



**Pennsylvania Compensation Rating Bureau**

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June 8, 1998

**BUREAU CIRCULAR NO. 1373**

To All Members of the Bureau:

Re: **MANUAL REVISIONS - SECTIONS 2, 4 AND 5**

**1) ERECTION OF SIX NEW ELECTRONICS INDUSTRY CLASSES AND  
AMENDMENTS TO CLASSES 472, 473 AND 487**

**2) ERECTION OF NEW CLASSES 885 AND 886 AND REVISIONS TO  
CLASS 926 SECTION 5 ENTRIES**

**EFFECTIVE SEPTEMBER 1, 1998**

The Bureau has filed and the Insurance Commissioner approved Manual revisions pertaining to changes in classification procedure in Pennsylvania to become effective as of 12:01 a.m., September 1, 1998 with respect to new and renewal business only. These revisions, as referenced above, are shown below.

**1) Erection of Six New Electronics Industry Classes and Amendments to Classes 472, 473 and 487**

As a result of a study of the electronics industry precipitated by an appeal to the Bureau's Classification and Rating Committee, the Bureau is erecting six new classes, as well as amending the existing Classes 472, 473 and 487, to more clearly define classification assignments for this industry. A summary of the new class breakdown is shown below:

**Code 471, Printed Circuit Board Assembly Or Electrical Wire Harness Mfg., By Contractor**

This class applies to the manufacture of printed circuit boards, the assembly of components onto printed circuit boards (mounting/stuffing), the installation of resultant boards into a chassis with the addition of wire leads, and the assembly of electrical wire harnesses, automotive wire harnesses or connector cable assemblies. This class does not apply to any component part (electronic or otherwise) that is used in the manufacture of an electronic device but will be limited to concerns who perform these services for other concerns on a contract basis.

Code 474, Electric Power Or Transmission Equipment Mfg.

This class includes the manufacture of equipment for the generation or transmission of electrical energy, including primary circuits and distribution substations, transformers and secondary circuits and appropriate protective and control devices.

Code 476, Industrial Control Systems Manufacturing/Assembly

This class applies primarily to shop wiring operations where controls, switches and instrumentation are wired into a cabinet or a complete control station which can be computer-based, allowing the operator to read, display and change the operating system.

Code 477, Electric Motor Mfg. Or Repair

This class applies to all manufacture or shop repair of electric motors, including the cleaning and rewinding of armatures, field coils and/or rotors.

Code 485, Communications, Search, Detection Or Signal Processing Equipment Mfg.

This class applies to the manufacture of telephone or telegraph equipment, radio or TV broadcasting and communications equipment, search, detection, navigation guidance and aeronautical systems.

Code 488, Electronic Measuring Or Analytical Instrument Mfg.

This class includes the manufacture of electric test equipment, totalizing fluid meters and counting devices, and electronic test and precision measuring equipment.

The Manual revisions are shown below with new wording underlined and deletions [bracketed]:

## SECTION 2

471 PRINTED CIRCUIT BOARD ASSEMBLY OR ELECTRICAL WIRE HARNESS MFG. - BY CONTRACTOR.

Applies to concerns principally engaged in performing any of the services discussed below for others on a contract basis.

Includes the manufacture/assembly of printed circuit boards, the placement of components onto printed circuit boards (mounting/stuffing) or the installation of resultant boards into a chassis with the addition of wire leads.

Also contemplated by this class is the assembly of electrical wire harnesses, automotive wire harnesses or connector cable assemblies. Electrical cord assembly is to be assigned to Code 473. The manufacture of wire or cable shall be separately classified as provided for in this Manual.

472 ELECTRONIC COMPONENT MFG., N.O.C.

[Includes but is not limited] Applies to the manufacture of electronic component parts used to receive, store, govern or direct the flow of current within an electrical circuit, such as resistors, capacitors, [diodes, transistors, integrated circuits and printed circuit boards.] coils, transformers (less than 746 watts), filters or transducers. [Job shops engaged in subassembly of electronic parts shall be included in this class.]

Also applies to semiconductor material refining, the manufacture of integrated circuits, quartz crystal culturing or glass to metal seals.

Not applicable to the manufacture of non-electronic parts (e.g., pushbuttons, springs or gaskets). The inclusion of such non-electronic parts in an electronic device is not to be construed as an electronic component as defined by this classification.

473 ELECTRICAL APPARATUS MFG., N.O.C.

[Foundry operations to be separately rated.]

Applies but is not limited to the manufacture or shop repair of electrical housewares, hand-held power tools, electrical fixtures or small electrical appliances.

474 ELECTRIC POWER OR ELECTRIC TRANSMISSION EQUIPMENT MFG.

Contemplates the manufacture of equipment for the generation, storage or transmission of electrical energy or vacuum furnaces.

Includes the manufacture of power transformers (over one horsepower), switchgear or switchboard apparatus, generators or vacuum furnaces.

476 INDUSTRIAL CONTROLS OR SYSTEMS MANUFACTURE/ASSEMBLY.

Applies to the manufacture/assembly of motor controllers, control panels and/or systems used in industrial plants for the distribution of power, control of heating or air conditioning or batch control.

Risks engaged in the manufacture of meters, counters, thermometers or other electronic analytical/measuring instrumentation not otherwise classified shall be assigned to Code 488.

Installation or repair provided at customer locations shall be separately classified as provided for in this Manual.

477 ELECTRIC MOTOR MFG. OR REPAIR.

Applies to firms principally engaged in the manufacture, shop repair or rewinding or electric motors, armatures or field coils.

485 COMMUNICATIONS, SEARCH, DETECTION OR SIGNAL PROCESSING EQUIPMENT MFG.

Includes but is not limited to the manufacture of:

(1) Telephone or telegraph equipment or apparatus

(2) Radio or TV broadcasting or communications equipment

(3) Search, detection, navigation, guidance, aeronautical or nautical systems

- 487 SURGICAL OR OPTICAL INSTRUMENT MFG.[, professional or scientific.]  
Applies but is not limited to the manufacturing of surgical or dental instruments, optical instruments, optical lens grinding, fiber optics or other precision metal instruments such as drafting equipment, compasses, T-squares, or triangles.
- 488 ELECTRONIC MEASURING OR ANALYTICAL INSTRUMENT MFG.  
Includes the manufacture of electric test equipment, totalizing fluid meters or counters, electronic test or measuring instrumentation.  
Also contemplated by this class is the manufacture of medical diagnostic equipment such as CAT scanners or MRIs.

**SECTION 4**

Code	Hazard Group
<u>471</u>	<u>II</u>
<u>474</u>	<u>II</u>
<u>476</u>	<u>II</u>
<u>477</u>	<u>II</u>
<u>485</u>	<u>II</u>
<u>488</u>	<u>II</u>

**SECTION 5**

Underwriting Guide

<u>Printed Circuit Board Stuffing By Contractor</u>	<u>471</u>
<u>Stuffing Printed Circuit Boards, Adding Wiring And Chassis By Contractor</u>	
<u>Per Customer Design</u>	<u>471</u>
<u>Electrical Wire Harness Assembly</u>	<u>471</u>
<u>Automotive Wire Harness Assembly</u>	<u>471</u>
<u>Cable Connector Assembly</u>	<u>471</u>
<u>Coils - Less Than One H.P.</u>	<u>472</u>
<u>Transducer Mfg.</u>	<u>472</u>
<u>Transformer Mfg. Less Than One H.P. Used in Electronic Devices</u>	<u>472</u>
<u>Automotive Alternator Or Generator Mfg. Or Repair</u>	<u>473</u>
<u>Blender Mfg. - Household</u>	<u>473</u>
<u>Blinkerlight Mfg.</u>	<u>473</u>
<u>Dimmer Switch Mfg.</u>	<u>473</u>
<u>Electric Blanket Mfg.</u>	<u>473</u>
<u>Electric Fan Mfg.</u>	<u>473</u>
<u>Floor Cleaning/Waxing Machine Mfg.</u>	<u>473</u>
<u>Hair Dryer Mfg. - Hand-Held</u>	<u>473</u>
<u>Heating Pad Mfg.</u>	<u>473</u>
<u>Humidifier Mfg.</u>	<u>473</u>

## Underwriting Guide continued:

Mercury Switch Mfg.	473
Switch Mfg. - Household	473
Trains, Electric - Toy Or Model Mfg.	473
Bus-bar Mfg.	474
Vacuum Furnace, Kiln Or Drying Oven Mfg.	474
Motor Controller Assembly	477
Power Controller Assembly	477
Computer Peripheral Mfg.	483
Facsimile Equipment Mfg.	483
Modem Mfg.	483
Infrared Homing Systems Mfg.	485
Microphone Mfg.	485
Microwave Communication Equipment Mfg.	485
Missile Guidance Equipment Mfg.	485
Multiplexer Mfg.	485
Navigational Instruments Mfg.	485
Receivers - Radio Communication Mfg.	485
Sonar Equipment Mfg.	485
Telemetry Equipment Mfg.	485
Megetron Device Mfg. (Specialty Electron)	486
Binocular Mfg.	487
Dental Drill Or Dental Tools Mfg.	487
Drafting Equipment Mfg.	487
Surveying Equipment Mfg.	487
Altimeter Mfg.	488
Blood & Gas Analyzer Mfg.	488
CAT Scanner Mfg.	488
Defibrillator Mfg.	488
Fetal Monitor Mfg.	488
Heart Scan Systems Mfg.	488
Magnetic Resonance Imaging (MRI) Mfg.	488
Respirator Equipment Mfg.	488
Semiconductor Test Equipment Mfg.	488
Ultrasound Imager Mfg.	488
Vital Signs Monitoring Equipment Mfg.	488
Volt Meter Mfg.	488
Wafer Cleaning Equipment	488
Wafer (Semiconductor) Dicing Machine Mfg.	488
Wet Wafer Processing Equipment	488
Printed Circuit Board Mfg. <u>By Specialist Contractor</u>	[472] 471
Ceramic Capacitor Mfg. - <u>Less Than One H.P.</u>	472
Resistor Mfg. - <u>Less Than One H.P.</u>	472
Electric Power Equipment Mfg. <u>For Utilities</u>	[473] 474
Generator Mfg. Electric	[473] 474

## Underwriting Guide continued:

Switchgear [And] <u>Or</u> Switchboard Apparatus Mfg.	[473] <u>474</u>
Transformer Mfg. ( <u>One H.P. Or More</u> )	[473] <u>474</u>
Environmental Control [Instrumentation And] Systems Mfg. [And]/Assembly	[487] <u>476</u>
Process Control [Instrumentation And] Systems Mfg. [And]/Assembly	[487] <u>476</u>
Armature Mfg.	[473] <u>477</u>
Electric Motor <u>Mfg. Or</u> Repair - Shop Only	[473] <u>477</u>
Aircraft Radio [And] <u>Or</u> Transmitting Equipment Mfg.	[473] <u>485</u>
Amplifier Mfg.	[473] <u>485</u>
Antenna Mfg.	[473] <u>485</u>
Depth Sounding Equipment Mfg.	[473] <u>485</u>
Hearing Aid Mfg.	[473] <u>485</u>
Intercommunications Equipment Mfg.	[473] <u>485</u>
Radar Devices Mfg.	[473] <u>485</u>
Radio [And] <u>Or</u> Television Transmitting, Signaling [And] <u>Or</u> Detection Equipment [And] <u>Or</u> Apparatus Mfg.	[473] <u>485</u>
Recording Devices Mfg.	[473] <u>485</u>
Speaker Mfg.	[473] <u>485</u>
[Hi-fi And] Stereo Equipment Mfg.	[473] <u>485</u>
Tape Recorder Mfg.	[473] <u>485</u>
Telephone Or Telegraph Apparatus Mfg.	[473] <u>485</u>
Video Cassette Recorder Mfg.	[473] <u>485</u>
Aircraft Instrument Mfg. (Not Radio Or Radar)	[487] <u>488</u>
Automatic Temperature Control Mfg.	[487] <u>488</u>
Electric Measuring Instrument [And] <u>Or</u> Test Equipment Mfg.	[487] <u>488</u>
Electrocardiograph Equipment Mfg.	[487] <u>488</u>
Flow Controller Mfg.	[487] <u>488</u>
Flowmeter Mfg.	[487] <u>488</u>
Gas Meter Mfg.	[487] <u>488</u>
Medical [Instrument] <u>Equipment Mfg., Electronic - Diagnostic or Treatment</u>	[487] <u>488</u>
Pyrometer Mfg.	[487] <u>488</u>
Speedometer Mfg.	[487] <u>488</u>
Steam Pressure Gauge Mfg.	[487] <u>488</u>
Tachometer Mfg.	[487] <u>488</u>
Taximeter Mfg.	[487] <u>488</u>
Thermocouple Mfg.	[487] <u>488</u>
Thermometer Mfg.	[487] <u>488</u>
Thermostat Mfg.	[487] <u>488</u>
Valve Actuator Mfg.	[487] <u>488</u>
Water Meter Mfg.	[487] <u>488</u>
[Electronic Subassembly, N.O.C.]	472]
[Aircraft Flight Simulator Mfg.]	473]
[Gyroscope Mfg.]	487]

Underwriting Guide continued:

[Professional Instrument Mfg. 487]  
[Scientific Instrument mfg. 487]

Loss costs and expected loss factors consistent with these revisions are attached as Exhibit 1.

**2) Erection of New Classes 885 and 886 and Revisions to Class 926 Section 5 Entries**

As a result of the study of Class 926, Hardware Store, Wholesale, the Bureau is erecting new classes for electrical supply dealers and plumbing supply dealers. These two groups have sufficient payroll for separation and are readily identifiable within Class 926.

The Manual revisions are shown below with new wording underlined and deletions [bracketed]:

**SECTION 2**

**885 PLUMBING SUPPLIES DEALER OR PIPE MERCHANT - WHOLESALE**

**886 ELECTRICAL SUPPLIES DEALER - WHOLESALE**

**SECTION 4**

Code	Hazard Group
<u>885</u>	<u>II</u>
<u>886</u>	<u>II</u>

**SECTION 5**

Rulings and Interpretations

**PLUMBING SUPPLIES DEALER OR PIPE MERCHANT - WHOLESALE - 885**

Applies to dealers principally engaged in the wholesale selling of plumbing supplies or pipe. The term plumbing supplies as used in this classification includes but is not necessarily limited to: water heaters, water pumps, kitchen/bathroom fixtures (i.e., sinks, faucets, toilets, bath tubs, shower stalls), fittings or valves. Also included is the selling of pipe of all types and sizes. Insureds principally engaged in the sale of heating, ventilating and/or air conditioning equipment, supplies or parts are further contemplated by this classification.

ELECTRICAL SUPPLIES DEALER - WHOLESALE - 886

Applies to dealers principally engaged in the wholesale selling of electrical supplies. The term electrical supplies as used in this classification includes but is not necessarily limited to: electric wire, electrical (junction) boxes, fuses, switches, outlets, circuit breakers or lighting fixtures. This classification shall also include dealers in electronic components/accessories. Examples of electronic components/accessories include but are not limited to: inductors, resistors, circuit boards, transistors and relays.

HARDWARE STORES - WHOLESALE - 926

Applies to dealers principally engaged in the wholesale selling of hardware. The term hardware as used in this classification includes but is not necessarily limited to: nails, screws, bolts, washers, gaskets, brackets, locks, hinges, [electrical outlet boxes, switches, fuses, plugs, sockets,] hand portable electric tools, machine tools, [plumbing fixtures,] small household electrical appliances, stereo equipment, radios, televisions, video and/or audio equipment, kitchenware, mill supplies or garden tools [and] or garden equipment such as lawn mowers [and] or snow blowers. A wholesale hardware dealer may also sell plumbing or electrical supplies.

Also includes "ship chandlers" who are dealers in ship supplies and equipment, such as engine room equipment, lifeboat supplies, navigational instruments, deck gear [and] or other ship stores.

Other types of risks included in this classification are wholesale dealers in the following articles:

1. Radio or Television Parts
2. Appliance Parts (for example, washers, dryers, window unit air conditioners or refrigerators)
3. Aircraft Parts and Accessories
- [4. Ventilating System, Commercial Air Conditioning or Refrigerator Parts]
- [5. Heating Units and Parts]
- [6.] 4. Welding Supplies, such as bottled gases, torches, welding rods [and] or face masks
- [7.] 5. Cutlery
- [8.] 6. Sewing Machine Heads [and] or Parts

[In the initial classification process w]Where a store sells several types of merchandise, each of which may be subject to a different classification, such store shall be assigned on the basis of the principal category of merchandise sold. The term "principal" means more than 50 percent of the gross receipts.

[Operations Not Covered:] OPERATIONS NOT COVERED:

1. Wholesale dealers principally engaged in selling wire[,], rope or cable assign to Code 857[, Iron or Steel Merchant].
2. Retail or wholesale establishments principally engaged in selling building materials such as roofing (including shingles), siding, wallboard, brick and/or lumber assign to Code 855[, Lumber and/or Building Material Dealer].



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<u>Heating, Ventilating Or Air Conditioning Equipment Or Parts Dealer - Wholesale</u>	<u>885</u>
<u>Refrigeration System Parts And/Or Accessories Dealer - Wholesale</u>	<u>885</u>
Gas, Steam [And] <u>Or</u> Hot Water Apparatus Supplies Dealer - Wholesale	[926] <u>885</u>
Kitchen And/Or Bath Fixture Dealer	[926] <u>885</u>
Pipe Merchant, Including Cutting, New Materials Only <u>- All Types And Sizes</u>	[926] <u>885</u>
Plumb[ers'] <u>ing</u> Supplies Dealer - Wholesale	[926] <u>885</u>
Electrical Supply Dealer - Wholesale	[926] <u>885</u>
Electronic Components And/ <u>Or</u> Accessories Dealer - Wholesale	[926] <u>886</u>
Electrical Machinery, Equipment [And] <u>Or</u> Supply Dealer - Wholesale	926
[Radio Or Television] Parts [&] Accessories [Dealer - Wholesale	}
Radio, Television, Stereophonic Or High Fidelity Equipment, Parts <u>Or</u>	}
Accessories Dealer - Wholesale	}
Welding Equipment [And] <u>Or</u> Supply Dealer	926
 [Franklin Stove - Sale - Retail	 925]
[Kerosene Heater Sale - Retail	925]
[Franklin Stove - Sale And/Or Service - Wholesale	926]
[Kerosene Heater Dealer - Wholesale	926]

Loss costs and expected loss factors consistent with these revisions are attached as Exhibit 2.

Manual reprints will be distributed at a later date in the usual manner.

Timothy L. Wisecarver  
President

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Attachment

**Exhibit 1****ELECTRONICS INDUSTRY CLASSES**

<b>CODE</b>	<b>INDICATED LOSS COST</b>	<b>APPROVED LOSS COST</b>	<b>Expected Loss Factors</b>		
			<b>A-1</b>	<b>A-2</b>	<b>A-3</b>
473	2.47	2.56	1.24	1.59	1.89
474	1.47	1.52	0.74	0.95	1.12
477	2.20	2.28	1.10	1.42	1.68
472	1.50	1.56	0.75	0.97	1.15
471	1.54	1.60	0.77	0.99	1.18
476	1.40	1.45	0.70	0.90	1.07
485	1.52	1.58	0.76	0.98	1.16
487	1.34	1.39	0.67	0.86	1.03
488	1.60	1.66	0.80	1.03	1.22

**Exhibit 2****NEW CLASSES 885 AND 886 AND REVISED CLASS 926**

<b>CODE</b>	<b>INDICATED LOSS COST</b>	<b>APPROVED LOSS COST</b>	<b>Expected Loss Factors</b>		
			<b>A-1</b>	<b>A-2</b>	<b>A-3</b>
885	3.60	3.73	1.91	2.48	2.89
886	2.76	2.86	1.47	1.90	2.22
926	2.84	2.95	1.51	1.96	2.28