truck. A forklift unloads the parts and puts them in a raw material inventory to be taken to the production area later. All equipment used to unload and handle raw material is taxable.

### **Example 2:**

The purchased parts are received at the receiving dock via truck. A forklift unloads the parts and puts them in an open area in the receiving department. After the truck is unloaded, the parts are taken to the production area. The equipment used to unload the truck is taxable. The equipment used to move the parts to the production area is exempt.

### **Example 3:**

The purchased parts are received at the receiving dock via truck. A visual inspection and manual inventory count are performed on the truck. The receiving area uses a conveyor to unload the truck. The parts are put in an open area in the receiving department. The parts are immediately taken to the production area by a different conveyor. The equipment used to unload the truck is taxable. The equipment used to move the parts to the production area is exempt.

### **Example 4:**

The purchased parts are received at the receiving dock via truck. On the truck a visual inspection and manual inventory count is performed. The trucks are designed with a track that allows the parts to roll out of the truck. The truck receiving area is designed with a slope toward the building. The parts are unloaded directly onto a conveyor via use of the track and gravity. After leaving the truck, the parts are moved by conveyor to the production area. In this example, there is **no taxable material handling activity** as the movement of the purchased parts is to the production area, being driven by the production process. There is a receiving activity, but no equipment is used for that purpose.

### **Example 5:**

The purchased parts are received at the receiving dock via truck. The trucks are designed with a track that allows the parts to roll out of the truck. The truck receiving area is designed with a slope toward the building. The parts are unloaded directly onto a conveyor via use of the track and gravity. At the midpoint of this conveyor a visual inspection and manual inventory count is performed. The conveyor then moves the parts to the production area. In this example, the conveyor is 50% taxable as a receiving function occurs at the mid-point of the conveyor system.

### **Example 6:**

The purchased parts are received at the receiving dock via truck. The trucks are designed with a track that allows the parts to roll out of the truck. The truck receiving area is designed with a slope toward the building. The parts are unloaded directly onto a conveyor via use of the track and gravity. As parts move on a conveyor through the receiving area, electronic equipment reads UPC bar codes or Radio Frequency Identifications (RFID's) to record the type and number of items received. The parts continue to move via conveyor to an auxiliary feed line to the production area. The parts will be used in production in 12 hours. In this example, the conveyor is taxable up to the point of the bar code equipment or RFIDs, as this is a taxable receiving function. The fact that the parts will not be used in production for 12 hours does not impact the decision. **The electronic equipment used to read the bar codes or RFIDs are taxable for accounting and inventory control purposes.**

References pertaining to this information can be found in the index under [Chapter 8](#)

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## Chapter 9 – Direct Pay

Direct pay is a process whereby the Michigan Department of Treasury authorizes taxpayers to assume the obligation to self-accrue and remit their sales and use tax liability directly to the Department.

Direct pay authorization is limited to the purchase or lease of tangible personal property or services for which the purchaser or lessee cannot practicably determine, at the time of acquisition, the manner in which the property or services will be used. The authorization must also facilitate improved tax compliance. The accurate and complete records in regard to this process are required to be maintained and subject to the review by the Department, who has the authority to determine which items are not eligible for direct pay.

Here are some conditions needed to be considered when determining qualifications of the direct payment:

- Any purchase or lease of tangible personal property or services not specifically excluded in the authorization letter is covered by the letter. A taxpayer agrees not to contest liability for use tax on taxable purchases that are not specifically excluded in the authorization letter by asserting that liability for tax rests with the seller.
- The Department will hold a seller responsible for sales or use tax on a purchase or lease that is specifically listed in the authorization letter as being ineligible for direct payment authorization.
- Tax on a purchase or lease of tangible personal property or services to which direct payment authorization applies is considered due and payable on the next sales and use tax return due following the earliest of:
  - a) The date the property or service was first used by the taxpayer.
  - b) The date the taxpayer made a determination of taxability for a particular purchase or lease.
  - c) The date the taxpayer should reasonably have made a determination of taxability for a particular purchase or lease.

The direct pay authorization does **not** include the following transactions:

- Materials furnished by, or supplied to, construction contractors in the performance of a contract to construct, alter, repair or improve real estate

- Vehicles purchased, leased or rented for highway use and requiring a license and title
- Aircraft
- Watercraft
- Services subject to use tax including communication services and motel rentals
- Petty cash purchases made by company employees on behalf of the company
- Prepayment of sales tax on gasoline
- Tangible personal property consumed by a person performing any service activity for its customer

Some contractors have a limited direct pay account. These usually cover specific construction projects. The limited permits pertain only to materials and equipment directly incorporated into the project. They do not include consumable materials and equipment used by the contractor (tools, torches, gases, cleaning solvents, etc.).

For an industrial processor, the direct pay permit or the limited direct pay permit covers the purchases of tangible personal property only, not materials attached to real estate by a contractor.

Corporate purchasing cards, procurement cards, or credit cards are covered under the direct pay permit.

Auditors should review current direct pay listings as taxpayers are added and removed periodically.

After February 8, 2018, a direct pay permit holder is no longer required to provide a copy of its authorization letter to a seller or lessor. A standard direct pay permit is shown on the next page.

Date

Taxpayer Name and Title

Business Name

Address

City, State Zip

Dear Taxpayer:

This is in response to your request for a direct pay letter. The Michigan Department of Treasury ("Department") hereby authorizes "Business Name" to operate under a direct pay permit for Michigan sales and use taxes. Your effective date is "Month/Day/Year".

This letter is your "direct pay" permit. This represents your authority to report sales and use tax liabilities directly to the Department and is limited to purchases of tangible personal property. In addition, the following are excluded from your direct pay authorization:

1. Materials furnished by, or supplied to, construction contractors in the performance of a contract to construct, alter, repair or improve real estate.
2. Vehicles purchased, leased or rented for highway use and requiring a license and title.
3. Aircraft.
4. Watercraft.
5. Services subject to use tax including communication services and hotel rentals.
6. Petty cash purchases made by company employees on behalf of the company.
7. Prepayment of sales tax on gasoline.
8. Tangible personal property consumed by a person performing any service activity for your company.

The purchase of power, steam, gas, etc. and capital appropriation items may be included under your direct pay procedure.

When claiming exemption from sales and use taxes on purchases of tangible personal property, other than those transactions stated above, on Box 10, Other (explain) of form 3372, Michigan Sales and Use Tax Certificate of Exemption, available on the Department's Web site, [www.michigan.gov/treasury](http://www.michigan.gov/treasury), you should state this notation: "Authorized to pay sales or use taxes on purchases of tangible personal property directly to the State of Michigan under Account Number "Taxpayer FEIN."

If you have any questions, please contact the Technical Services Section at the address or telephone number below.

Sincerely,  
Tax Policy Division

References pertaining to this information can be found in the index under [Chapter 9](#)

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## **Chapter 10 – Electrical Distribution Systems Apportionment of the Industrial Processing Exemption for Electric Delivery**

The movement of electricity between stations, substations, and the final consumer constitutes simultaneous exempt and non-exempt activity. Such exempted non-exempt activities occur simultaneously and throughout the entire electrical system. The simultaneous exempt and non-exempt use of the electrical grid requires apportionment of the industrial processing exemption. In general terms, an electricity grid refers to the interconnection of three specialized electricity processes – generation, transmission, and distribution. The transmission and distribution components of this grid generally make up the power delivery system that moves and delivers electricity to individual and business consumers.

The transmission system:

- Refers to the network of assets that supports the bulk transport of electricity at high voltages for the purpose of efficiently moving electricity across long distances throughout the electrical grid. The process of transmission generally begins when electricity voltage is increased to several thousand volts by transformers located at a generation plant. Once it reaches the distribution point, the electrical energy will pass through a local distribution substation that will reduce voltages to levels more appropriate for high-volume delivery over short distances. Thus, the transmission system generally includes transformers, high-voltage transmission lines, transmission towers and poles, and other related equipment that alters or moves electricity up to the point where electricity is converted to distribution voltages.
- Transmission voltages may vary based upon the grid they belong to, but generally vary in range between 69kV up to 765kV.

The distribution system:

- Refers to the network of assets that supports the movement and delivery of electricity to individual and business consumers. Distribution system generally begins at local distribution substations where electricity is first converted from high-voltage transmission levels to lower levels. Then electricity may be delivered directly to certain consumers or it may pass through additional distribution transformers that further reduce voltage levels as necessary for consumer use.
- Distribution voltages may vary but may range from between to 2kV to 35kV until final delivery to the consumer.

The treatment of assets as part of either the transmission or distribution system may be determined in reference to regulatory requirements. Certain public electrical utilities are

regulated by the Federal Energy Regulatory Commission (FERC). The FERC requires utilities to separately report production, transmission, and distribution assets. Taxpayers should follow FERC-promulgated rules and guidance regarding the classification of assets as either distribution or transmission. Where FERC guidelines are not applicable, the relative location of assets and the voltage levels by which assets interact with electricity in the system may be determinative. For example, equipment that supports wires that carry electricity at transmission voltages will be considered part of the transmission system.

#### **a. Generally Apportioned Percentage of Electricity Transmission System**

- The electricity transmission system may be apportioned as 60% exempt:
  - This is based upon the highly-interconnected, complex “mesh” design of modern transmission systems. These meshes include hundreds of varying points through which electricity can flow at varying loads based upon electrical demands throughout the entire transmission system. The total use of an asset within a transmission system is based on its use and overall location within this mesh. The complexity of these systems, as well as the dynamic nature of the movement of electricity within them, makes it particularly difficult to measure the use of an individual asset at any point within the transmission system itself. Therefore, the apportionment formula is based on the exempt use of the transmission system as a whole.

#### **b. Generally Apportioned Percentage of Electricity Distribution System**

- Distribution systems may be efficiently separated into functionally similar asset with the exempt use estimated based on the asset’s general use within the distribution system. The Department will generally rely on parallel FERC regulations for classifying assets into any of the categories listed below. Assets within an electrical distribution system may be apportioned based upon the following categories:

##### **Stations and Substations – 90% exempt**

Assets within this class include the stations and substations that receive electricity at high voltages from the transmission system. Stations and substations reduce voltages to appropriate levels as necessary for the movement and delivery of electricity throughout the remainder of the distribution system. Examples of assets included in this category include bus compartments, condensers, switchboards, and other switching equipment at the station.



### Transformers and Related Components – 90% exempt

Assets within this class include transformers and other related components that increase or decrease electricity voltage within the distribution system. These assets may generally be located in stations, in substations, or on utility poles.

### Wires, Cabling, and Related Equipment – 25% exempt

Assets within this class include the electrical conductor wires and other cabling used to move electricity at various voltage levels directly to consumers or to other stations, substations, or transformers within the distribution system. This class also includes other related equipment such as switches, circuit breakers, insulators, splices, and other line devices.

### Poles and Pole Top Equipment – 25% exempt

Assets within this class include utility poles and other mounted equipment that generally support overhead distribution conductors, wires, and cabling used to move electricity throughout the system. Examples of assets in this category include poles, towers, anchors, brackets, racks, guards, and railings. Also included is equipment that supports the transformers that alter voltages within the distribution system. Where poles or towers support both transmission and distribution assets, the poles and related assets shall be classified as part of the transmission system.

### Distribution Tools & Supplies – 50% exempt

Assets within this class generally include tools and equipment related to the installation, repair, and maintenance of certain station and substation equipment, poles and pole top equipment, transformers, wires and cabling, and other distribution assets.

### Supervision, Quality Control, and Personal Safety Equipment – 50% exempt

Assets within this class include equipment to provide for systems control and dispatching, general monitoring functions, and personal safety. Examples of assets in this class include Supervisory Control and Data Acquisition (SCADA) hardware and Emergency Management System (EMS) hardware. Personal safety equipment includes hardhats, gloves, glasses, harnesses, and other personal safety equipment used by personnel performing installation, repair, or maintenance work on distribution systems.

### Customer Meters – 25% exempt

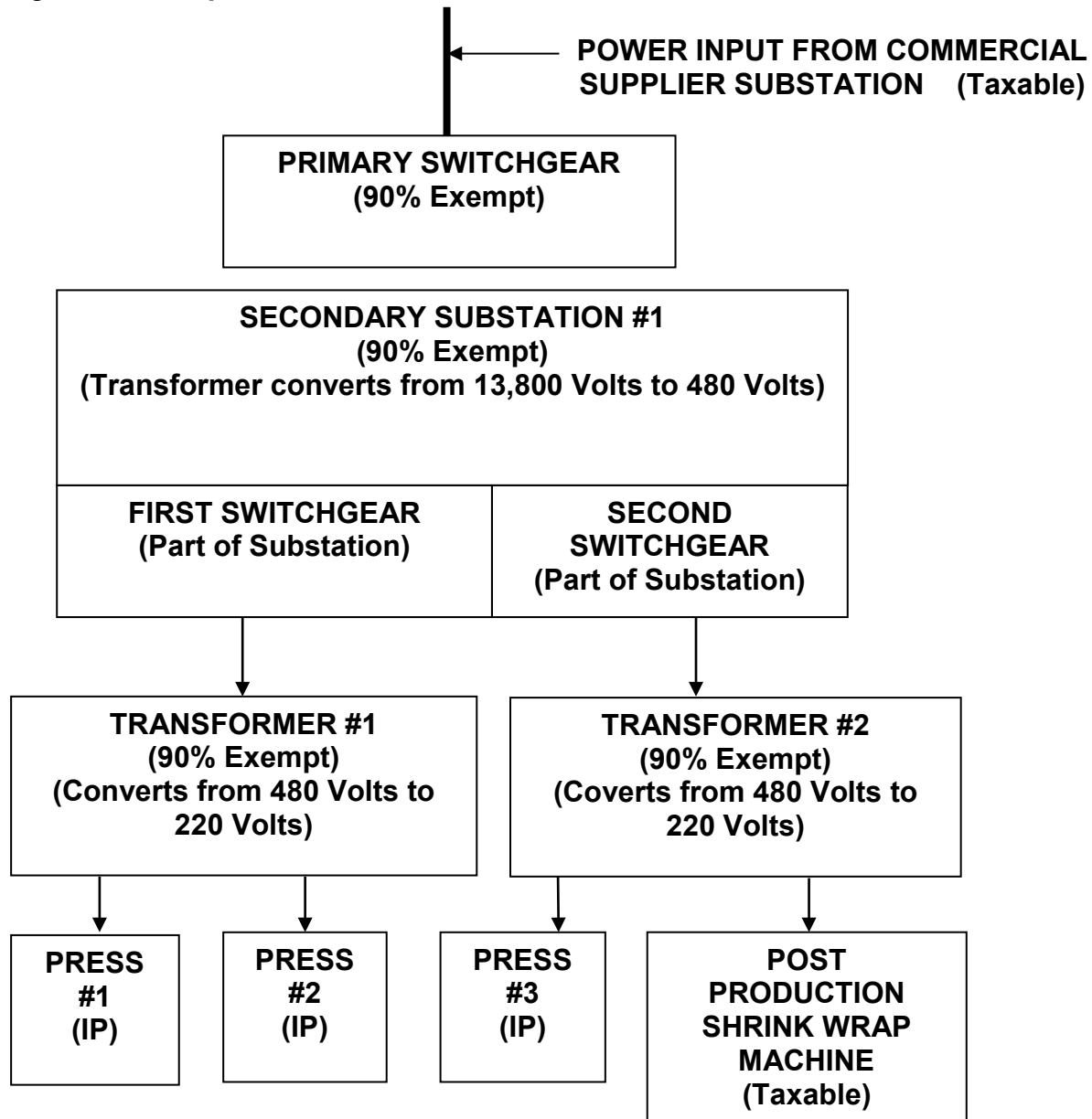
Assets within this class include customer meters or other related equipment that monitors total electricity consumption by the consumer.

**Note:** These apportionment percentages are approved by the Department to all providers whose transmission and distribution systems simultaneously perform exempt

and non-exempt activities. A taxpayer may request to apportion the industrial processing exemption on other factual grounds but must provide sufficient documentation that its calculation is reasonable under its circumstances.

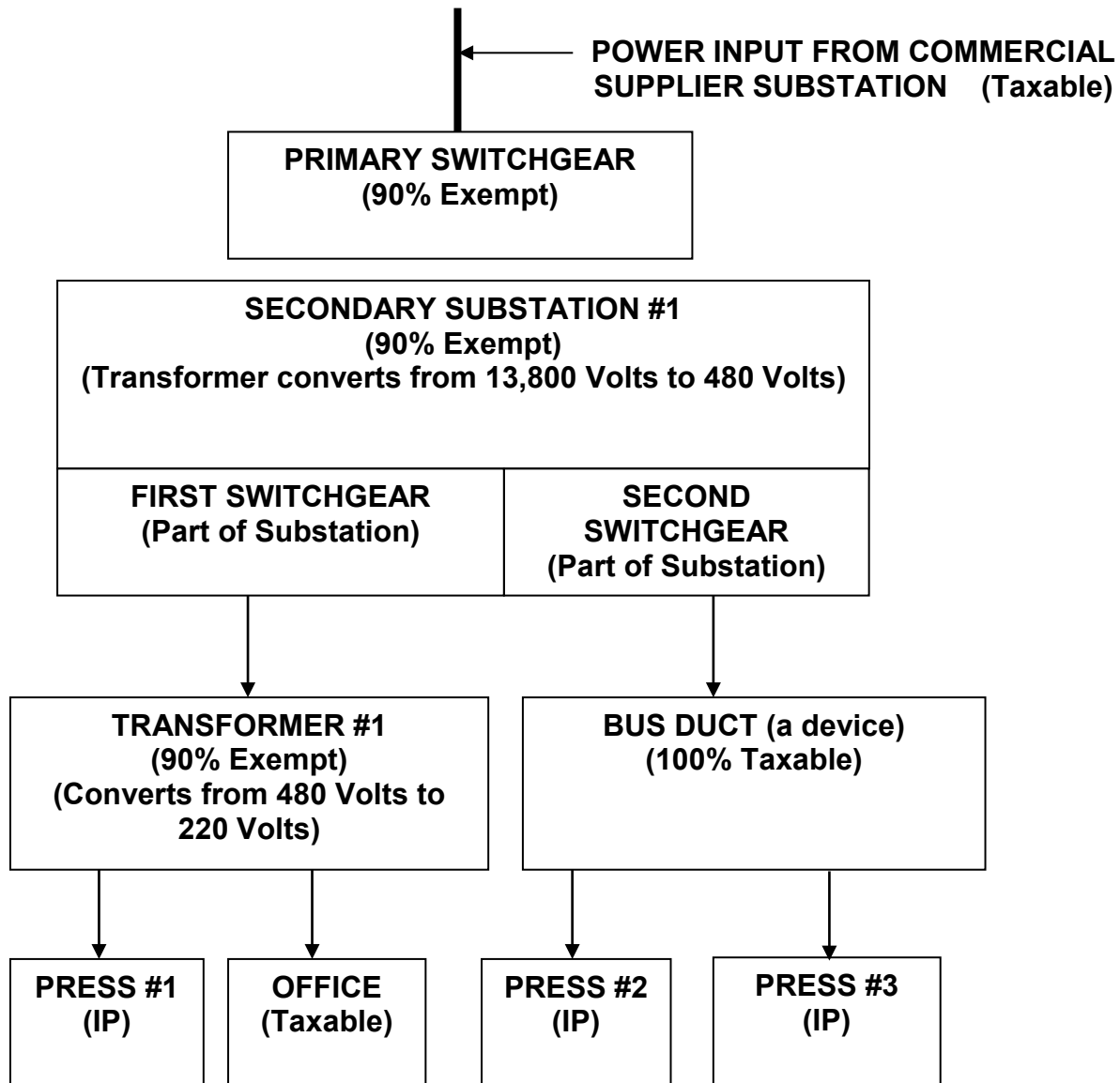
This section discusses the industrial processing exemption as it applies to tangible personal property used in electrical **distribution** systems. The following examples are based on the assumption that the property is not permanently affixed to real estate.

Figure 1. **Example 1:**



Based on the Court of Appeals holding in *Detroit Edison Co v Dep't of Treasury*, 498 Mich 28 (2015), equipment not permanently affixed and becoming a structural part of real estate that changes the voltage level of electricity prior to use is exempt under the industrial processing exemption. The exemption is limited to the extent the property is used for an exempt purpose based upon a reasonable formula or method approved by the Department. See RAB 2018-4, Sales and Use Tax -*Apportionment of the Industrial Processing Exemption for Electric and Gas Providers*.

Figure 2. **Example 2:**



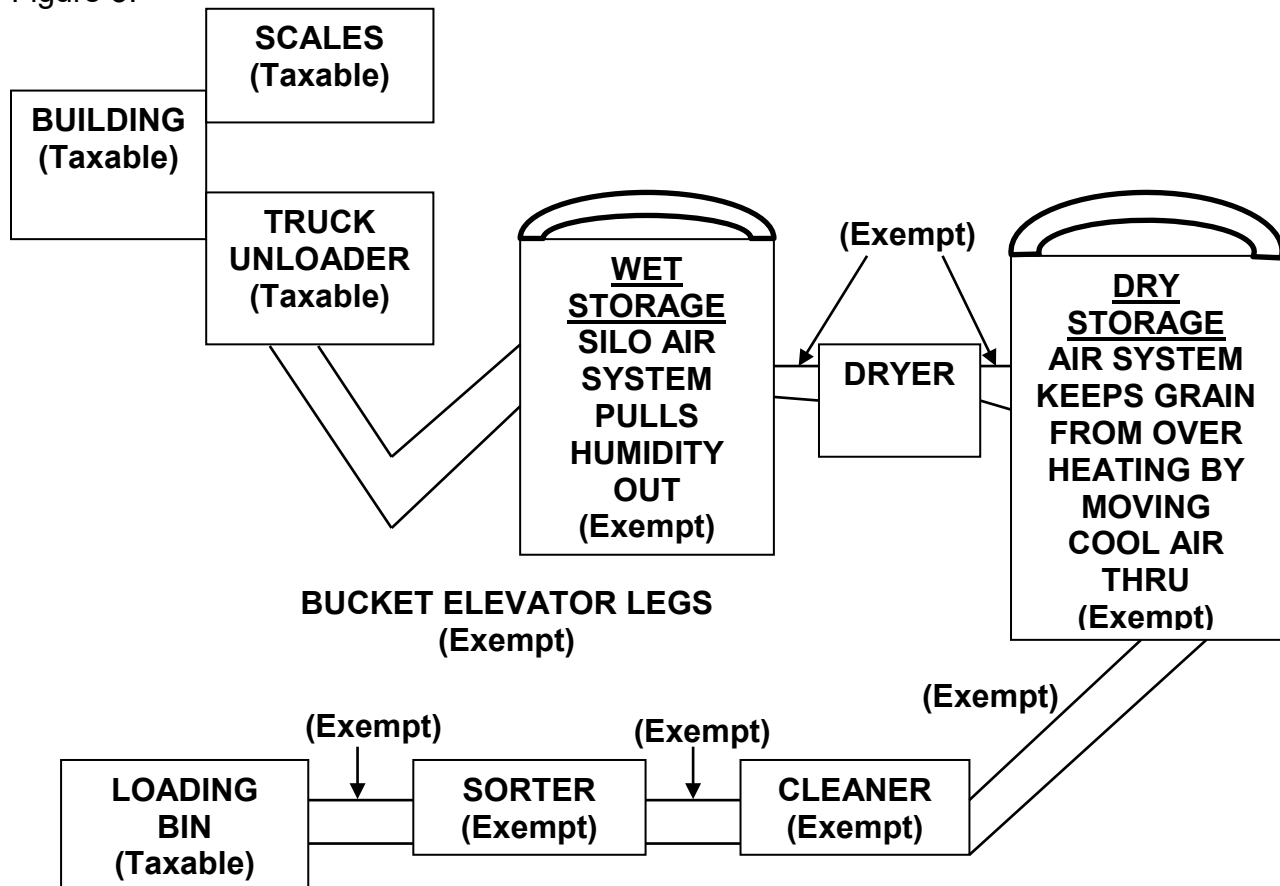
Based upon *Detroit Edison Co v Dep't of Treasury*, 498 Mich 28 (2015), industrial processing of electricity is complete when the electricity is finally delivered to the customer meter. In this case, the bus duct within the end user's facility is presumed to be 100% taxable because it is not used as a part of the electrical distribution system according to *Detroit Edison Company*.

References pertaining to this information can be found in the index under [Chapter 10](#)

## Chapter 11 – Grain Elevators

Equipment used to dry grain for or by a manufacturer may qualify for an industrial processing exemption. The following drawing shows a typical grain elevator and the areas that are normally taxable (T) or exempt (E).

Figure 3.



### Notes:

1. The electrical wiring of equipment is personal property and is taxable or exempt depending on where used
2. The actual silo is real property and is taxable
3. IP would not be allowed when drying is performed for farmers, as farmers are not manufacturers; however, the equipment used for drying process is qualified for the agricultural exemption
4. Cleaning equipment used to remove clay from grain is exempt industrial processing equipment. This is also true if this equipment is located at a secondary location (not in close proximity to the primary elevator site)

References pertaining to this information can be found in the index under [Chapter 11](#)

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## **Chapter 12 – Inventory Withdrawals/Consumed Goods**

**The use tax base of self-produced or purchased products placed into an inventory to be withdrawn for internal use or to be given away at no cost to an outside party is material cost. See the “Samples” section of this text.**

### **Michigan Withdrawals**

The below items withdrawn from a Michigan inventory are taxable on material cost regardless of where the item is shipped (see exceptions below). The items are considered to be **used or consumed** in Michigan. If the taxpayer erroneously remits tax to another state, a refund must be requested from the other state.

- Items consumed in the performance of optional maintenance contracts or service agreements are considered to be used internally and subject to use tax on material cost
- If an item is given away with a minimal charge that is designated as a shipping charge, tax is due on material cost. A shipping charge on a giveaway is not considered to be a sale at retail
- If an item is sold to a customer for a nominal charge that may be less than cost and does not represent a shipping charge, no use tax is due. The nominal charge is considered to be gross proceeds of a sale at retail with sales tax due

### **Example 1:**

A company purchases a catalog and charges \$5.00 to its customers for the catalog. The \$5.00 charge is less than the cost of a catalog. Any catalogs shipped out-of-state are in interstate commerce and exempt from tax under the Commerce Clause. Sales tax is due on the \$5.00 charge for any catalogs shipped to Michigan customers.

If a company sells 1,000 items of its product to a customer and gives the customer an additional 10 items of the product free, the additional 10 items are not considered taxable giveaway items. There is one gross selling price on the 1,010 items. The gross proceeds would be the amount charged for the 1,000 items.

A **tie-in** sale requires someone to first buy tangible personal property in order to receive a different item free. There is an advertisement that an item will be received free at the time of purchase. The advertised item given away with the tie-in sale is not subject to use tax. A portion of the gross proceeds received from the sale is attributed to the free item.

### **Example 2:**

A gas station advertises in the newspaper or at the pump island that a customer receives a free glass if they purchase 8 gallons of gas. The glass would not be subject to use tax by the gas station owner, since this is an exempt tie-in sale.

If a customer purchases a product and receives a free item without expecting to receive a free item, the person giving away the free item must pay use tax on the material cost of the free item. This is not considered a tie-in sale.

### **Example 3:**

A furniture manufacturer with a retail outlet sells a coffee table. The customer is given a can of furniture polish when they buy the coffee table. There was no advertisement that the furniture polish would be given to the customer. The customer was not expecting to receive anything when purchasing the coffee table. The seller owes use tax on the furniture polish given away on the purchase price.

### **Exceptions**

- Inventory withdrawals for the fulfillment of a contract affixing to realty by a manufacturer/contractor are taxable on finished goods inventory value
- Items that remain under control or possession of an owner of Michigan inventory, when transferred to out-of-state inventory to give away or for promotional purposes are not taxable because **use** does not occur in Michigan
- Rebate checks issued to promotional program recipients are taxable at cost. The checks do not meet the definition of promotional materials. The envelope used to mail the check would be exempt if mailed to a person out-of-state, since the envelope meets the packaging material definition

**Note: Since the tax base of inventory withdrawals is material cost, the percentage of equipment (with materiality considered) used to produce inventory items that are withdrawn would also be taxable.**

### ***Non-Michigan Withdrawals***

Items withdrawn from an inventory not located in Michigan and shipped into Michigan may be taxable on material cost with an appropriate credit for any sales or use tax, including local taxes, which had been legally due and paid in another state. If the tax paid was less than the tax imposed by Michigan, the difference in the tax is due.

The following conditions must be met for an inventory withdrawal outside of Michigan to be exempt from tax

- The distribution is made by mail or common carrier
- The distribution originated from out-of-state
- The taxpayer has no control in Michigan over the distributed items. Control can be actual physical possession or other control as noted in Examples 2-4 below

This exemption would extend beyond catalogs to include promotional literature, samples, giveaways, etc.

**Example 1:**

ABC Company gives away brochures to its customers in Michigan. An out-of-state company prints the brochures. The out-of-state printer ships the brochures by mail to ABC Company's customers in Michigan. ABC Company never received physical possession of or title to the brochures nor did it have any control over the brochures in Michigan. The brochures are not subject to tax.

**Example 2:**

ABC Company gives away brochures to its customers in Michigan. An out-of-state company prints the brochures. The out-of-state printer ships the brochures by mail to ABC Company's customers in Michigan. The mailing package is marked "return to sender." ABC Company never received physical possession of or title to the brochures. Specific mailing instructions, (e.g., "return to sender" or "address correction requested"), do not constitute control over the brochures in Michigan. The brochures are not subject to tax.

**Example 3:**

ABC Company hires an out-of-state printer to print advertising supplements. The out-of-state printer ships the supplements to a distributor located in Michigan for further distribution based on guidelines or instructions provided by ABC Company (number of inserts to be distributed at any given time, date of distribution, etc.). ABC company has nexus in Michigan. ABC Company has sufficient control over the supplements in Michigan. Therefore, the supplements are taxable on material cost.



**Example 4:**

National Corporation, an out-of-state corporation, has nexus in Michigan through various distributors. The distributors give away products of National Corporation as promotional material. National Corporation gives specific instructions to the distributor as to where the product is to be located and what records to maintain relative to the distribution. The distributor has to sign a distribution agreement with National Corporation. National Corporation is subject to use tax on the material cost of the items given away in Michigan since it has sufficient control over the distributed product (this example assumes there is no sale of products between National Corporation and the distributors).

References pertaining to this information can be found in the index under [Chapter 12](#)

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## Chapter 13 – Material Handling

In general, the **beginning** of the industrial process is when the tangible personal property begins movement from raw material storage to begin the industrial process. The **end** is when the finished goods first come to rest in finished goods inventory.

Material handling equipment used by an industrial processor to move the production material from one process to the next process is exempt, within the same facility or by the same person. This includes the material handling equipment used in shipping and receiving in-process material to a separate location of the same person for sub-processing. Subsidiaries are considered different persons when evaluating the tax status of material handling equipment. There is also a specific exemption available for front end loaders, forklifts, pettibone lifts, skidsters, multipurpose loaders, knuckle-boom log loaders, tractors, and log loaders used to unload logs from trucks at a saw mill site for the purpose of processing at the site and to load lumber onto trucks at a saw mill site for purposes of transportation from the site. Vehicles required to be licensed and titled for use on public highways are not eligible for the industrial processing exemption.

Receiving departments are taxable areas when receiving **purchased** materials. The shipping and receiving activity for in-process materials would be an exempt activity when conducted within the same person. The in-process materials may come from another plant location or division of the taxpayer. The same shipping and receiving activity conducted with a different person is considered taxable. This dual shipping and receiving activity will require treating the same equipment as partially taxable and partially nontaxable.

The movements from raw material inventory to a staging area or an area adjacent to the processing equipment would be an exempt movement of the material.

Types of material handling equipment and parts:

- Fork lift trucks
- Overhead cranes
- Low boy skid trucks
- Conveyors
- Electronic guided tracking systems
- Pallet jacks
- Tuggers

- Repairs (parts) and maintenance
- Batteries, battery chargers, charger stands
- Utilities (electricity and propane, etc.)

General types of material handling movements:

- Receiving **purchased** raw materials is taxable
- Movement of the **purchased** raw materials to raw materials inventory storage is taxable
- Movement of the raw materials to an area adjacent to the production machinery is exempt
- Movement of the raw materials from an area adjacent to the production machinery, or from inventory, to the production machinery is exempt
- Movement of in-process materials from one machine or production process to another machine or process is exempt
- Movement of the completed product to finished goods inventory is exempt
- Movement of the completed product from finished goods inventory to the shipping area is taxable
- Material handling equipment used in the shipping functions of finished goods is taxable
- By the same person, the material handling equipment used by a manufacturer in the shipping and receiving functions of in-process materials/goods is exempt when the materials are sent out and returned for sub-processing
- Between different persons, subsidiaries or unrelated companies, the material handling equipment used by a manufacturer in the shipping and receiving functions of in-process materials/goods is taxable when the materials are sent out and returned for sub-processing
- The shipping and receiving functions of the different sub-processor are taxable, as these functions are not considered exempt in-process material handling movements. It is raw material when received by the sub-processor and a finished product of the sub-processor when shipped out

- Material handling equipment used for shipping from one plant (division) to a second manufacturing facility (division) of the same company (same person) is considered exempt as long as the product is still going through the process of production and has not reached the completed product that is marketed by the company

Usually, in industrial processing audits the material handling equipment will be used in both the taxable and nontaxable areas. The statute requires a determination of the taxable/nontaxable percentage of use.

Methods that can be employed to determine the taxable/nontaxable percentages:

- Number of taxable movements compared to the total number of movements
- Amount of time used in the taxable movements to the total time for all movements
- Specific allocation - number of pieces of equipment in the taxable areas compared to the total number of pieces of equipment
- Specific identification with a taxable area or department
- Any other reasonable method as discussed

Actual costs associated with taxable and/or exempt areas or activities are quite often available through cost accounting records. If available, the actual costs should be used for audit purposes.

References pertaining to this information can be found in the index under [Chapter 13](#)

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## Chapter 14 – Miscellaneous

Situations may occur during audits where the availability of an industrial processing exemption may be in question. Below are some examples:

- A road builder entered into a contract to build an asphalt highway. The contractor sets up a batch plant at the job site to manufacture the asphalt. The batch plant is taxable. The form, composition, quality, combination, or character of the tangible personal property is being changed or converted in this instance. However, there is no ultimate sale at retail. The contractor is the consumer of the material.
- A magazine distributor picks up, shreds, and bales unsold magazines. The shredded magazines are sold to a paper mill. There is a sale at retail that takes place here, and the shredding machine is exempt for industrial processing. See “Scrap Dealers and Recyclers” Section of this text.

In the following examples, a **roto mill** is used to break up existing road surface, so it can be removed from the site. The site is then prepared for a new road surface.

- A road contractor is hired to replace a section of a highway. The contractor sells the crushed road surface material to a purchaser who will use it to make new road surface material
- An asphalt manufacturer/contractor uses a roto mill at the job site to crush the asphalt. The crushed asphalt is taken to their manufacturing plant and recycled into new asphalt that is to be used for a future contract job
- An asphalt manufacturer/contractor uses a roto mill at the job site to crush the asphalt. The crushed asphalt is taken to their manufacturing plant and recycled into new asphalt to be resold to a road contractor
- ABC Company is hired by an asphalt manufacturer to remove asphalt from the highway. The asphalt manufacturer provides the company with a roto mill that crushes the asphalt so it can be recycled
- An asphalt manufacturer-contractor removes asphalt from a highway and uses a roto mill at the job site to crush the asphalt. The crushed asphalt is taken to their manufacturing plant and recycled into new asphalt

In the above situations the roto mill is taxable. The companies are using the roto mill to alter real property and the crushing of the asphalt facilitates transportation of the product. The fact that the form, composition, or character is changed is incidental to the service of removing the asphalt from the existing road surface.

An entity can get the IP exemption if the property is intended for and actually used by an industrial processor in industrial processing. This effectively gives an exemption for those who purchase tooling and other similar property that is subsequently given to another entity for actual use in industrial processing activities.

The following examples illustrate this concept:

**Example 1:**

ABC Corporation is a book publisher located in Michigan. It performs composition work, artwork, and graphics in conjunction with the books it sells. However, all of the actual printing of the books is done by a printer located in Ohio. Is ABC Corp. liable for sales or use tax on equipment or supplies used in performing the artwork, graphics, and composition?

Answer:

No, these items would be exempt as IP. ABC Corp. is an industrial processor as its activities are part of transforming, altering or modifying the form, composition, or character of property that will ultimately be sold at retail.

**Example 2:**

XYZ Corporation is a wholesale distributor of kitchen cabinets located in Michigan. All of its (cabinetry) inventory is produced by a separate company under common ownership, ABC Corporation, which is also located in Michigan. XYZ Corp. has employees (engineers) permanently on site at ABC Corporation performing quality control functions and product inspection of in-process items. Is XYZ Corp. liable for sales and use tax on the tools and supplies purchased for its engineers?

Answer:

No. The tools and supplies purchased for this engineering function would be exempt. Any entity is entitled to the industrial processing exemption if the property is used to perform an industrial processing activity for or on behalf of an industrial processor.

References pertaining to this information can be found in the index under [Chapter 14](#)

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## **Chapter 15 – Packaging Tools and Equipment**

Packaging equipment used before the product first comes to rest in finished goods inventory is exempt. Packaging equipment used after the product comes to rest in finished goods inventory is taxable. The following are examples of packaging equipment:

- Staple guns
- Tape dispensers
- Equipment for boxing completed products
- Shrink wrappers
- Palletizers
- Banding machines
- Powder filling machines
- Top, vertical, front and back labeling machines
- Sealing machines
- Packing tube machines

Industrial processing ends “when finished goods first come to rest in finished goods inventory storage.” This means that all the equipment the processor uses for the preservation or maintenance of a finished good before it first comes to rest in finished goods inventory storage will be exempt.

### **Example 1:**

A sale of paper towels to a drug store will involve the packaging of the towels in individual rolls. If the towels are shrink-wrapped and boxed before placement in finished goods storage, the equipment will be exempt.

Any equipment used to further package or move the product after it is placed in finished goods inventory is taxable. If the paper towels are taken from finished goods storage and shrink wrapped or boxed prior to shipment, that equipment is taxable.

**Example 2:**

A manufacturer of tulip bulbs sells its product in small plastic bags at retail outlets. It is also engaged in mail order sales where it is required that these plastic bags of tulip bulbs be boxed for further shipment. The equipment that moves the plastic bags of tulip bulbs from the finished goods storage to the boxing process is taxable.

The above examples illustrate that the same equipment may be used in both taxable and exempt packaging operations. Methods to determine taxable/nontaxable percentages of use are discussed in the "Materials Handling" and "Percentage Application" sections of this text and can also be applied to determine the taxable portion of packaging equipment.

The packaging function is illustrated in the "Packaging Function" section of this text.

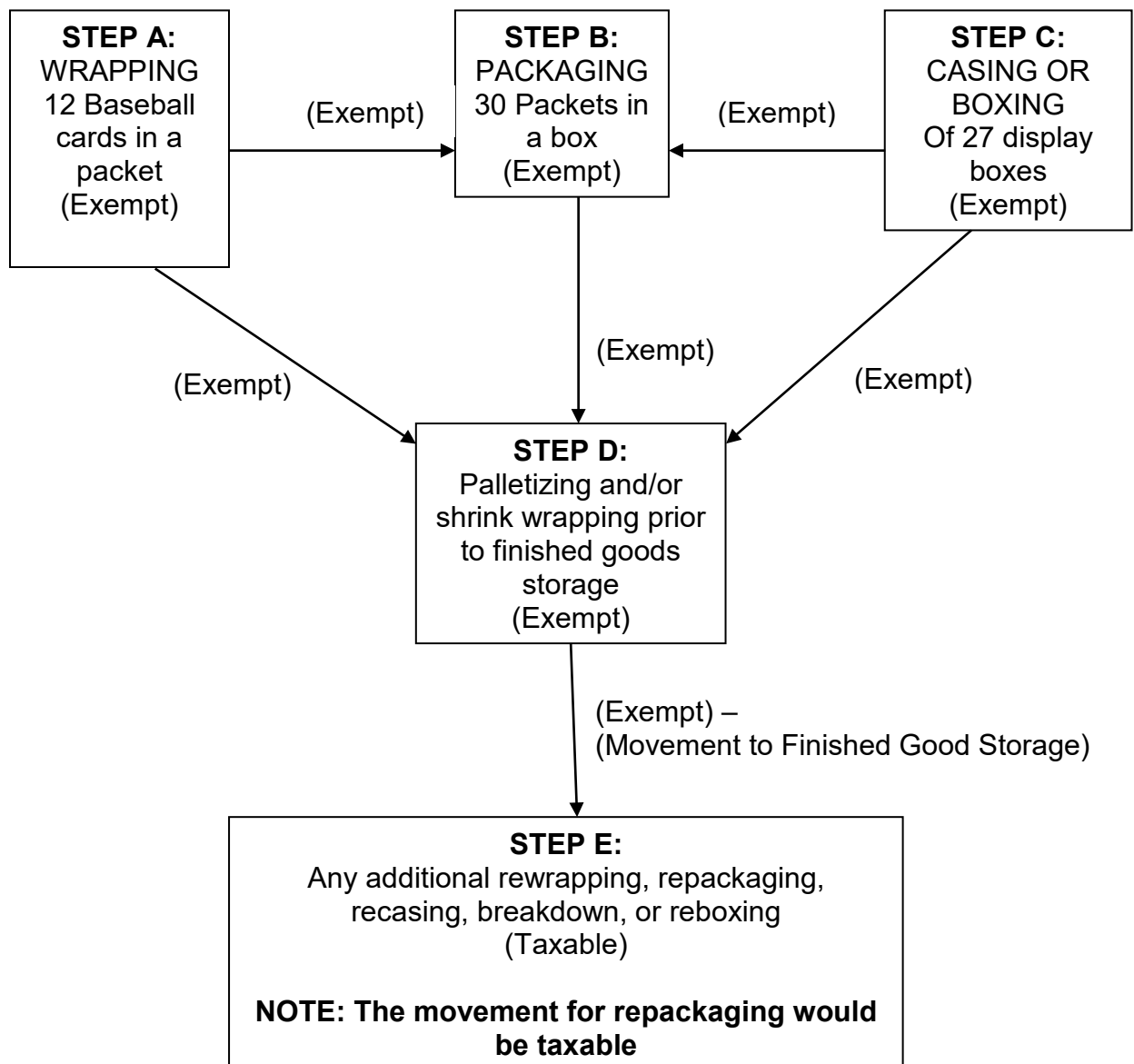
References pertaining to this information can be found in the index under [Chapter 15](#)



## Chapter 16 – Packaging Function

Depending on when packaging occurs, an industrial processor's packaging activities may be taxable or may qualify for exemption as part of the industrial process. This example uses a baseball card manufacturer and outlines the activities that are normally taxable (T) or exempt (E), but the general principles would be applicable to any manufacturer.

Figure 4.



References pertaining to this information can be found in the index under [Chapter 16](#)

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## **Chapter 17 – Packaging Materials**

**Non-returnable** containers used to ship and deliver manufactured products are exempt. One-time-use shipping containers, packaging materials, shrink wrap, bags, tags, labels, tape, staples, steel banding and similar shipping materials are exempt from tax for resale, as they accompany the item manufactured and sold. However, any shipping products used after the property has come to rest in finished goods inventory are taxable.

Returnable containers are taxable unless they are used for:

- In-process storage
- In-process movement within the plant
- In-process movement between divisions (of the same person)

Non-returnable containers and other shipping supplies used to ship and deliver products to a sub-processor that is a separate person are taxable. Machinery and equipment used for this function are also taxable.

Non-returnable containers and other shipping supplies used to ship and deliver products to a sub-processor that is the same person (e.g. division) are nontaxable because they are in-process material handling. Machinery and equipment used for this function are also exempt.

If the same containers are used in both taxable and exempt movements, an evaluation should be made based on any of the methods described in the “Materials Handling” and “Percentage Application” sections of this text.

### ***Dunnage***

Dunnage describes interior packaging components used in supporting and securing packages for shipping and handling. These materials are used to aid the shipping or transportation functions, which are taxable. Any of these materials used to prevent containers from slipping or shifting during transportation such as bracing, padding, foam, plastic corrugated, solid plastics, flexible foams, aluminum, steel, corrugated paper, wood, or any combination of these which are thrown away when the containers reach their destination are taxable. Dunnage is normally used in railcars and the trucking industry.

The word **dunnage** is also used to describe shipping containers and racks in the automotive industry. These would only be exempt for movement within sites operated by the same person.

Dunnage is taxable if used **exclusively** on trucks or railcars transporting in-process materials to a sub-processor that is a separate person. Dunnage is exempt if used for in-process storage or movement within or between plants operated by the same person.

**Caution: One time use of packaging material (e.g., popcorn, styrofoam, peanuts) is not considered dunnage.**

See the “Packaging Equipment” section of this text for taxability of packaging equipment.

References pertaining to this information can be found in the index under [Chapter 17](#)

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## **Chapter 18 – Percentage Application**

There are many instances where an industrial processor uses equipment, fuel, repair parts or utilities in both a taxable and non-taxable manner.

The industrial processing exemption is only available to the extent that the property is used for the exempt purpose stated in the exemption. The exemption is limited to the percentage of exempt use to total use determined by a reasonable formula or method approved by the department.

Some of the areas that are commonly apportioned between taxable and exempt consumption are:

- Material Handling - Forklifts, Cranes, Pallet Jacks, Conveyors, etc., including Propane and Repair Parts
- Utilities – Gas, Electricity, Steam and Propane
- Computer Usage – Administrative, CAM, Design, Engineering, Communication, etc.

Methods that can be employed to determine the taxable/nontaxable percentages:

- Number of taxable movements compared to the total number of movements
- Amount of time used in the taxable movements to the total time for all movements
- Specific allocation - number of pieces of equipment in the taxable areas compared to the total number of pieces of equipment
- Specific identification with a taxable area or department. If specific use can be determined, it would not be allocated
- Square/Cubic footage – Taxable area to total area. Applicable to Heat (Propane, Gas, Steam)
- Head count – Taxable users to total users
- Production hours – compared to non-production hours
- Any other reasonable method as discussed and approved by the Department

References pertaining to this information can be found in the index under [Chapter 18](#)

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## ***Chapter 19 – Policy (Or Goodwill) Adjustment***

A policy (or goodwill) adjustment is usually performed by a manufacturer to maintain customer satisfaction and market share. These adjustments may also be known as **goodwill service** and does not necessarily meet the definition of a manufacturing or extended warranty. **Goodwill** refers to all repairs made at no charge when the tangible personal property is out of **warranty**.

### ***Description***

A policy adjustment occurs when a manufacturer (or its third party representative) repairs or replaces tangible personal property for a customer under the following conditions:

- The repair is free of charge to the customer
- The repair is made after the original manufacturer warranty period has expired

### ***Taxability of Parts Replaced Under Policy (or Goodwill) Adjustment***

This type of adjustment is part of the original selling price of the vehicle and its original warranty. Therefore, parts provided to customers under a policy (or goodwill) adjustment are not subject to additional sales or use tax.

References pertaining to this information can be found in the index under [Chapter 19](#)

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## **Chapter 20 – Printers**

A printer qualifies as an industrial processor when it prints items for ultimate sale at retail (books, advertising supplements, business cards, invitations, brochures, etc.) or acts on behalf of an industrial processor.

### ***Printing Service***

When a customer provides their own paper/stock, the printer is providing a service. Thus, the industrial processing exemption is not available to the printer. “If a customer furnishes his own printing stock which was acquired from another source and the printer imprints thereon the name, address and telephone number, this constitutes the rendition of a service.” (R 205.113) Therefore, there is no ultimate sale at retail and the purchase of ink, paper, capital assets, utilities, consumable supplies, and any other items used by the printer to provide the service are taxable.

References pertaining to this information can be found in the index under [Chapter 20](#)

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## **Chapter 21 – Prototypes**

A prototype is an original model on which something is patterned. A simulation or sample version of a final product, which is used for testing prior to launch. **Product** as defined in the industrial processing exemption, when referring to research and experimental activities, “includes, but... is not limited to a prototype, pilot model, process, formula, invention, technique, patent, or similar property, whether intended to be used in a trade or business or to be sold, transferred, leased, or licensed.”

The development, design and manufacture of a prototype by an industrial processor is exempt. For example, if one of the automotive companies developed their own auto-related prototype, this activity would be industrial processing.

This exemption also applies to a person who will use the property to perform an industrial processing activity for or on behalf of an industrial processor. For example, a servicer builds a prototype for a manufacturer, who will use the prototype to test, design and develop his or her own product.

Other examples of non-automotive prototype:

A manufacturer of cooking spices designs a new package for its product and makes twenty (20) prototypes of the packaged spics for testing purposes. The materials, supplies and equipment used to make the prototypes would be exempt for the purpose of industrial processing.

References pertaining to this information can be found in the index under [Chapter 21](#)

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## **Chapter 22 – Quality Control / Research or Experimental / Engineering**

Industrial processing includes the following activities:

- Research or experimental activities
- Engineering related to industrial processing
- Inspection, quality control or testing to determine whether particular units of materials or products or processes conform to specified parameters **at any time before materials or products first come to rest in finished goods inventory storage**

**Note:** Because these activities can occur “at any time” prior to the materials or goods coming to rest in finished goods inventory, they may still qualify for IP even if they occur *before* there is movement from raw materials storage.

If the taxpayer is an industrial processor engaged in industrial processing, as those terms are statutorily defined, equipment and supplies used directly for any of the above activities are exempt.

### **Example 1:**

An industrial processor receives notice from its customers that unacceptable levels of its finished goods inventory have burrs on them that prevent the inventory from being used in the machinery being built for resale. The taxpayer hires an outside firm to come in and sort through the inventory in **finished goods storage**. This outside servicer would not qualify as an industrial processor in this instance and any equipment or supplies they use to do the sorting would be taxable.

If this same servicer were to sort all of the inventory that are in **in-process storage** they would qualify as an industrial processor, as they are performing quality control work, and all of their equipment and supplies used in this sorting would be exempt.

### ***Research or Experimental***

Research or experimental activities are defined, for purposes of the industrial processing exemption, as “activity incident to the development, discovery, or modification of a product or a product related process.” It also includes activity necessary for a product to satisfy a government standard or receive governmental approval.

Some examples of activities that are **not** research or experimental activities:

- Efficiency surveys



- Ordinary testing or inspection of materials or products for quality control purposes
- Management surveys
- Market or consumer surveys
- Advertising or promotions
- Research in connection with literacy, historical, or similar projects
- Supplies and equipment used in research and development not by or for an industrial processor (may be prorated if at least one of the customers is an industrial processor).
- Qualification for ISO9000 Certification is not exempt as Research and Experimental Activity

### ***Quality Control***

All equipment and supplies used in the testing of raw materials and the inspection of the product or the process at any point (including before movement from raw materials storage) are exempt up to the time the product is put into finished goods inventory storage, whether the testing or inspection is done by the processor or a third party servicer. Once the product is placed in finished goods storage any quality control testing functions are taxable.

Storage facilities are taxable if used to store raw materials or finished goods inventory; they are exempt if used for in-process storage. Racks used to store test tubes, dies or any other equipment/material are taxable unless it is in-process storage. Refrigerators in the quality control department used to store raw material testing compounds are taxable, but not if they are in-process storage.

### ***Engineering***

Engineering activities related to industrial processing are exempt.

**CAUTION: Not all engineering costs are related to industrial processing; for example, building maintenance, receiving, equipment removal, etc., are not eligible for the exemption.**

Blueprint storage cabinets (file cabinets or on-line storage cabinets) are taxable.

References pertaining to this information can be found in the index under [Chapter 22](#)

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## ***Chapter 23 – Real vs. Personal Property***

Real property is generally not eligible for the industrial processing exemption (except for foundations for machinery or equipment used in industrial processing). To determine whether property remains tangible or is made a structural part of realty, we look to three general tests:

- Annexation to realty, either actual or constructive
- Adaptation or application to the use or purpose of the real estate
- Intention to make the article a permanent accession to the real estate

For personal property to be considered a fixture by the Department, each of the three test factors must be satisfied since no one factor is determinative on its own.

### ***Annexation to Realty, either Actual or Constructive***

If property is actually or constructively annexed to the realty it may be real property. If the item is attached in such a manner that its removal would destroy the building, do substantial injury to the building or impairs the property's value or the value of the realty, the item is usually held to be real property.

The doctrine of constructive annexation has frequently been applied in the case of property which is not itself actually or directly annexed to the realty, but is part of, or accessory to, property which is annexed. Property that is not physically affixed to realty may become a fixture by constructive annexation. The property, if removed, would leave the property to which it is annexed unfit for use and the part or accessory is not capable of general use elsewhere.

Certain equipment remains personal property even though it may appear to be part of real property. Since some items can have the appearance of being real property, it is important to ascertain all the facts before making a final decision.

If the object is not attached to the land or to some structure or appliance which is attached to the land, it will retain its character or personality even though intended for permanent use on the premises.

Generally, if property depends on a building's utility for operation and use, and it is connected to a building's utilities (e.g., gas, electric, plumbing), it would be deemed to be affixed to realty.

### ***Adaptation or Application to the Use or Purpose of the Real Estate***

If property functions as part of a particular building, or if it carries out part of a function of the real property, that item is likely real property. An example of this type of real property would be screens which are built to fit the windows of a particular building.

Another indicator that property is real property is that it cannot be used unless affixed to the building or land.

In simple terms, if the tangible personal property serves a function of realty or the building and it is attached and permanently affixed to realty, it is likely that it is real property.

### ***Intention to make the Article a Permanent Accession to the Real Estate***

Objective visible facts are used to determine whether intention to make the property a permanent accession to the realty exists.

The permanence required is not equated with perpetuity. It is sufficient if the item is intended to remain where affixed until worn out, until the purpose to which the realty is devoted is accomplished, or until the item is superseded by another item more suitable for the purpose.

Intent may be inferred from the nature of the article affixed, the purpose for which it was affixed, and the manner of annexation. Whatever is affixed to a building by an owner to complement or facilitate its use and occupation in general, becomes a part of realty, though it may be capable of removal without injury to the building.

### ***Manufacturer/Contractor***

A manufacturer/contractor is a manufacturer that affixes its product to the real estate of others and must remit use tax at the time the product is converted to the contract (i.e. withdrawn from inventory for affixation to the real estate of another under the contract) only if the real estate where the product is to be affixed is located in Michigan. An industrial processing exemption is not allowed for the use or consumption of tangible personal property in connection with the manufacture of a product permanently affixed and becoming a structural part of real estate located in Michigan.

Property purchased or manufactured by a person engaged in the business of constructing, altering, repairing, or improving real estate for others (i.e. a contractor) is **exempt** from use tax if the property is affixed to (and made a structural part of) real estate located in another state.

## Taxability Chart – Real vs. Personal Property Tax Status for Industrial Processors

Table 3.

No.	Description	Real or Personal for Sales/Use	Sales & Use Tax Status for IP
1	Acoustical ceilings: <ul style="list-style-type: none"> <li>• Building ceiling construction</li> <li>• IP equipment sound attenuation</li> </ul>	Real Personal	Taxable Exempt
2	Air compressor: <ul style="list-style-type: none"> <li>• For specific IP machinery</li> <li>• Part of central system</li> </ul>	Personal Real	Exempt Taxable
3	Air conditioning systems for general building	Real	Taxable
4	Air conditioning units: <ul style="list-style-type: none"> <li>• Window type units</li> <li>• Floor or cabinet type – no ductwork</li> <li>• Process – central system</li> <li>• Evaporators</li> </ul>	Personal  Personal Real Real	T or E *  T or E * Taxable Taxable
5	Air makeup unit: <ul style="list-style-type: none"> <li>• For specific IP function</li> <li>• For general building</li> </ul>	Personal Real	Exempt Taxable
6	Alarm/security systems: <ul style="list-style-type: none"> <li>• Built-in components</li> <li>• Free-standing or wall-mounted components</li> </ul>	Real  Personal	Taxable  Taxable
7	Annealing furnaces (small furnace to heat up parts)	Personal	Exempt
8	Appliances (Built-In) Appliances (Freestanding)	Real Personal	Taxable T or E *
9	Awnings – canopies/marquees	Real	Taxable
10	Berms	Real	Taxable
11	Bins: <ul style="list-style-type: none"> <li>• Portable</li> <li>• Built-in</li> </ul>	Personal Real	T or E * T or E *
12	Boilers: <ul style="list-style-type: none"> <li>• One boiler (bldg function)</li> <li>• Replacement boiler (bldg function)</li> <li>• Boiler for specific IP machine</li> <li>• Multiple boilers</li> </ul>	Real  Real Personal R or P*	Taxable  Taxable Exempt Taxable if affixed
13	Booths: <ul style="list-style-type: none"> <li>• IP equipment type</li> <li>• Building type - room like</li> </ul>	Personal Real	Exempt Taxable

No.	Description	Real or Personal for Sales/Use	Sales & Use Tax Status for IP
14	Bridges: <ul style="list-style-type: none"> <li>• Specific to IP equipment</li> <li>• Specific to building</li> </ul>	Personal Real	Exempt Taxable
15	Bunkers and silos	Real	Taxable
16	Bus ducts (also see “electrical distribution systems” section of this text): <ul style="list-style-type: none"> <li>• For general electrical distribution</li> <li>• For specific IP equipment</li> </ul>	Real Personal	Taxable Taxable
17	Catwalks: <ul style="list-style-type: none"> <li>• Attached to IP equipment</li> <li>• Attached to building</li> </ul>	Personal Real	Exempt Taxable
18	Central control systems: <ul style="list-style-type: none"> <li>• Direct control for specific IP equip</li> <li>• General control power wiring</li> <li>• Control building</li> </ul>	Personal Real Real	Exempt Taxable Taxable
19	Clocks: <ul style="list-style-type: none"> <li>• Payroll and watchman clocks</li> </ul>	Personal	Taxable
20	Communications systems -- permanent: <ul style="list-style-type: none"> <li>• Phone</li> <li>• Pneumatic tubes</li> </ul>	Personal Personal	Taxable Taxable
21	Compressor for general building air conditioners	Real	Taxable
22	Conveyor or carrier enclosures (see enclosures below)	Personal	Exempt
23	Conveyors	Personal	% Based on Use
24	Cooling towers	Real	Taxable
25	Crane tracking or rails (craneways)	Personal	% Based on Use <a href="#">(1)</a>
26	Cranes	Personal	% Based on Use <a href="#">(1)</a>
27	Decks and drains (process)	Real	Taxable
28	Dehumidifiers: <ul style="list-style-type: none"> <li>• Portable</li> <li>• Part of heating/air conditioning</li> </ul>	Personal Real	% Based on Use Taxable
29	Dikes or levees: <ul style="list-style-type: none"> <li>• Surrounding storage tanks</li> <li>• River or lake control</li> </ul>	Real Real	Taxable Taxable
30	Dock bumpers and seals	Real	Taxable
31	Dock levelers	Real	Taxable

No.	Description	Real or Personal for Sales/Use	Sales & Use Tax Status for IP
32	Docks, ramps (built-in)	Real	Taxable
33	Door operators	Real	Taxable
34	Doors (garage and pass doors) (plastic strips that separate rooms, though not real property, would be taxable.)	Real	Taxable
35	Dryers - processing	Personal	Exempt
36	Ductwork: <ul style="list-style-type: none"> <li>• Building</li> <li>• For IP equipment</li> </ul>	Real Personal	Taxable Exempt
37	Dumbwaiters	Real	Taxable
38	Dust collectors	Personal	T or E *
39	Dust or spray collection equipment for specific IP machines	Personal	Exempt
40	Dynamometer testing cells (bldg function)	Real	Taxable
41	Electrical distribution materials & equipment: <ul style="list-style-type: none"> <li>• Up to last transformer &amp; up to the secondary substation (this does not apply to a manufacturer of electricity.)</li> <li>• Electrical distribution materials &amp; equipment installed after usable power is provided to be used for IP functions</li> </ul>	Real  Personal	Taxable <a href="#">(2)</a>  Exempt <a href="#">(2)</a>
42	Electrical substation enclosures	Real	Taxable
43	Elevators	Real	Taxable
44	Emergency lights	Real	Taxable
45	Enclosures: <ul style="list-style-type: none"> <li>• Building</li> <li>• Freestanding for IP equipment</li> </ul>	Real Personal	Taxable Exempt
46	Energy monitors: <ul style="list-style-type: none"> <li>• General building</li> <li>• For specific IP equipment</li> </ul>	Real Personal	Taxable Exempt
47	Escalators – building	Real	Taxable
48	Exhaust systems: <ul style="list-style-type: none"> <li>• Ducted from IP equipment</li> <li>• Building ventilation</li> </ul>	Personal Real	Exempt Taxable
49	Fans: <ul style="list-style-type: none"> <li>• Freestanding, for employee comfort in IP area</li> <li>• Building ventilation - built-in</li> </ul>	Personal Real	Taxable Taxable

No.	Description	Real or Personal for Sales/Use	Sales & Use Tax Status for IP
50	Fencing	Real	Taxable
51	Fire protection systems: <ul style="list-style-type: none"> <li>• Building sprinklers</li> <li>• Building CO<sub>2</sub>, halon, hi-ex foam systems</li> <li>• CO<sub>2</sub>, halon, hi-ex foam system for equipment only</li> <li>• Supplemental water system to assist bldg.</li> <li>• Supplemental water system for equipment only</li> <li>• Fire extinguisher cabinets, reels, valves</li> <li>• Fire extinguishers (canister or tanks)</li> <li>• Fire escapes</li> </ul>	Real Real Personal Real Personal Real Personal Real	Taxable Taxable Taxable Taxable Exempt Taxable Taxable Taxable
52	Flag poles, in-ground or on building	Real	Taxable
53	Floor finishes: <ul style="list-style-type: none"> <li>• Special coverings (wood block, steel tile)</li> <li>• Standard coverings (carpet, linoleum, tile)</li> </ul>	Real Real	Taxable Taxable
54	Floor grates: <ul style="list-style-type: none"> <li>• Not adjacent to machinery</li> <li>• Adjacent to machinery (both are a function of realty)</li> </ul>	Real Real	Taxable Taxable
55	Flooring, raised or computer room	Personal	Taxable
56	Foundations for specific IP equipment	Personal	Exempt
57	Freezers: <ul style="list-style-type: none"> <li>• Building type construction-walk-in</li> <li>• Portable – freestanding</li> </ul>	Real Personal	Taxable % Based on Use (e.g., In Process Storage)
58	Furnaces: <ul style="list-style-type: none"> <li>• One – new</li> <li>• One – replacement</li> <li>• For IP use – replacement</li> <li>• Multiple</li> </ul>	Real Real Personal R or P*	Taxable Taxable Exempt % Based on Use
59	Gas distributions systems: <ul style="list-style-type: none"> <li>• Gas lines to process system</li> <li>• Gas lines to building systems</li> </ul>	Personal Real	Exempt (2) Taxable

No.	Description	Real or Personal for Sales/Use	Sales & Use Tax Status for IP
60	Gate operators: <ul style="list-style-type: none"> <li>Part of fence - land improvements</li> </ul>	Real	Taxable
61	Generator: <ul style="list-style-type: none"> <li>One which services the facility (bldg function)</li> <li>Used for specific IP machine</li> </ul>	Real Personal	Taxable Exempt
62	Guard rails and posts: <ul style="list-style-type: none"> <li>Protect IP equipment (attached to building)</li> <li>Protect IP equipment (attached to equipment)</li> <li>Protect inventory</li> <li>Roads, parking, building</li> </ul>	Real  Personal Real Real	Taxable  Exempt Taxable Taxable
63	Heaters: <ul style="list-style-type: none"> <li>Unit heaters - hanging</li> <li>Manufacturing process</li> <li>Portable (employee comfort)</li> </ul>	Real Personal Personal	Taxable Exempt Taxable
64	Heating & venting systems (general building type)	Real	Taxable
65	Hoists: <ul style="list-style-type: none"> <li>Built-in</li> <li>Portable</li> </ul>	Real Personal	Taxable % Based on Use
66	Humidifiers: <ul style="list-style-type: none"> <li>Portable, IP functions</li> <li>Built-in</li> </ul>	Personal Real	Exempt Taxable
67	Incinerators	Real	Taxable
68	Insulation & piping in wall for refrigerated rooms	Real	Taxable
69	Kilns, ceramic and lumber: <ul style="list-style-type: none"> <li>Freestanding, for IP functions</li> <li>Built-in</li> </ul>	Personal Real	Exempt Taxable
70	Landfill cells - layers of waste separated from land by an impermeable barrier: <ul style="list-style-type: none"> <li>Piping/horizontal wells (in landfill cells)</li> <li>Tire chips (over piping in landfill cells)</li> </ul>	Personal  Personal	Exempt <a href="#">(3)</a>  Exempt <a href="#">(3)</a>



No.	Description	Real or Personal for Sales/Use	Sales & Use Tax Status for IP
71	Lighting - electrical: <ul style="list-style-type: none"> <li>• General building</li> <li>• Land improvements</li> <li>• Supplemental – building system (fixtures extended down from general building)</li> <li>• Supplemental - equipment (fixtures hard-wired and extended down to a specific IP machine)</li> </ul>	Real Real Real  Personal	Taxable Taxable Taxable  Exempt
72	Lightning arresters	Real	Taxable
73	Loading dock	Real	Taxable
74	Locker room facilities: <ul style="list-style-type: none"> <li>• Plumbing fixtures - showers</li> <li>• Permanent partitions</li> <li>• Toilet partitions</li> <li>• Lockers, freestanding</li> <li>• Lockers, recessed into wall</li> </ul>	Real Real Real Personal Real	Taxable Taxable Taxable Taxable Taxable
75	Office – portable foreman’s	Personal	Taxable
76	Operators, doors & windows	Real	Taxable
77	Parking control systems	Real	Taxable
78	Partitions: <ul style="list-style-type: none"> <li>• Portable, in manufacturing area (bldg function)</li> <li>• Permanently attached</li> </ul>	Personal Real	Taxable Taxable
79	Pipe rack supports	Real	Taxable
80	Piping: <ul style="list-style-type: none"> <li>• From wall to specific IP machinery</li> <li>• Utility piping, gas, water, etc.</li> </ul>	Personal Real	Exempt Taxable
81	Plastic door strips (air guard strips) to separate areas (general building)	Real	Taxable
82	Plumbing: <ul style="list-style-type: none"> <li>• General building</li> <li>• To specific IP equipment</li> </ul>	Real Personal	Taxable Exempt
83	Press pit (machine foundation)	Personal	Exempt
84	Pump houses	Real	Taxable
85	Ramps: <ul style="list-style-type: none"> <li>• Portable</li> <li>• Built-in</li> </ul>	Personal Real	Taxable Taxable

No.	Description	Real or Personal for Sales/Use	Sales & Use Tax Status for IP
86	Rooms within a plant, not a structural part of realty and used for IP functions (includes clean rooms and quality labs, but does not include a foreman's office)	Personal	Exempt (4)
87	Scale houses	Real	Taxable
88	Scales: <ul style="list-style-type: none"> <li>• Portable</li> <li>• Built-in</li> <li>• Truck, built-in</li> </ul>	Personal Real Real	T or E * Taxable Taxable
89	Sheds: <ul style="list-style-type: none"> <li>• Bolted to concrete slab</li> <li>• Portable for storage</li> </ul>	Real Personal	Taxable (5) T or E *
90	Signs: <ul style="list-style-type: none"> <li>• Affixed to building/real property</li> <li>• Integral part of IP equipment</li> <li>• Non-equipment related</li> </ul>	Real Personal Personal	Taxable Exempt Taxable
91	Silo – raw material storage	Real	Taxable (5)
92	Spray booths: <ul style="list-style-type: none"> <li>• Permanently attached to building</li> <li>• Freestanding, for welding, painting, etc.</li> </ul>	Real Personal	Taxable Exempt
93	Stainless steel wall panels for food industry	Real	Taxable
94	Tanks: <ul style="list-style-type: none"> <li>• Portable – in-process storage</li> <li>• Portable – mixing IP material</li> <li>• Portable – raw material storage</li> <li>• Built-in (attached to a building or foundation), raw material and in-process storage</li> </ul>	Personal Personal Personal Real	Exempt Exempt Taxable Taxable
95	Telephone wiring in wall	Real	Taxable
96	Toilet facilities: <ul style="list-style-type: none"> <li>• Plumbing fixtures, showers</li> <li>• Partitions</li> <li>• Portable</li> </ul>	Real Real Personal	Taxable Taxable Taxable
97	Vats for mixing (manufacturing process)	Personal	Exempt
98	Wash fountains and drinking fountains	Real	Taxable
99	Welding booth - portable	Personal	Exempt
100	Wood blocking for floor in press room	Real	Taxable (6)

### **\*Depending on Use**

1. Considered personal property for sales/use tax purposes
2. Per 1979, AC, R 205.90 (Rule 40), *Industrial Processing* and RAB 2000-4, *Sales and Use Tax - Industrial Processing*
3. In *Granger Land Development Company and Granger Waste Management Company v Dep't of Treasury*, 286 Mich App 601 (2009), the court determined that property situated on real estate is not necessarily considered attached to land. In this case, the equipment and materials within the impermeable barrier (cell) were separated from the underlying real property. Therefore, the landfill cell and its contents were not considered to be affixed to the land. Additionally, the court found that the landfill cells were not erected to facilitate the use of the land. Rather, the land was adapted to facilitate the erection of the landfill cells. The lone fact that an article may remain in place indefinitely and beyond its commercial life is not adequate evidence that it is intended to be a permanent accession to the real estate.
4. Rooms within a plant usually represent rooms assembled by portable partitions (panels). The partitions can extend from floor to ceiling and, in most instances, are not bolted to the floor or attached in any other way. The partitions do not support any part of the realty, nor are they weight bearing. The partitions are for interior wall use within the facility. The rooms are used for sanitation purposes or other similar functions related to the processing function.
5. RAB 1990-2, *Sales and Use Taxes - Storage Facilities*
6. Wood blocking usually covers a large area. It absorbs oil and provides a non-slippery surface.

References pertaining to this information can be found in the index under [Chapter 23](#)

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## **Chapter 24 – Reconditioning / Remanufacturing**

A reconditioner/remanufacturer is a company that purchases used products (e.g., engines, carburetors, batteries, furniture), reconditions the product by repairing, re-machining, or reshaping it and sells the reconditioned product.

**Remanufacturing** is an exempt activity under the industrial processing exemption. It is defined as “overhauling, retrofitting, fabricating, or repairing a product or its component parts for ultimate sale at retail.”

Disassembly, inspecting, sorting, cleaning and reassembly are exempt. Disassembly and subsequent reassembly merely to clean are not exempt.

The following examples illustrate this concept:

### **Example 1:**

A company purchases used car hoods, doors and fenders to be sold to automobile body shops. The company **only** cleans these used car parts and then sells them. Would the equipment and supplies consumed in the cleaning of these used car parts qualify for the industrial processing exemption?

### **Answer:**

No. Cleaning of purchased inventory without modifying or repairing does not meet the definition of industrial processing.

### **Example 2:**

A company purchases used car hoods, doors and fenders to be sold to automobile body shops. Not only are the used car parts cleaned, but they are also disassembled, repaired, painted and reassembled. Would the company qualify for industrial processing on all of the equipment and supplies used to restore the used car parts?

### **Answer:**

Yes. All of the equipment and supplies would be exempt for IP. Remanufacturing includes the activities of disassembly and reassembly as well as repairing and painting. In general, IP starts when property is removed from raw material storage to begin processing. Therefore, the washing equipment and supplies would be exempt.

Equipment can be partially taxable depending on its taxable and exempt uses.

References pertaining to this information can be found in the index under [Chapter 24](#)

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## ***Chapter 25 – Refrigeration & Freezers***

Product preservation and storage do not qualify for the industrial processing exemption if they are functions of raw materials or finished goods inventory storage. In-process product preservation and storage are exempt.

Tangible personal property acquired for storing and delivery of ice is taxable.

References pertaining to this information can be found in the index under [Chapter 25](#)

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## **Chapter 26 – Repackaging**

The following examples illustrate the concept of repackaging and the industrial processing treatment of the packaging equipment.

### **Example 1:**

A nail manufacturer places nails in a 2-pound box prior to placing the product in finished goods inventory; the product will ultimately be sold at retail or affixed to real estate located in another state. The product is ultimately purchased at the retail level in this same 2-pound box.

### **Answer:**

The packaging operation of putting the nails in the 2-pound boxes is industrial processing.

### **Example 2:**

The same nail manufacturer contracts with a separate company to package certain types of nails in 2-pound boxes before they are placed in finished goods inventory. Again, the product is purchased at the retail level in the same 2-pound box.

### **Answer:**

This packaging servicer would be entitled to the IP exemption, even if the nail manufacturer provided the 2-pound boxes.

### **Example 3:**

A wholesale distributor of nails inserts the nails into 2-pound boxes prior to placing the product in finished goods inventory; the product will ultimately be sold at retail or affixed to real estate located in another state.

### **Answer:**

The wholesaler would be entitled to the IP exemption on the packaging equipment.

References pertaining to this information can be found in the index under [Chapter 26](#)

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## ***Chapter 27 – Retail Preparation of Food***

Except for alcoholic beverages, the industrial processing exemption excludes tangible personal property used for the preparation of food and beverages by a person for ultimate sale at retail through its own locations.

Therefore, kitchen equipment used in restaurants and similar facilities is not exempt as industrial processing.

Equipment may be taxable or exempt as illustrated in the following examples.

- A wholesale distributor of produce has a banana ripening room that hastens the ripening of bananas. The banana room and equipment, if not considered real property, would qualify for the industrial processing exemption.
- A chain of grocery stores has a produce warehouse used only for distribution to its own stores. The warehouse has a banana ripening room. The banana ripening room and equipment would not qualify for the industrial processing exemption because it is a retailer that is preparing food for ultimate sale through its own retail locations.
- A bakery sells its products to wholesalers in addition to making retail sales at its own location. Property and equipment used to prepare products for sale to the wholesaler are exempt; the property and equipment used to prepare products for sale at its own retail location are taxable. Equipment used for both purposes would have to be allocated.

References pertaining to this information can be found in the index under [Chapter 27](#)

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## **Chapter 28 – Retailers and the Industrial Processing Exemption**

Occasionally, industrial processing may take place in a retail setting, but only applies to the industrial processing of items that are ultimately sold at retail.

Examples of **exempt** activities:

- The local hardware store makes and sells duplicate keys. The key grinder would qualify for the exemption.
- The local auto parts store sells custom hoses that are produced by buying bulk rubber hose and using on-site equipment to pressure fit metal ends onto the rubber hose. The equipment and supplies would qualify for the industrial processing exemption.
- A local jewelry store makes custom jewelry it sells at retail in its own store. The equipment/tools/supplies used would qualify for the industrial processing exemption.
- The local optician buys eyeglass frames and uncut lenses. The lenses are ground to fit the frames and are ultimately sold at retail. The equipment/tools/supplies used to grind the lens and insert them into the frames qualify for the industrial processing exemption.
- The local paint or hardware store customizes paint colors for its customers. The paint mixing machines would qualify for the industrial processing exemption.
- The local trophy store uses engraving machines to engrave trophies prior to the time of sale. The machines used to engrave the trophies would qualify for the industrial processing exemption.
- Used vehicle/heavy equipment dealers recondition the vehicles/heavy equipment prior to selling their products. The tools, equipment and utilities used for this portion of their business operation are exempt to the extent the items are used to repair and recondition the items prior to sale. This includes automobiles, farm equipment, snowmobiles, ATVs and boats.
- Tools, supplies and equipment used by dental labs to make dentures prescribed by a dentist qualify for the industrial processing exemption



Examples of some **taxable** equipment and activities:

- A lumberyard cuts a sheet of plywood to a size requested by its customer. No exemption is allowed for the cutting equipment because the lumberyard is cutting the plywood to size for its customer. If the customer is charged for this service, it would be part of the gross proceeds subject to sales tax. If the lumberyard was cutting plywood on a repeated basis and putting it into inventory for subsequent sale, the lumberyard would be entitled to the IP exemption for the saw on a prorated basis.
- A steel wholesaler used a saw to cut a special order for a specific customer. No other processing functions were done to the steel such as boring or grooving. The saw is 100% taxable. Banding the cut steel would not make the saw exempt. If the saw was used to cut inventory to stockpile for future sales in addition to special orders, the exemption would be prorated.
- Coin operated coffee and soft drink vending machines

References pertaining to this information can be found in the index under [Chapter 28](#)

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## **Chapter 29 – Scrap Dealers & Recyclers**

A variety of factors determine whether equipment used for managing or processing scrap material is exempt for industrial processing. The following equipment (or areas when conducting a utility study) is generally treated as outlined below.

### **Roll-offs (Dumpsters)**

- A scrap dealer places its roll-offs on the site of an industrial processor. The industrial processor stores its production waste in these containers for removal by the scrap dealer.

**Tax Treatment:** These containers are taxable to the scrap dealer. The purpose for the scrap dealer is receiving, collection, and transportation of raw materials prior to be placed in raw materials storage. It is taxable to the industrial processor because processing of scrap is not exempt after it has come to rest in storage for removal from the plant of origin.

- A recycler has roll-offs at its location to receive recyclable materials (plastic bottles, aluminum cans, newspapers, etc.). Individuals trying to conserve resources place their recyclable materials into these containers.

**Tax Treatment:** These containers are taxable to the recycler. The purpose for the recycler is receipt and storage of raw materials.

### **Hoppers**

- A scrap dealer provides self-dumping portable hoppers to an industrial processor to aid in its movement of production scrap. Scrap from the line is put into these hoppers and subsequently transported to the dumpsters for removal from the plant site.

**Tax Treatment:** Containers used to accumulate production waste are exempt if they are not the final container used to store production waste for removal from the plant. Use of the container in processing (not ownership) determines the exemption.

### **Freon Recovery Machines**

- These machines extract cooling gases from air conditioners, freezers, etc., before the actual shredding of the appliance. These gases are then usually sold.

**Tax Treatment:** The recovery equipment is exempt as industrial processing. Recycling of used materials for ultimate sale at retail is a valid industrial processing activity.

### ***Loading and Unloading Equipment***

**Tax Treatment:** Loading and unloading equipment is exempt if it is moving in-process materials within a plant site or between plant sites operated by the same person.

### ***Sorting Equipment Such as Cranes, Loaders, and Lift Trucks***

**Tax Treatment:** Sorting equipment is exempt if it is removing materials from raw material storage, or at any point after processing has begun. For example, the trash heap located at the recycler's site is considered the recycler's raw materials; therefore, its sorting equipment is exempt. However, sorting equipment used after the materials have come to rest in finished goods inventory is taxable on an apportioned basis if it is also used for an exempt purpose.

### ***Equipment Used to Cut, Break, and Crush (After Disassembly)***

**Tax Treatment:** Recycling equipment used in industrial processing is exempt if the recycled materials will eventually be sold at retail. Conveyers connected to this type of machinery are also exempt unless they are used to receive raw materials.

### ***Paper Shredding Equipment***

**Tax Treatment:** This type of equipment is exempt for IP if the shredded property is eventually sold at retail.

### ***Banding and Baling Equipment***

**Tax Treatment:** If the banding and baling process takes place prior to the product coming to rest in finished goods inventory storage, the equipment is exempt. However, if this process takes place after removal from finished goods inventories it is taxable.

References pertaining to this information can be found in the index under [Chapter 29](#)

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## **Chapter 30 – Servicers**

There are two basic types of servicers; those that act as industrial processors and those that do not. The servicers that act as industrial processors (heat treating, plating, machinery repair, engineering and design, CAD/CAM, etc.) are allowed the industrial processing exemption as it pertains to their operations. Servicers that do not act as an industrial processor (landscapers, exterminators, security guards, etc.) do not qualify for the industrial processing exemption.

Servicers are eligible for the industrial processing exemption for equipment, tools and supplies used in a repair or service activity when providing the service or repair to an industrial processor if the property being repaired or serviced qualifies for the industrial processing exemption.

This exemption would include tools, equipment and supplies used by a repair company on exempt machinery or equipment used by a manufacturer.

### **Example 1:**

An electrical contractor repairing controls or wiring of a piece of industrial processing equipment is eligible for the exemption for tangible personal property used in making the repair. Material consumed by the same contractor in repairing the shipping office air conditioning unit would be taxable.

### **Example 2:**

A mechanical contractor repairing the chillers for an injection molding machine can claim an industrial processing exemption on the material it consumes in making the repair. Material consumed by that same repairer in servicing the HVAC unit for the plant would be taxable.

References pertaining to this information can be found in the index under [Chapter 30](#)

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## **Chapter 31 –Storage Tanks and Mixing Tanks**

All storage is taxable except for in-process storage. If a storage tank or mixing tank is determined to be real property rather than tangible personal property, it is taxable and is not eligible for the industrial processing exemption. Buried or built-in tanks are real property. See the “Real vs. Personal Property” section of this text.

Storage tanks that store in-process materials are exempt. Storage tanks that store raw materials or finished products are taxable.

### **Gas Cylinders**

Steel cylinders used only to distribute gas (there is no mixing system inside the tank) are taxable because no industrial processing occurs inside the tanks. However, the tanks can be purchased tax-free for leasing purposes if the tanks are rented and the lessor elects to pay use tax on its rental stream rather than sales tax upon the initial purchase. An industrial processor can make a claim of exemption for IP on the rental charge gas, but the charge for the cylinder is taxable.

Tanks with a mixing system inside used to mix different gases uniformly and remix the gas when released are exempt as industrial processing.

Portable tanks to store gas used to repair exempt equipment are exempt.

Mixing silos and bins where actual mixing occurs are eligible for the industrial processing exemption.

References pertaining to this information can be found in the index under [Chapter 31](#)

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## **Chapter 32 – Stores Accounts (Non-Production Inventory)**

Some companies purchase non-production inventory or non-inventory items tax free that have an account classification as **stores** or **general supplies**. The end use of these items usually is not known until the item is withdrawn from “stores.” The taxpayer incurs use tax on taxable items at the time of withdrawal.

Items that may be included in a stores account include small tools, screws/fasteners, belts, maintenance supplies, janitorial supplies, etc. The taxability of these items is determined when they are withdrawn from stores (requisitioned). At that point the expense is booked to an expense account within a specific department or cost center. It is at this point that use tax would be due based on the use of the item.

The area where these items are stored is taxable. It is not considered in-process storage. Utilities, shelving, equipment (including automatic retrieval systems) and supplies used in this area are taxable regardless of the tax status of items withdrawn from **stores**.

Some manufacturers have outsourced the stores activity to a third party. This does not change the taxability of the items or of any storage of the items on the manufacturer’s premises. Use tax would be due on the cost of withdrawals used in a taxable manner. The area used for storage at any site (manufacturer or outsourced suppliers location) does not qualify for exemption on the storage or utilities used.

***Taxability of Items – When Used in Exempt Production Areas – No Shipping, Receiving, etc.***

Table 4.

<b>Item</b>	<b>Description of Item</b>	<b>Tax Status</b>
1.	Air make-up unit:	Taxable
	<ul style="list-style-type: none"> <li>• One unit for general heating/cooling/ventilation purposes</li> <li>• To exhaust production fumes</li> </ul>	Exempt
2.	Aspirin or salt tablets	Taxable
3.	Automatic spooling devices, even though they help eliminate carpal tunnel	Exempt
4.	Ballast for overhead lighting fixtures	Taxable
5.	Bins used to collect raw materials packaging scrap next to production line	Exempt
6.	Blueprint storage cabinet	Taxable
7.	Books or manuals:	Exempt
	<ul style="list-style-type: none"> <li>• Containing data detailing formulas, etc. for specific production requirements</li> <li>• Containing general engineering, quality control, etc. information for engineering, production, &amp; quality control</li> </ul>	Taxable
8.	Brochures and posters – OSHA mandated “safety in the workplace” brochures and posters	Taxable
9.	Broom and mops for cleaning floors	Taxable
10.	Cameras & film:	Exempt
	<ul style="list-style-type: none"> <li>• Used in R&amp;D to film product or on production line to film parts</li> <li>• For security or personnel use</li> </ul>	Taxable
11.	Catwalks or platforms around IP machines (attached to machine or bolted to floor)	Exempt
12.	Cleaners and degreasers used to clean IP equipment	Exempt
13.	Cleaning tissue for safety glasses	Taxable
14.	Computer used to monitor production control	Exempt
15.	Computer and software used in engineering department for administrative purposes	Taxable
16.	Containers for the storage of work-in-process materials	Exempt
17.	Copy machine:	Exempt
	<ul style="list-style-type: none"> <li>• Used in engineering for development of product</li> <li>• Used to exclusively reproduce drafting documents</li> </ul>	Exempt

Item	Description of Item	Tax Status
18.	Coveralls, uniforms, aprons, etc.: <ul style="list-style-type: none"> <li>For general attire purposes</li> <li>To protect employee clothing</li> <li>For sanitation purposes in food processing plants</li> <li>Protective clothing that enables an employee to perform a specific exempt job (welding)</li> </ul>	Taxable Taxable Exempt Exempt
19.	Desk, chair, modular furniture: <ul style="list-style-type: none"> <li>In engineering department</li> <li>Holding a computer used for IP</li> </ul>	Taxable Taxable
20.	Dust or fume respirator used in paint booth or for machine repair	Exempt
21.	Prewritten computer software for communications between production departments or between supplier or customer and manufacturer	Taxable
22.	Ear plugs, hearing protection devices	Exempt
23.	Emergency back-up generator: <ul style="list-style-type: none"> <li>For general building</li> <li>For specific IP machinery</li> </ul>	Taxable Exempt
24.	Eye wash and hand washing stations	Taxable
25.	Fans: <ul style="list-style-type: none"> <li>Portable units</li> <li>Ceiling</li> </ul>	Taxable Taxable
26.	Fax machine used to transmit production run documents between areas	Taxable
27.	Fingertip pads	Exempt
28.	Fire extinguishers and fire hoses: <ul style="list-style-type: none"> <li>Attached to the wall or portable</li> <li>Attached to production machine</li> </ul>	Taxable Exempt
29.	First aid and plant hospital supplies and equipment (bandages, ointments, defibrillators, etc.),	Taxable
30.	Flashlights used by production equipment service workers	Exempt
31.	Floor markings (paint or tape)	Taxable
32.	Floor oil absorbent (oil dry): <ul style="list-style-type: none"> <li>For cleaning floors</li> <li>For spills on floor around specific IP machines</li> <li>Placed in a container on or under a machine to catch oil that spills from the machine</li> </ul>	Taxable Taxable Exempt
33.	Floor sweeper to clean around machines, clean aisle ways and building	Taxable
34.	Foreman's desk, chair, file cabinet, etc.	Taxable
35.	Forms: <ul style="list-style-type: none"> <li>For scheduling employees' hours</li> <li>For cost control purposes</li> <li>For scheduling production runs</li> </ul>	Taxable Taxable Exempt



Item	Description of Item	Tax Status
36.	Clothing, gloves, boots, etc.: <ul style="list-style-type: none"> <li>Used by truck drivers</li> <li>Warehouse and administrative personnel</li> </ul>	Taxable Taxable
37.	Golf cart (used as a personnel carrier)	Taxable
38.	Guard rail: <ul style="list-style-type: none"> <li>Around IP machine</li> <li>Attached to IP machine as part of the original purchase</li> </ul>	Taxable Exempt
39.	Hair nets (for sanitation purposes) in food processing plants	Exempt
40.	Hand soap or cream	Taxable
41.	Hard hat or helmets: <ul style="list-style-type: none"> <li>Worn by assembly line workers</li> <li>Worn by warehouse and construction personnel</li> </ul>	Exempt Taxable
42.	Headbands or sweatbands: <ul style="list-style-type: none"> <li>Worn by assembly line workers (product integrity not in jeopardy), non-food industry</li> <li>Worn by assembly line workers – food industry</li> </ul>	Taxable Exempt
43.	Height - adjustable platforms	Exempt
44.	Lab coats worn by quality control lab technicians (protects clothes)	Taxable
45.	Ladder for production machinery repair	Exempt
46.	Light fixtures attached to the ceiling	Taxable
47.	Lights (fluorescent lamps) for ceiling fixtures for specific IP functions (not affixed to real estate)	Exempt
48.	Literature (promotional) and parts order forms that go with the product	Taxable
49.	Loudspeaker systems	Taxable
50.	Manuals for operating the taxpayer's new press (purchased separately, not replacement manuals)	Taxable
51.	Printed material - installation or assembly instructions that go with the product, including parts list, operating manuals and safety brochures	Exempt
52.	Printed materials-bills of lading, packing slips, product surveys, advertising brochures, product catalogs, etc. whether they accompany the product or not	Taxable
53.	Rags (cloth or paper towel): <ul style="list-style-type: none"> <li>For removing oil from production machinery</li> <li>To rid oil from workers' hands (product integrity not in jeopardy)</li> </ul>	Exempt Taxable
54.	Safety glasses purchased by the industrial processor: <ul style="list-style-type: none"> <li>Nonprescription for production employees</li> <li>Nonprescription for visitors</li> </ul>	Exempt Taxable
55.	Safety shoes: <ul style="list-style-type: none"> <li>Only worn in IP area (provided by employer)</li> </ul>	Exempt

Item	Description of Item	Tax Status
56.	Shelving: <ul style="list-style-type: none"> <li>For the tool crib or stores location</li> <li>In quality control department to store raw materials</li> </ul>	Taxable Taxable
57.	Shrink wrap material (used before goods come to rest in finished goods inventory)	Exempt
58.	Signs: <ul style="list-style-type: none"> <li>OSHA-required signs attached to production machinery when not part of the original purchase</li> <li>OSHA-required signs, posters, etc., attached to the wall</li> </ul>	Taxable Taxable
59.	Space heaters, fans, portable air conditioners	Taxable
60.	Stool (for the employee to sit at while operating production equipment)	Taxable
61.	Table next to machine to hold tools for making machine adjustments	Exempt
62.	Tags: <ul style="list-style-type: none"> <li>(ok to use) in quality control</li> <li>To indicate the performance of a quality control function</li> <li>To check off production steps in the plant</li> <li>For raw material or finished goods inventory purposes</li> </ul>	Exempt Exempt Exempt Taxable
63.	Tanks: <ul style="list-style-type: none"> <li>Soft drink mix canisters</li> <li>Cylinders to distribute gases</li> <li>Propane with a mixing system to mix gases</li> </ul>	Taxable Taxable Exempt
64.	Telephones and 2-way radios: <ul style="list-style-type: none"> <li>At printing facility, used solely to instruct personnel of machinery to immediately start or stop production</li> <li>Used for communication between various production departments</li> </ul>	Taxable Taxable
65.	Tool and die racks: <ul style="list-style-type: none"> <li>Attached to a machine</li> <li>In a separate storage area</li> <li>Mounted on a wall</li> <li>Next to a machine</li> </ul>	Exempt Taxable Taxable Taxable
66.	Portable tool boxes/pouches (for production machine repair workers)	Exempt
67.	Tools <ul style="list-style-type: none"> <li>Purchased by the manufacturer to perform IP functions</li> <li>Purchased by employees to perform IP functions for or on behalf of an industrial processor</li> </ul>	Exempt Exempt
68.	Trade books or reference material - for engineering or other production departments	Taxable
69.	Training materials whether printed, computer software downloaded, textbooks, classroom supplies	Taxable

Item	Description of Item	Tax Status
70.	TV, VCR, VCR tapes, cameras, software, film, DVD's, etc.: <ul style="list-style-type: none"> <li>• Used for security or training, audio visual equipment and supplies</li> <li>• Used to view product design, R&amp;D</li> </ul>	Taxable Exempt
71.	Warranty statements that go with the manufactured product	Exempt
72.	Warranty registration certificate to be returned to the manufacturer	Taxable
73.	Waste bins: <ul style="list-style-type: none"> <li>• For production scrap</li> <li>• For collection of paper to be shredded/recycled, owned by manufacturer</li> </ul>	Exempt Taxable
74.	Wrist brace: <ul style="list-style-type: none"> <li>• To assist in lifting heavy production materials</li> <li>• To prevent carpal tunnel</li> </ul>	Exempt Taxable

References pertaining to this information can be found in the index under [Chapter 32](#)

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## **Chapter 33 – Taxidermists**

Taxidermists mount or reproduce dead animals for display (e.g., as hunting trophies) or study. A taxidermist removes the skin to be tanned and treated for later use. A mannequin is molded from plaster or clay using the remaining muscle fibers and bones, measured and posed, or purchased in stock form. Glass eyes are added, along with artificial teeth, feet, etc. depending on the subject's original condition. The remaining carcass is discarded.

A taxidermist converts or conditions tangible personal property for ultimate sale at retail and therefore qualifies for exemption as an industrial processor on purchases of tangible personal property used or consumed in the process of mounting or reproducing their product.

Sales of a taxidermist's finished products are retail sales and subject to sales tax, unless specifically exempted.

References pertaining to this information can be found in the index under [Chapter 33](#)

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## **Chapter 34 – Utilities**

Manufacturers primarily use the following types of utilities:

- Electricity
- Gas
- Steam
- Propane

Electricity, gas, steam and propane used in non-industrial processing functions are taxable. Electricity, gas, steam, and propane used in industrial processing functions or to operate industrial processing equipment/machinery are exempt. A lessor may claim partial exemption from the utility company for the portion of the utilities used by a lessee industrial processor to perform industrial processing functions.

### ***Heating and Cooling***

Electricity, gas, steam, or propane used for heating and cooling is generally taxable; however, utilities used to heat or light areas while industrial processing is occurring are exempt. Consumption of a by-product of an industrial processing function (e.g., excess heat from an exempt IP operation that is used to heat office space) is not taxable. However, if tangible personal property (e.g., steam tunnels, heat ducts, blowers, etc.) is used to facilitate the use of the by-product, such materials would be taxable.

### ***Idle Time***

The industrial processing exemption for eligible property is limited to the extent that the property is used for a valid industrial processing activity. Utilities consumed by industrial processing machinery and equipment are only exempt when the machinery and equipment are performing functions that meet the industrial processing exemption. Similarly, general lighting and heating of processing areas is only exempt when industrial processing is occurring. Sometimes a manufacturer will reduce operating hours or have shifts that the plant is not operating, resulting in idle time. “Idle” as defined by the Merriam-Webster Dictionary means “not working, active, or being used.”

In contrast, maintenance and repairs of machinery and equipment used for exempt IP purposes are exempt functions. RAB 2000-4(v) states that materials used in the repairs and maintenance of exempt machinery and equipment qualify for the industrial processing exemption. Therefore, utilities consumed in the repairs and maintenance of exempt equipment and machinery and utilities used to heat and light the area while repairs are in progress are exempt.

**Example 1:**

ABC Inc. manufactures widgets. When demand for widgets decreases, ABC cuts one of its shifts. The plant is idle at all times during the cut shift.

**Answer:**

Utilities consumed by the exempt equipment and machinery during idle time are taxable because they are not being used in industrial processing. Utilities used in heating/cooling and lighting the production area are also taxable when industrial processing activity is not occurring.

**Example 2:**

ABC Inc. manufactures custom boats. ABC's manufacturing facility has the capacity to manufacture 4 boats at one time. However, business slows, and ABC is only producing 2 boats at a time, leaving two bays of its facility unused for any purpose.

**Answer:**

The utilities used for heating/cooling and lighting the vacant bays are not eligible for the industrial processing exemption because these bays are no longer used for industrial processing.

**Example 3:**

ABC Inc. manufactures automobile parts and operates several production lines. Periodically, ABC will shut one line down to conduct routine maintenance on the machinery. These temporary shut-downs generally last for about one week.

**Answer:**

Utilities consumed by the exempt equipment and machinery that is part of the line undergoing maintenance are still exempt. The utilities used to heat/cool and light the area where the line is located will be exempt while maintenance and repair activities are occurring, as repair of equipment and machinery qualifies as industrial processing.

**Example 4:**

ABC Inc. manufactures a variety of very popular widgets and must increase its manufacturing capacity. To accomplish this, production is reduced to a single line for two weeks while new machinery is installed, old machinery is replaced, and lines are re-configured throughout the production area.

**Answer:**

The utilities consumed by the exempt equipment and machinery remain exempt during the installation, replacement, and re-configuration process. Similarly, the utilities used to heat/cool and light the production area are exempt while these activities take place because installing and moving exempt machinery and equipment qualifies as industrial processing.

**Example 5:**

ABC Inc. manufactures custom boats. Since business tends to be slow during the winter and the employees want to enjoy the holidays, the manufacturing facility is closed for two weeks at the end of December.

**Answer:**

Utilities consumed by equipment and machinery and for heating/cooling and lighting during the plant closure will be taxable. During this time, industrial processing is not occurring. Therefore, no exemption is available.

**Example 6:**

XYZ Manufacturing is an aluminum extrusion company that uses natural gas in its process. The company utilizes residual heat in its production areas and does not have HVAC ductwork in the facility. The extrusion equipment remains on at all times unless maintenance or repair requires that it be shut down. The extrusion equipment must maintain a production-ready temperature including when no production activity is taking place.

**Answer:**

Utilities consumed by manufacturing equipment and machinery are exempt while the equipment and machinery are being used for exempt purposes. Utilities used to heat/cool and light the area where the machinery is located are also exempt during the time in which the machines are engaged in an exempt function. Maintenance of industrial processing equipment qualifies as an exempt function. The necessity of sustaining a production ready temperature constitutes maintenance of the equipment and qualifies as industrial processing. Therefore, utilities used to sustain this temperature are exempt. Residual heat generated as a by-product of this exempt use would be exempt as well.

## Taxability of Areas for Utility Studies

Table 5.

No.	Description Of Area	Tax Status
1	Administrative Areas	Taxable
2	Aisles: <ul style="list-style-type: none"> <li>Between a Taxable Area and an Exempt Area</li> <li>Between Exempt Areas</li> <li>Between Taxable Areas</li> </ul>	% Based on Square Footage Exempt Taxable
3	Boiler Room Areas <ul style="list-style-type: none"> <li>One Boiler</li> <li>Multiple Boilers (Referring to Area)</li> </ul>	% Based on Use
4	Die Storage Areas	Taxable
5	Engineering Areas	Exempt
6	Foreman's Office	Taxable
7	Inspection Supervisor's Office	Taxable
8	Machine Shop Repair Area (Exempt Machines)	Exempt
9	Market Research Areas	Taxable
10	Production Areas During Periods of New Machine Installation or Machine Repair	Exempt
11	Production Areas: <ul style="list-style-type: none"> <li>During Reconfiguration of Production Lines</li> <li>During Plant Vacation Closure Periods</li> <li>During Machine Removal for Conversion to Non-Production Use</li> </ul>	Exempt Taxable Taxable
12	Production Areas During Production Period	Exempt
13	Production Areas During Shifts with No Production	Taxable
14	Purchasing Department Areas	Taxable
15	Quality Control Areas: <ul style="list-style-type: none"> <li>In Production Area</li> <li>In Receiving Area</li> </ul>	Exempt Taxable
16	Receiving Areas for Raw Materials	Taxable
17	Research and Development Areas	Exempt
18	Restrooms	Taxable
19	Shipping Areas	Taxable
20	"Stores" Areas	Taxable
21	Tool Crib Areas	Taxable
22	Vending Areas, Breakrooms, Lunchrooms	Taxable
23	Warehouse Areas/Non-Production	Taxable

References pertaining to this information can be found in the index under [Chapter 34](#)



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## ***Chapter 35 – Waste Removal / Pollution Control Facilities***

Industrial processing includes the processing of production scrap and waste up to the point it is stored for removal from the plant of origin.

The plant of origin includes a contiguous manufacturing complex. It does not include facilities in separate locations. For example, an entire manufacturing complex, including numerous buildings on the same site, is a plant of origin, but separate buildings located on different sites are separate locations, even though they are part of the same company and/or division.

### ***Piping of Waste to another Location***

The same analysis described above would apply to production waste which may be piped to another location. If the waste is piped to a different location or industrial complex for treatment or removal, the exemption would not apply to the piping after it has left the plant of origin. However, if it is piped to another location for further processing prior to being placed in finished goods inventory it is exempt. Piping to a contiguous location (such as across the street) would meet the plant of origin exemption requirement.

Production scrap and/or waste can include:

- Material spoilage
- Damaged material
- Chips
- Shavings
- Sludge
- Residue
- Dust
- Sand
- Grit
- Fly
- Ash

- Slag
- It would also include the containers (e.g., cardboard boxes, plastic bags, drums) that held processing materials.

Examples of production waste include:

- Cardboard boxes discarded after the removal of production parts in the raw materials inventory area
- Cardboard boxes discarded after the removal of production parts in the production area
- Materials that are scrapped because they do not pass final inspection, as long as they have not already been placed in finished goods inventory

The exemption would be allowable for machinery, equipment and parts used to collect and move the production waste to where it is stored for final removal from the plant of origin. This includes:

- The initial collection point
- Any movement to the final resting point prior to removal
- Any processing for further use
- Any processing for sale to another if performed by a servicer or industrial processor

**Example:**

The cardboard boxes discarded after the removal of production parts either in the raw materials inventory area or the production area are collected in a bin. A forklift moves the bin to the back of the plant. The collection bin is dumped into a cardboard compactor and compacted. The exemption is allowed up to the point that the compacted cardboard is stored for removal from the plant. This would include an exemption for the compactor.

Shipping costs to dispose of production waste materials off site would not qualify for the exemption whether incurred by the industrial processor or servicer.

The exemption would not be available to a servicer providing the waste disposal service for the industrial processor, when their activity is hauling the waste. See the “Servicers” section of this text.

Some items may be considered by-products of the industrial process. When by-products are sold, equipment and supplies used during shipment is taxable.

Disposal of non-production scrap and waste is not eligible for the exemption. Non-production waste would include the disposal of accounting or sales records, old production reports, and general housekeeping.

The cost of the equipment, materials, supplies and utilities used to neutralize or treat waste materials and/or water prior to their disposal are exempt up to the point it is stored for removal from the plant of origin. If the waste is not removed from the plant of origin, but disposed of on site, the exemption extends to that point of disposal. Some examples are:

- A heat treat company purchases chemicals to neutralize water contaminated in the heat treating process. The cost of the equipment, supplies and utilities qualify for the industrial processing exemption.
- A metal plating company neutralizes production chemicals and scrap at the plant of origin prior to disposal **off site**. The cost of equipment and supplies to analyze and neutralize the liquid and solid waste is not subject to tax up to the point it is stored for removal from the plant site. This activity (to analyze and neutralize) is also exempt for a servicer if performed at the manufacturer's plant of origin.
- A metal plating company neutralizes production chemicals and scrap at the plant of origin prior to disposal **on site**. The cost to process the liquid and solid waste is not subject to tax. This activity is also exempt for a servicer if performed at the manufacturer's plant of origin.

If, in the above metal plating example, the analyzing and neutralizing is not done at the plant of origin, the cost of the equipment and supplies used would be taxable to whoever performs the service at the offsite location because they have been removed from the plant of origin.

### ***Air and Water Pollution Controls***

Pollution problems have resulted in the acquisition of elaborate facilities to dispose of various wastes. The GSTA and UTA exempt tangible personal property that becomes part of a qualifying air or water pollution control facility, regardless of whether it is tangible personal property that may be exempt for industrial processing or real property. These facilities are exempt if the taxpayer obtains the proper pollution control certificate through the State Tax Commission.

**CAUTION:** The air and water pollution control certificates issued by the State Tax Commission have an itemization of applicable equipment and a stated dollar amount being exempted. The final cost of material in the pollution control facility may exceed this amount. Amounts exceeding this limitation are subject to tax. Replacement equipment and repair parts acquired in subsequent years may be taxable items if their additional costs would cause the project to exceed the stated exempt value in the original exemption certificate. The utility costs associated with the operation of these facilities **do not** qualify for the exemption given to the facilities and would be included as taxable usage for utility studies.

### ***Environmental Clean Up***

Tangible personal property purchased by or sold to an industrial processor and used to clean up toxic spills or other environmental contaminants may qualify for exemption under the waste removal provisions of MCL 205.54t(3)(h). If the clean-up is required due to contamination by in-process materials or supplies, then the exemption would apply. The exemption would not apply if the contamination is caused by raw materials or finished goods generating the need for the environmental clean-up.

Many items are purchased by industry to protect the environment from potential environmental hazards. Purchases used for this purpose are taxable. For example, a pit liner used for a containment area by an oil producing company to protect ground water in the event of an oil spill would be taxable.

The exemption would not apply to equipment used by a servicer doing the environmental clean-up for the industrial processor.

References pertaining to this information can be found in the index under [Chapter 35](#)

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## ***Index of References***

### **Chapter 1 – Introduction and Overview:**

- MCL 205.54t
- MCL 205.54y
- MCL 205.94o
- MCL 205.94(1)(o)
- MCL 205.54r
- RAB 2000-4, *Sales and Use Tax - Industrial Processing*
- 1979 AC R 205.90 (Rule 40), *Industrial Processing*
- *Elias Bros Restaurants v Treasury Dep't*, 452 Mich 144 (1996)
- *Total Foundations, LLC v Dep't of Treasury*, No. 322983, 2016 WL 1125726 (Mich Ct App, March 22, 2016)
- *Detroit Edison Co v Dep't of Treasury*, 498 Mich 28 (2015)
- *Tomra of North America, Inc v Dep't of Treasury*, , \_\_\_ Mich App \_\_\_ (Docket Nos. 336871 and 337663), July 17, 2018

### **Chapter 2 – Activities of Processors that May Not Qualify for Exemption:**

- MCL 205.94o(6)(c)
- MCL 205.93a(1)(f) and (g)
- 1979 AC R 205.109 (Rule 59), *Photographers and Photo Finishers*
- 1979 AC R 205.119 (Rule 69), *Sign Painting*
- 1979 AC R 205.130 (Rule 80), *Tire Retreading and Vulcanizing*
- RAB 2016-24, *Use Tax Base of Tangible Personal Property Affixed to Real Estate by a Manufacturer/Contractor of Other Contractor*

### **Chapter 3 – Industrial Processing Beginning and End:**

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- MCL 205.94o(7)(a)
- 1979 AC R 205.90 (Rule 40), *Industrial Processing*
- *Detroit Edison Co v Dep't of Treasury*, 498 Mich 28 (2015)
- *Tomra of North America, Inc v Dep't of Treasury*, \_\_\_ Mich App \_\_\_ (Docket Nos. 336871 and 337663), July 17, 2018.

### **Chapter 4 – Cement Trucks:**

- MCL 205.54t(5)(g)
- MCL 205.94o(5)(g)

## **Chapter 5 – Computer Software Manufacturing:**

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- MCL 205.94o(1)(d)(vi)
- MCL 205.54t(5)(k)
- MCL 205.94o(5)(k)
- MCL 205.54d(g)
- RAB 1999-5, *Sales and Use Taxation of Computer Software*
- RAB 2000-4, *Sales and Use Tax - Industrial Processing*, Conclusion VII (6)

## **Chapter 6 – Computer Studies:**

- See “Computers Used in Industrial Processing by Servicers” section of this text

## **Chapter 7 – Computers Used in Industrial Processing by Servicers:**

- MCL 205.54t(1)(d)
- MCL 205.94o(1)(d)
- 1979 AC R 205.90 (Rule 40), *Industrial Processing*
- 1979 AC R 205.117 (Rule 67), *Repairs and Servicers*
- RAB 1999-5, *Sales and Use Taxation of Computer Software*
- RAB 2000-4, *Sales and Use Tax - Industrial Processing*

## **Chapter 8 – Delivery – Just in Time:**

- None

## **Chapter 9 – Direct Pay:**

- MCL 205.54a(1)(n)
- MCL 205.98
- RAB 2000-3, *Sales and Use Tax Direct Payment Requirements*
- Notice to Taxpayer with Direct Pay Authorization and Non-Profit Entities Claiming Exemption for Sales or Use Tax

## **Chapter 10 – Electrical Distribution Systems:**

- MCL 205.54t(5)(a)
- RAB 2000-4, *Sales and Use Tax – Industrial Processing*, VI (1) Examples 26 & 27
- RAB 2018-4, *Sales and Use Tax – Apportionment of the Industrial Processing Exemption for Electric and Gas Providers*
- 1979 AC R 205.90(3)(a) (Rule 40), *Industrial Processing*
- *Detroit Edison Co v Dep't of Treasury*, 498 Mich 28 (2015)

### **Chapter 11 – Grain Elevators:**

- LR 86-10, Refund Claim- Exempt Fuel Energy Purchases

### **Chapter 12 – Inventory Withdrawals/Consumed Goods:**

- MCL 205.94
- 1979 AC R 205.90 (Rule 40), *Industrial Processing*
- 1979 AC R 205.112 (Rule 62), *Premiums and Gifts*
- LR 73-7, Reciprocity

### **Chapter 13 – Material Handling:**

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- MCL 205.94(y)(vi)
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### **Chapter 14 – Miscellaneous:**

- MCL 205.54t(7)(a)
- MCL 205.94o(7)(a)

### **Chapter 15 – Packaging Equipment:**

- MCL 205.54t(7)(a)
- MCL 205.94o(7)(a)
- 1979 AC R 205.90(6)(b) (Rule 40), *Industrial Processing*

### **Chapter 16 – Packaging Function:**

- MCL 205.54t(7)(a)
- MCL 205.94o(7)(a)

### **Chapter 17 – Packaging Materials:**

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- RAB 2000-4, *Sales and Use Tax - Industrial Processing*, Conclusion VI (10)
- LR 86-13, *Returnable Drum Containers*
- LR 82-3, *Shipping Containers*
- MCL 205.54t(7)(a)
- MCL 205.94o(7)(a)

### **Chapter 18 – Percentage Application:**

- MCL 205.54t(2)
- MCL 205.94o(2)
- 1979 AC R 205.90 (Rule 40), *Industrial Processing*
- RAB 2000-4, *Sales and Use Tax – Industrial Processing*
- RAB 2018-4, *Sales and Use Tax - Apportionment of the Industrial Processing Exemption for Electric and Gas Providers*

#### **Chapter 19 – Policy (or Goodwill) Adjustment:**

- None

#### **Chapter 20 – Printers:**

- MCL 205.94o
- 1979 AC R 205.113 (Rule 63), *Printers, Lithographers, Photostaters, Typographers, and Blueprinters*
- 1979 AC R 205.90(3)(b) (Rule 40), *Industrial Processing*
- RAB 1988-33, *Sales and Use Tax - Newspaper Supplements*
- LR 80-6, *Newspapers, Magazines, & Other Publications*

#### **Chapter 21 – Prototypes:**

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- MCL 205.94o(7)(c)
- RAB 2000-4, *Sales and Use Tax - Industrial Processing, Conclusion III (2)*

#### **Chapter 22 – Quality Control/Research or Experimental/Engineering:**

- MCL 205.54t(3)(b-d)
- MCL 205.94o(3)(b-d)
- 1979 AC R 205.90(5)(b) (Rule 40), *Industrial Processing*

#### **Chapter 23 – Real vs Personal Property:**

- MCL 205.92(b)
- MCL 205.92(q)
- MCL 205.93a(1)(f)-(g)
- MCL 205.94(1)(z)
- MCL 205.93a(5)(m)
- MCL 205.93a(5)(l)
- MCL 205.93a(5)(g)
- MCL 205.54t(5)
- MCL 205.94o(5)
- RAB 2016-24
- RAB 2000-4



- *Total Foundations, LLC v Dep't of Treasury*, No. 322983, 2016 WL 1125726 (Mich Ct App, March 22, 2016)

#### **Chapter 24 – Reconditioning/Remanufacturing:**

- MCL 205.54t(3)(g) & (7)(d)
- MCL 205.94o(3)(g) & (7)(d)
- RAB 2000-4, *Sales and Use Tax - Industrial Processing*

#### **Chapter 25 – Refrigeration & Freezers:**

- MCL 205.54t
- MCL 205.94o
- 1979 AC R 205.89 (Rule 39), *Ice Producing*

#### **Chapter 26 – Repackaging:**

RAB 2000-4, *Sales and Use Tax - Industrial Processing*

#### **Chapter 27 – Retail Preparation of Food:**

- MCL 205.54t(5)(h)
- MCL 205.94o(5)(h)
- MCL 205.54t(2)
- RAB 2000-4, *Sales and Use Tax - Industrial Processing*

#### **Chapter 28 – Retailers and the Industrial Processing Exemption:**

- 1979 AC R 205.104 (Rule 54), *Optometrists, Ophthalmologists, Opticians, and Optical Supply Houses.*
- LR 87-52, *Medical Equipment and Supplies*

#### **Chapter 29 – Scrap Dealers & Recyclers:**

- MCL 205.54t(3)(h)
- MCL 205.54t(3)(i)
- MCL 205.54t(4)(f)
- MCL 205.94o(3)(h)
- MCL 205.94o(3)(i)
- MCL 205.94o(4)(f)
- MCL 205.92(1)
- LR 86-25, *Processing and Sales of Shredded Paper*

#### **Chapter 30 – Servicers:**

- None

### **Chapter 31 – Storage – Storage Tanks and Mixing Tanks:**

- MCL 205.54t
- MCL 205.94o
- LR 88-16, *Rental of Gas Cylinders*

### **Chapter 32 – Store Accounts (Non-Production Inventory):**

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- MCL 205.94o
- 1979 AC R 205.90 (Rule 40), *Industrial Processing*
- RAB 2000-4, *Sales and Use Tax - Industrial Processing*

### **Chapter 33 – Taxidermists:**

- MCL 205.54t
- MCL 205.94o
- 1979 AC R 205.90 (Rule 40), *Industrial Processing*

### **Chapter 34 – Utilities:**

- MCL 205.54t(4)(e) and (5)(a)
- MCL 205.94o(4)(e) and (5)(a)
- RAB 2000-4, *Sales and Use Tax - Industrial Processing*
- 1979 AC R 205.90(3)(a) (Rule 40), *Industrial Processing*
- LR 87-53, *Utility Service Charge*
- LR 90-16, *Refund on Utilities Used for Industrial Processing*

### **Chapter 35 – Waste Removal/Pollution Control Facilities:**

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- MCL 205.94o(3)(h)
- MCL 205.54a(1)(l)
- MCL 205.94(1)(s)
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