MasterFormat® Numbers & Titles

April 2016

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  02 61 23 Removal and Disposal of Polychlorinate Biphenyl Contaminated Soils
  02 61 26 Removal and Disposal of Asbestos Contaminated Soils
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02 62 00 Hazardous Waste Recovery Processes
  02 62 13 Air and Steam Stripping
  02 62 16 Soil Vapor Extraction
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02 65 00 Underground Storage Tank Removal

02 70 00 Water Remediation

02 71 00 Groundwater Treatment

02 72 00 Water Decontamination
  02 72 13 Chemical Water Decontamination
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  02 82 13.19 Asbestos Floor Tile and Mastic Abatement
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02 84 00 Polychlorinate Biphenyl Remediation
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  03 01 10  Maintenance of Concrete Forming and Accessories
  03 01 20  Maintenance of Concrete Reinforcing
  03 01 23  Maintenance of Stressing Tendons
  03 01 30  Maintenance of Cast-in-Place Concrete
  03 01 30.51  Cleaning of Cast-in-Place Concrete
  03 01 30.61  Resurfacing of Cast-in-Place Concrete
  03 01 30.71  Rehabilitation of Cast-in-Place Concrete
  03 01 30.72  Strengthening of Cast-in-Place Concrete
  03 01 40  Maintenance of Precast Concrete
  03 01 40.51  Cleaning of Precast Concrete
  03 01 40.61  Resurfacing of Precast Concrete
  03 01 40.71  Rehabilitation of Precast Concrete
  03 01 40.72  Strengthening of Precast Concrete
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  03 01 50.51  Cleaning of Cast Decks and Underlayment
  03 01 50.61  Resurfacing of Cast Decks and Underlayment
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  03 01 70  Maintenance of Mass Concrete
  03 01 80  Maintenance of Concrete Cutting and Boring

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03 06 00  Schedules for Concrete
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03 21 13 Galvanized Reinforcement Steel Bars
03 21 16 Epoxy-Coated Reinforcement Steel Bars
03 21 19 Stainless Steel Reinforcement Bars
03 21 21 Composite Reinforcement Bars
03 21 21.11 Glass Fiber-Reinforced Polymer Reinforcement Bars
03 21 21.13 Organic Fiber-Reinforced Polymer Reinforcement Bars
03 21 21.16 Carbon Fiber-Reinforced Polymer Reinforcement Bars

03 22 00 Fabric and Grid Reinforcing
03 22 13 Galvanized Welded Wire Fabric Reinforcing
03 22 16 Epoxy-Coated Welded Wire Fabric Reinforcing
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03 25 13 Glass Fiber-Reinforced Polymer Reinforcing
03 25 16 Organic Fiber-Reinforced Polymer Reinforcing
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03 30 00 Cast-in-Place Concrete
03 30 53 Miscellaneous Cast-in-Place Concrete
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  03 31 13  Heavyweight Structural Concrete
  03 31 16  Lightweight Structural Concrete
  03 31 19  Shrinkage-Compensating Structural Concrete
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03 34 00  Low Density Concrete

03 35 00  Concrete Finishing
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  03 35 19  Colored Concrete Finishing
  03 35 23  Exposed Aggregate Concrete Finishing
  03 35 26  Grooved Concrete Surface Finishing
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  03 41 33  Precast Structural Pretensioned Concrete
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07 01 50.16  Roof Maintenance Program
07 01 50.19  Preparation for Re-Roofing
07 01 50.23  Roof Removal
07 01 50.61  Roof Re-Coating
07 01 50.81  Roof Replacement
07 01 50.91  Roofing Restoration
07 01 60  Maintenance of Flashing and Sheet Metal
07 01 60.71  Flashing and Sheet Metal Rehabilitation
07 01 60.91  Flashing and Sheet Metal Restoration
07 01 60.92  Flashing and Sheet Metal Preservation
07 01 70  Operation and Maintenance of Roof Specialties and Accessories
07 01 80  Maintenance of Fire and Smoke Protection
07 01 90  Maintenance of Joint Protection
07 01 90.71  Joint Sealant Rehabilitation
07 01 90.81  Joint Sealant Replacement

07 03 00  Conservation Treatment for Period Roofing
07 03 30  Conservation Treatment for Period Steep Slope Roofing
07 03 30.13  Conservation Treatment for Period Canvas Roofing
07 03 30.16  Conservation Treatment for Period Board Roofing
07 03 31  Conservation Treatment for Period Shingles and Shakes
07 03 31.16  Conservation Treatment for Period Metal Shingles
07 03 31.26  Conservation Treatment for Period Slate Shingles
07 03 31.29  Conservation Treatment for Period Wood Shingles and Shakes
07 03 32  Conservation Treatment for Period Roof Tiles
07 03 32.13  Conservation Treatment for Period Clay Roof Tiles
07 03 32.16  Conservation Treatment for Period Concrete Roof Tiles
07 03 32.19  Conservation Treatment for Period Metal Roof Tiles
07 03 33  Conservation Treatment for Period Natural Roof Coverings
07 03 33.13  Conservation Treatment for Period Sod Roofing
07 03 40  Conservation Treatment for Period Roofing and Siding Panels
07 03 41  Conservative Treatment for Period Roof Panels
07 03 41.13  Conservation Treatment for Period Metal Roof Panels
07 03 41.23  Conservation Treatment for Period Wood Roof Panels
07 03 46  Conservation Treatment for Period Wood Siding
07 03 60  Conservation Treatment of Period Flashing and Sheet Metal
07 03 61  Conservation Treatment for Period Sheet Metal Roofing
07 03 61.13  Conservation Treatment for Period Standing Seam Sheet Metal Roofing
07 03 61.16  Conservation Treatment for Period Batten Seam Sheet Metal Roofing
07 03 61.19  Conservation Treatment for Period Flat Seam Sheet Metal Roofing

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07 05 05  Selective Demolition for Thermal and Moisture Protection
07 05 43  Cladding Support Systems
07 05 53  Fire and Smoke Assembly Identification

07 06 00  Schedules for Thermal and Moisture Protection
  07 06 10  Schedules for Dampproofing and Waterproofing
  07 06 20  Schedules for Thermal Protection
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  07 06 40  Schedules for Roofing and Siding Panels
  07 06 50  Schedules for Membrane Roofing
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  07 06 80  Schedules for Fire and Smoke Protection
  07 06 80.13 Fireproofing Schedule
  07 06 80.16 Firestopping Schedule
  07 06 90  Schedules for Joint Protection
  07 06 90.13 Joint Sealant Schedule

07 08 00  Commissioning of Thermal and Moisture Protection

07 10 00  Dampproofing and Waterproofing

07 11 00  Dampproofing
  07 11 13  Bituminous Dampproofing
  07 11 16  Cementitious Dampproofing
  07 11 19  Sheet Dampproofing

07 12 00  Built-Up Bituminous Waterproofing
  07 12 13  Built-Up Asphalt Waterproofing
  07 12 16  Built-Up Coal Tar Waterproofing

07 13 00  Sheet Waterproofing
  07 13 13  Bituminous Sheet Waterproofing
  07 13 26  Self-Adhering Sheet Waterproofing
  07 13 52  Modified Bituminous Sheet Waterproofing
  07 13 53  Elastomeric Sheet Waterproofing
  07 13 54  Thermoplastic Sheet Waterproofing

07 14 00  Fluid-Applied Waterproofing
  07 14 13  Hot Fluid-Applied Rubberized Asphalt Waterproofing
  07 14 14  Hot Fluid-Applied Polyurea Waterproofing
  07 14 16  Cold Fluid-Applied Waterproofing

07 15 00  Sheet Metal Waterproofing
  07 15 13  Sheet Lead Waterproofing

07 16 00  Cementitious and Reactive Waterproofing
  07 16 13  Polymer Modified Cement Waterproofing
  07 16 16  Crystalline Waterproofing
  07 16 19  Metal Oxide Waterproofing

07 17 00  Bentonite Waterproofing
  07 17 13  Bentonite Panel Waterproofing
  07 17 16  Bentonite Composite Sheet Waterproofing

07 18 00  Traffic Coatings
  07 18 13  Pedestrian Traffic Coatings
  07 18 16  Vehicular Traffic Coatings

07 19 00  Water Repellents
  07 19 13  Acrylic Water Repellents
07 19 16  Silane Water Repellents
07 19 19  Silicone Water Repellents
07 19 23  Siloxane Water Repellents
07 19 26  Stearate Water Repellents
07 19 29  Penetrating Polyester Water Repellents

07 20 00  **Thermal Protection**

07 21 00  **Thermal Insulation**
- 07 21 13  Board Insulation
- 07 21 13.13  Foam Board Insulation
- 07 21 13.16  Fibrous Board Insulation
- 07 21 13.19  Mineral Board Insulation
- 07 21 16  Blanket Insulation
- 07 21 19  Foamed-In-Place Insulation
- 07 21 23  Loose-Fill Insulation
- 07 21 26  Blown Insulation
- 07 21 29  Sprayed Insulation
- 07 21 53  Reflective Insulation

07 22 00  **Roof and Deck Insulation**
- 07 22 13  Asphaltic Perlite Concrete Deck
- 07 22 16  Roof Board Insulation

07 24 00  **Exterior Insulation and Finish Systems**
- 07 24 13  Polymer-Based Exterior Insulation and Finish System
- 07 24 16  Polymer-Modified Exterior Insulation and Finish System
- 07 24 19  Water-Drainage Exterior Insulation and Finish System
- 07 24 23  Direct-Applied Finish Systems

07 25 00  **Weather Barriers**

07 26 00  **Vapor Retarders**
- 07 26 13  Above-Grade Vapor Retarders
- 07 26 16  Below-Grade Vapor Retarders
- 07 26 23  Below-Grade Gas Retarders

07 27 00  **Air Barriers**
- 07 27 13  Modified Bituminous Sheet Air Barriers
- 07 27 16  Sheet Metal Membrane Air Barriers
- 07 27 19  Plastic Sheet Air Barriers
- 07 27 23  Board Product Air Barriers
- 07 27 26  Fluid-Applied Membrane Air Barriers
- 07 27 36  Sprayed Foam Air Barrier

07 30 00  **Steep Slope Roofing**
- 07 30 91  Canvas Roofing

07 31 00  **Shingles and Shakes**
- 07 31 13  Asphalt Shingles
- 07 31 13.13  Fiberglass-Reinforced Asphalt Shingles
- 07 31 16  Metal Shingles
- 07 31 19  Mineral-Fiber Cement Shingles
- 07 31 23  Porcelain Enamel Shingles
- 07 31 26  Slate Shingles
- 07 31 29  Wood Shingles and Shakes
- 07 31 29.13  Wood Shingles
07 31 29.16 Wood Shakes
07 31 33 Composite Rubber Shingles
07 31 53 Plastic Shakes

07 32 00 Roof Tiles
07 32 13 Clay Roof Tiles
07 32 14 Ceramic and Porcelain Roof Tiles
07 32 16 Concrete Roof Tiles
07 32 19 Metal Roof Tiles
07 32 23 Mineral-Fiber Cement Roof Tiles
07 32 26 Plastic Roof Tiles
07 32 29 Rubber Tiles/Panels

07 33 00 Natural Roof Coverings
07 33 13 Sod Roofing
07 33 16 Thatched Roofing
07 33 63 Vegetated Steep-Slope Roofing

07 40 00 Roofing and Siding Panels

07 41 00 Roof Panels
07 41 13 Metal Roof Panels
07 41 16 Insulated Metal Roof Panels
07 41 23 Wood Roof Panels
07 41 33 Plastic Roof Panels
07 41 43 Composite Roof Panels
07 41 63 Fabricated Roof Panel Assemblies

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07 42 13.13 Formed Metal Wall Panels
07 42 13.16 Metal Plate Wall Panels
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07 42 13.23 Metal Composite Material Wall Panels
07 42 23 Wood Wall Panels
07 42 26 Tile Wall Panels
07 42 29 Terra Cotta Wall Panels
07 42 33 Plastic Wall Panels
07 42 43 Composite Wall Panels
07 42 46 Cementitious Wall Panels
07 42 63 Fabricated Wall Panel Assemblies
07 42 93 Soffit Panels

07 44 00 Faced Panels
07 44 13 Aggregate Coated Panels
07 44 16 Porcelain Enameled Faced Panels
07 44 19 Tile-Faced Panels
07 44 23 Ceramic-Tile-Faced Panels
07 44 33 Metal Faced Panels
07 44 53 Glass-Fiber-Reinforced Cementitious Panels
07 44 56 Mineral-Fiber-Reinforced Cementitious Panels
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07 46 00 Siding
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07 46 19 Steel Siding
07 46 21  Zinc Siding
07 46 23  Wood Siding
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07 46 24.13  Wood Shingle Siding
07 46 24.16  Wood Shake Siding
07 46 26  Hardboard Siding
07 46 29  Plywood Siding
07 46 33  Plastic Siding
07 46 43  Composition Siding
07 46 46  Fiber-Cement Siding
07 46 63  Fabricated Panel Assemblies with Siding

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07 51 00  Built-Up Bituminous Roofing
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07 52 00  Modified Bituminous Membrane Roofing
07 52 13  Atactic-Polypropylene-Modified Bituminous Membrane Roofing
07 52 13.11  Cold Adhesive Applied Atactic-Polypropylene-Modified Bituminous Membrane Roofing
07 52 13.13  Torch-Applied Atactic-Polypropylene-Modified Bituminous Membrane Roofing
07 52 13.14  Mechanically Fastened Atactic-Polypropylene-Modified Bituminous Membrane Roofing
07 52 16  Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing
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07 52 16.12  Hot-Mopped Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing
07 52 16.13  Torch-Applied Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing
07 52 16.14  Mechanically Fastened Styrene-Butadiene-Styrene Modified Bituminous Membrane Roofing

07 53 00  Elastomeric Membrane Roofing
07 53 13  Chlorinated-Polyethylene Roofing
07 53 16  Chlorosulfonate-Polyethylene Roofing
07 53 23  Ethylene-Propylene-Diene-Monomer Roofing
07 53 29  Polyisobutylene Roofing

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07 54 26  Nitrile-Butadiene-Polymer Roofing

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07 63 00 Sheet Metal Roofing Specialties
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  07 64 13 Standing Seam Sheet Metal Wall Cladding
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  07 65 13 Laminated Sheet Flashing
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07 76 13 Roof Ballast Pavers
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07 80 00 Fire and Smoke Protection

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07 81 16 Cementitious Fireproofing
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07 81 23 Intumescent Fireproofing
07 81 26 Magnesium Cement Fireproofing
07 81 29 Mineral-Fiber Cementitious Fireproofing
07 81 33 Mineral-Fiber Fireproofing

07 82 00 Board Fireproofing
07 82 13 Calcium-Silicate Board Fireproofing
07 82 16 Slag-Fiber Board Fireproofing

07 84 00 Firestopping
07 84 13 Penetration Firestopping
07 84 13.13 Penetration Firestopping Mortars
07 84 13.16 Penetration Firestopping Devices
07 84 43 Joint Firestopping
07 84 53 Building Perimeter Firestopping

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07 87 00 Smoke Containment Barriers

07 90 00 Joint Protection

07 91 00 Preformed Joint Seals
07 91 13 Compression Seals
07 91 16 Joint Gaskets
07 91 23 Backer Rods
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07 92 00 Joint Sealants
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07 92 19 Acoustical Joint Sealants

07 95 00 Expansion Control
07 95 13 Expansion Joint Cover Assemblies
07 95 13.13 Interior Expansion Joint Cover Assemblies
07 95 13.16 Exterior Expansion Joint Cover Assemblies
07 95 13.19 Parking Deck Expansion Joint Cover Assemblies
07 95 53 Joint Slide Bearings
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08 01 15 Operation and Maintenance of Plastic Doors
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08 01 30  Operation and Maintenance of Specialty Doors and Frames
08 01 32  Operation and Maintenance of Sliding Glass Doors
08 01 33  Operation and Maintenance of Coiling Doors and Grilles
08 01 34  Operation and Maintenance of Special Function Doors
08 01 35  Operation and Maintenance of Folding Doors and Grilles
08 01 36  Operation and Maintenance of Panel Doors
08 01 39  Operation and Maintenance of Traffic Doors
08 01 40  Operation and Maintenance of Entrances, Storefronts, and Curtain Walls
08 01 41  Operation and Maintenance of Entrances
08 01 42  Operation and Maintenance of Storefronts
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08 01 52.93  Historic Treatment of Wood Windows
08 01 53  Operation and Maintenance of Plastic Windows
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08 01 62  Operation and Maintenance of Unit Skylights
08 01 63  Operation and Maintenance of Metal-Framed Skylights
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08 01 70  Operation and Maintenance of Hardware
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08 01 80  Maintenance of Glazing
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08 03 11.23  Conservation Treatment for Period Bronze Doors and Frames
08 03 14  Conservation Treatment for Period Wood Doors
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08 03 14.33  Conservation Treatment for Period Stile and Rail Wood Doors
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08 03 34.59  Conservation Treatment for Period Vault Doors
08 03 50  Conservation Treatment for Period Windows
08 03 51 Conservation Treatment for Period Metal Windows
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08 03 51.23 Conservation Treatment for Period Steel Windows
08 03 52 Conservation Treatment for Period Wood Windows
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08 03 90 Conservation Treatment for Period Louvers and Vents
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08 06 00 Schedules for Openings
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08 10 00 Doors and Frames

08 11 00 Metal Doors and Frames
  08 11 13 Hollow Metal Doors and Frames
  08 11 13.13 Standard Hollow Metal Doors and Frames
  08 11 13.16 Custom Hollow Metal Doors and Frames
  08 11 16 Aluminum Doors and Frames
  08 11 19 Stainless-Steel Doors and Frames
  08 11 23 Bronze Doors and Frames
  08 11 63 Metal Screen and Storm Doors and Frames
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  08 11 73 Sliding Metal Fire Doors
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08 12 00 Metal Frames
  08 12 13 Hollow Metal Frames
  08 12 13.13 Standard Hollow Metal Frames
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  08 12 16 Aluminum Frames
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10 13 00 Directories
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10 14 43 Photoluminescent Signage
10 14 53 Traffic Signage
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10 14 66  Floating Signage
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10 17 16  Telephone Enclosures
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10 21 13.17 Phenolic-Core Toilet Compartments
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| 11 20 00 | Commercial Equipment |

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| 11 28 00 | Office Equipment |

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11 28 13 Computers
11 28 16 Printers
11 28 23 Copiers

11 29 00 Postal, Packaging, and Shipping Equipment
  11 29 23 Packaging Equipment
  11 29 33 Shipping Equipment
  11 29 55 Postal Equipment

11 30 00 Residential Equipment
  11 30 13 Residential Appliances
   11 30 13.13 Residential Kitchen Appliances
   11 30 13.23 Residential Laundry Appliances
  11 30 33 Retractable Stairs
  11 30 34 Residential Ceiling Fans

11 32 00 Unit Kitchens
  11 32 13 Metal Unit Kitchens
  11 32 16 Wood Unit Kitchens
  11 32 19 Plastic-Laminate-Clad Unit Kitchens

11 40 00 Foodservice Equipment

11 41 00 Foodservice Storage Equipment
  11 41 13 Refrigerated Food Storage Cases
  11 41 23 Walk-In Coolers
  11 41 26 Walk-In Freezers
  11 41 33 Foodservice Shelving

11 42 00 Food Preparation Equipment
  11 42 13 Food Preparation Appliances
  11 42 16 Food Preparation Surfaces

11 43 00 Food Delivery Carts and Conveyors
  11 43 13 Food Delivery Carts
  11 43 16 Food Delivery Conveyors

11 44 00 Food Cooking Equipment
  11 44 13 Commercial Ranges
  11 44 16 Commercial Ovens

11 46 00 Food Dispensing Equipment
  11 46 13 Bar Equipment
  11 46 16 Service Line Equipment
  11 46 19 Soda Fountain Equipment
  11 46 23 Coffee and Espresso Equipment
  11 46 83 Ice Machines

11 48 00 Foodservice Cleaning and Disposal Equipment
  11 48 13 Commercial Dishwashers

11 50 00 Educational and Scientific Equipment

11 51 00 Library Equipment
  11 51 13 Automated Book Storage and Retrieval Systems
  11 51 16 Book Depositories
  11 51 19 Book Theft Protection Equipment
  11 51 23 Library Stack Systems
  11 51 23.13 Metal Library Shelving
11 52 00  Audio-Visual Equipment
   11 52 13  Projection Screens
   11 52 13.13  Fixed Projection Screens
   11 52 13.16  Portable Projection Screens
   11 52 13.19  Rear Projection Screens
   11 52 16  Projectors
   11 52 16.13  Movie Projectors
   11 52 16.16  Slide Projectors
   11 52 16.19  Overhead Projectors
   11 52 16.23  Opaque Projectors
   11 52 16.26  Video Projectors
   11 52 19  Players and Recorders
   11 52 23  Audio-Visual Equipment Supports

11 53 00  Laboratory Equipment
   11 53 13  Laboratory Fume Hoods
   11 53 13.13  Recirculating Laboratory Fume Hoods
   11 53 16  Laboratory Incubators
   11 53 17  Laboratory Equipment Washers
   11 53 19  Laboratory Sterilizers
   11 53 23  Laboratory Refrigerators
   11 53 26  Laboratory Freezers
   11 53 29  Laboratory Controlled-Environment Cabinets
   11 53 33  Emergency Safety Appliances
   11 53 43  Service Fittings and Accessories
   11 53 53  Biological Safety Cabinets

11 55 00  Planetarium Equipment
   11 55 13  Planetarium Projectors
   11 55 16  Planetarium Pendulums

11 56 00  Observatory Equipment
   11 56 13  Telescopes
   11 56 16  Telescope Mounts
   11 56 19  Telescope Drive Mechanisms
   11 56 23  Telescope Domes

11 57 00  Vocational Shop Equipment

11 59 00  Exhibit Equipment

11 60 00  Entertainment and Recreation Equipment

11 61 00  Broadcast, Theater, and Stage Equipment
   11 61 13  Acoustical Shells
   11 61 23  Folding and Portable Stages
   11 61 33  Rigging Systems and Controls
   11 61 33.11  Lighting Rigging Systems
   11 61 33.16  Scenery Rigging Systems
   11 61 33.19  Curtain Systems
   11 61 43  Stage Curtains

11 62 00  Musical Equipment
   11 62 13  Bells
   11 62 16  Carillons
   11 62 19  Organs

11 66 00  Athletic Equipment
11 66 13  Exercise Equipment
11 66 23  Gymnasium Equipment
11 66 23.13 Basketball Equipment
11 66 23.23 Volleyball Equipment
11 66 23.33 Interior Tennis Equipment
11 66 23.43 Interior Track and Field Equipment
11 66 23.53 Wall Padding
11 66 23.56 Mat Storage
11 66 43 Interior Scoreboards
11 66 53 Gymnasium Dividers
11 66 53.13 Batting/Golf Cages

11 67 00  Recreational Equipment
11 67 13 Bowling Alley Equipment
11 67 23 Shooting Range Equipment
11 67 33 Climbing Walls
11 67 43 Table Games Equipment
11 67 43.13 Pool Tables
11 67 43.23 Ping-Pong Tables
11 67 53 Game Room Equipment
11 67 53.13 Video Games
11 67 53.23 Pinball Machines

11 68 00  Play Field Equipment and Structures
11 68 13 Playground Equipment
11 68 16 Play Structures
11 68 23 Exterior Court Athletic Equipment
11 68 23.13 Exterior Basketball Equipment
11 68 23.23 Exterior Volleyball Equipment
11 68 23.33 Tennis Equipment
11 68 33 Athletic Field Equipment
11 68 33.13 Football Field Equipment
11 68 33.23 Soccer and Field Hockey Equipment
11 68 33.33 Baseball Field Equipment
11 68 33.43 Track and Field Equipment
11 68 43 Exterior Scoreboards

11 70 00  Healthcare Equipment
11 71 00 Medical Sterilizing Equipment
11 72 00 Examination and Treatment Equipment
11 72 13 Examination Equipment
11 72 53 Treatment Equipment
11 73 00 Patient Care Equipment
11 73 13 Psychiatric Seclusion Room Padding
11 74 00 Dental Equipment
11 75 00 Optical Equipment
11 76 00 Operating Room Equipment
11 77 00 Radiology Equipment
11 78 00 Mortuary Equipment
11 78 13 Mortuary Refrigerators
11 78 16 Crematorium Equipment
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11 82 00  Facility Solid Waste Handling Equipment
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11 90 00  Other Equipment
11 91 00  Religious Equipment
   11 91 13  Baptisteries
11 92 00  Agricultural Equipment
   11 92 13  Milkers
   11 92 16  Stock Feeders
   11 92 19  Stock Waterers
   11 92 23  Agricultural Waste Clean-Up Equipment
11 93 00  Horticultural Equipment
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   11 93 16  Seeders
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   11 93 23  Potting Machines
   11 93 26  Flat Fillers
   11 93 29  Baggers
   11 93 33  Soil Mixers
11 94 00  Veterinary Equipment
11 95 00  Arts and Crafts Equipment
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11 97 00  Security Equipment
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11 98 21 Detention Windows
11 98 23 Detention Window Screens

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12 01 20 Operation and Maintenance of Window Treatments
12 01 30 Operation and Maintenance of Casework
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12 10 00 Art

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12 11 13 Photo Murals
12 11 16 Sculptured Brick Panels
12 11 23 Brick Murals
12 11 26 Ceramic Tile Murals
12 11 33 Trompe l'oeil

12 12 00 Wall Decorations
12 12 13 Commissioned Paintings
12 12 16 Framed Paintings
12 12 19 Framed Prints
12 12 23 Tapestries
12 12 26 Wall Hangings

12 14 00 Sculptures
12 14 13 Carved Sculpture
12 14 16 Cast Sculpture
12 14 19 Constructed Sculpture
12 14 23 Relief Art

12 17 00 Art Glass
12 17 13  Etched Glass
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12 19 00  Religious Art

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12 21 00  Window Blinds
12 21 13  Wood Blinds
12 21 13.13  Metal Horizontal Louver Blinds
12 21 13.23  Wood Horizontal Louver Blinds
12 21 13.33  Plastic Horizontal Louver Blinds
12 21 16  Vertical Louver Blinds
12 21 16.13  Metal Vertical Louver Blinds
12 21 16.23  Wood Vertical Louver Blinds
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12 21 23  Roll-Down Blinds
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12 22 00  Curtains and Drapes
12 22 13  Draperies
12 22 16  Drapery Track and Accessories

12 23 00  Interior Shutters
12 23 13  Wood Interior Shutters

12 24 00  Window Shades
12 24 13  Roller Window Shades
12 24 16  Pleated Window Shades
12 24 16.13  Z-Pleated Window Shades
12 24 16.16  Cellular Shades
12 24 16.19  Roman Shades

12 25 00  Window Treatment Operating Hardware
12 25 09  Window Treatment Control System
12 25 13  Motorized Drapery Rods

12 26 00  Interior Daylighting Devices

12 30 00  Casework

12 31 00  Manufactured Metal Casework
12 31 16  Manufactured Metal Sandwich Panel Casework

12 32 00  Manufactured Wood Casework
12 32 13  Manufactured Wood-Veneer-Faced Casework
12 32 16  Manufactured Plastic-Laminate-Clad Casework

12 34 00  Manufactured Plastic Casework
12 34 16  Manufactured Solid-Plastic Casework
12 34 19  Manufactured Solid Surface Casework

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12 35 30.43  Dormitory Casework
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12 35 39 Commercial Kitchen Casework
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12 35 50.13 Educational Casework
12 35 50.53 Library Casework
12 35 50.56 Built-In Study Carrels
12 35 53 Laboratory Casework
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12 35 53.16 Plastic-Laminate-Clad Laboratory Casework
12 35 53.19 Wood Laboratory Casework
12 35 53.23 Solid-Plastic Laboratory Casework
12 35 59 Display Casework
12 35 70 Healthcare Casework
12 35 70.13 Hospital Casework
12 35 70.16 Nurse Station Casework
12 35 70.19 Exam Room Casework
12 35 70.74 Dental Casework
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12 36 13 Concrete Countertops
12 36 16 Metal Countertops
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12 36 61 Simulated Stone Countertops
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12 41 00 Office Accessories
12 41 13 Desk Accessories

12 42 00 Table Accessories
12 42 13 Ceramics
12 42 16 Flatware
12 42 16.13 Silverware
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12 42 23 Glassware
12 42 26 Table Linens
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12 43 00 Portable Lamps
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12 43 13.13 Desk Lamps
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12 44 00 Bath Furnishings
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12 44 13.16 Bath Towels
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12 45 00 Bedroom Furnishings
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  12 45 13.13 Blankets
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12 46 00 Furnishing Accessories
  12 46 13 Ash Receptacles
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12 48 00 Rugs and Mats
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12 53 00 Retail Furniture
  12 53 83 Custom Retail Furniture
12 54 00 Hospitality Furniture
12 54 13 Hotel and Motel Furniture
12 54 16 Restaurant Furniture
12 54 83 Custom Hospitality Furniture

12 55 00 Detention Furniture
12 55 13 Detention Bunks
12 55 16 Detention Desks
12 55 19 Detention Stools
12 55 23 Detention Tables
12 55 26 Detention Safety Clothes Hooks
12 55 83 Custom Detention Furniture
12 55 86 Detention Control Room Furniture

12 56 00 Institutional Furniture
12 56 23 Religious Furniture
12 56 33 Classroom Furniture
12 56 33.13 Fixed Classroom Tables
12 56 33.23 Classroom Computer Furniture
12 56 39 Lecterns
12 56 43 Dormitory Furniture
12 56 51 Library Furniture
12 56 51.13 Book Shelves
12 56 51.16 Study Carrels
12 56 51.19 Index Card File Cabinets
12 56 52 Audio-Visual Furniture
12 56 53 Laboratory Furniture
12 56 70 Healthcare Furniture
12 56 83 Custom Institutional Furniture
12 56 86 Institutional Control Room Furniture

12 57 00 Industrial Furniture
12 57 13 Welding Benches
12 57 16 Welding Screens
12 57 19 Laser Containment Screens
12 57 83 Custom Industrial Furniture
12 57 86 Industrial Control Room Furniture

12 58 00 Residential Furniture
12 58 13 Couches and Loveseats
12 58 13.13 Futons
12 58 16 Residential Chairs
12 58 16.13 Reclining Chairs
12 58 19 Dining Tables and Chairs
12 58 23 Coffee Tables
12 58 26 Entertainment Centers
12 58 29 Beds
12 58 29.13 Daybeds
12 58 33 Dressers
12 58 33.13 Armoires
12 58 36 Nightstands
12 58 83 Custom Residential Furniture

12 59 00 Systems Furniture
12 59 13 Panel-Hung Component System Furniture
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  13 08 30  Commissioning of Special Structures
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13 13 00  Aquariums

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  13 14 16  Wave Generating Equipment
  13 14 23  Amusement Park Rides

13 15 00  Specialty Element Construction

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40 75 43  Dissolved Oxygen Analyzers
40 75 46  Dissolved Ozone Analyzers
40 75 53  Turbidity Analyzers
40 75 56  Suspended Solids/Sludge Density Analyzers
40 75 59  Liquid Density Analyzers
40 75 63  Monochloramine Analyzers
40 75 66  Nitrogen Analyzers
40 75 69  Phosphorous Analyzers
40 75 73  Particle Counters
40 75 76  Total Organic Carbon Analyzers
40 75 79  Total Organics Analyzers
40 75 83  Hardness Analyzers
40 75 86  Alkalinity Analyzer

40 76 00  Process Gas Analytical Measurement
40 76 05  Continuous Emissions Monitoring Systems
40 76 13  Oxygen Gas Analyzers
40 76 16  Ozone Analyzers
40 76 23  Combustible Gas Monitors
40 76 26  Chlorine Gas Analyzers
40 76 29  Ammonia Gas Analyzers
40 76 33  Hydrogen Sulfide Monitors
40 76 36  Sulfur Dioxide Analyzers
40 76 39  Carbon Dioxide Analyzers
40 76 43  Carbon Monoxide Analyzers
40 76 53  Dewpoint/Moisture Analyzers
40 76 56  Gas Density Analyzers
40 76 63  Flue Gas Analyzers
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40 76 73  Hydrocarbon Analyzers
40 76 76  Gas Chromatograph Analyzers
40 76 79  Vapor Pressure Analyzers
40 76 83  Mass Spectrometers

40 77 00  Position and Motion Measurement
40 77 13  Acceleration Measurement Devices
40 77 16  Proximity Measurement Devices
40 77 19  Vibration Velocity Measurement Devices
40 77 23  Vibration Monitoring Systems
40 77 26  Position, Speed, and Motion Measurement Devices

40 78 00  Panel Mounted Instruments
40 78 13  Indicators and Meters
40 78 16  Indicating Lights
40 78 19  Switches and Push Buttons
40 78 23  Potentiometers and Manual Controllers
40 78 26  Chart Recorders
40 78 33  Annunciators
40 78 43  Single-Loop Controllers
40 78 53  Relays
40 78 56  Isolators, Intrinsically-Safe Barriers, and Surge Suppressors
40 78 59  Power Supplies
40 78 63  Alarm Dialers

40 79 00  Miscellaneous Instruments, Calibration Equipment,
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  40 79 13 Nuclear Mass-Measuring Scales
  40 79 23 Instrument Calibration Equipment
  40 79 26 Instrument Programming Equipment
  40 79 33 Current-to-Pressure Converters
  40 79 36 Voltage-to-Pressure Converters
  40 79 39 Signal Conditioners and Converters
  40 79 43 Deadweight Testers
  40 79 46 Flame Scanners
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40 90 00 Primary Control Devices
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  40 95 00 Rotary Actuators
  40 96 00 Saturable Core Reactors
  40 97 00 Variable Frequency Drives

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41 08 20 Commissioning of Piece Material Handling Equipment
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41 08 60 Commissioning of Mobile Plant Equipment

41 10 00 Bulk Material Processing Equipment

41 11 00 Bulk Material Sizing Equipment

41 11 13 Bulk Material Agglomerators
41 11 16 Bulk Material Air Mill Classifiers
41 11 19 Bulk Material Centrifuges
41 11 23 Bulk Material Crushers
41 11 26 Bulk Material Cyclones
41 11 29 Bulk Material Fluid Bed Separators
41 11 33 Bulk Material Grinders
41 11 36 Bulk Material Homogenizers
41 11 39 Bulk Material Lump Breakers
41 11 43 Bulk Material Mills
41 11 46 Bulk Material Pulverizers
41 11 49 Bulk Material Screens
41 11 53 Bulk Material Shredders
41 11 56 Bulk Material Sieves

41 12 00 Bulk Material Conveying Equipment

41 12 13 Bulk Material Conveyors
41 12 13.13 Airslide Bulk Material Conveyors
41 12 13.16 Auger Bulk Material Conveyors
41 12 13.19 Belt Bulk Material Conveyors
41 12 13.23 Container Bulk Material Conveyors
41 12 13.26 Drag Chain Bulk Material Conveyors
41 12 13.29 Hopper Bulk Material Conveyors
41 12 13.33 Reciprocating Bulk Material Conveyors
41 12 13.36 Screw Bulk Material Conveyors
41 12 13.39 Stacking and Reclai m Bulk Material Conveyors
41 12 13.43 Trough Bulk Material Conveyors
41 12 13.46 Tube Bulk Material Conveyors
41 12 13.49 Vibratory Bulk Material Conveyors
41 12 13.53 Weigh-Belt Bulk Material Conveyors
41 12 16 Bucket Elevators
41 12 19 Pneumatic Conveyors
41 12 19.13 Dense Phase Pneumatic Conveyors
41 12 19.16 Dilute Phase Pneumatic Conveyors

41 13 00 Bulk Material Feeders

41 13 13 Bin Activators/Live Bin Bottoms
41 13 23 Feeders
41 13 23.13 Airlock Bulk Material Feeders
41 13 23.16 Apron Bulk Material Feeders
41 13 23.19 Rotary-Valve Bulk Material Feeders
41 13 23.23 Screw Bulk Material Feeders
41 13 23.26 Vibratory Bulk Material Feeders
41 13 23.29 Volumetric Bulk Material Feeders
41 13 23.33 Weigh Bulk Material Feeders

**41 14 00 Batching Equipment**
- 41 14 13 Bag-Handling Batching Equipment
- 41 14 16 Batch Cars/Transports
- 41 14 19 Batch Hoppers
- 41 14 23 Bulk Bag-Handling Batching Equipment
- 41 14 26 Blenders
- 41 14 29 Drum-Handling Batching Equipment
- 41 14 33 Mixers
- 41 14 36 Weigh Scales

**41 20 00 Piece Material Handling Equipment**

**41 21 00 Conveyors**
- 41 21 13 Automatic Guided Vehicle Systems
- 41 21 23 Piece Material Conveyors
- 41 21 23.13 Belt Piece Material Conveyors
- 41 21 23.16 Container Piece Material Conveyors
- 41 21 23.19 Drag-Chain Piece Material Conveyors
- 41 21 23.23 Hopper Piece Material Conveyors
- 41 21 23.26 Monorail Piece Material Conveyors
- 41 21 23.29 Power and Free Piece Material Conveyors
- 41 21 23.33 Reciprocating Piece Material Conveyors
- 41 21 23.36 Roller Piece Material Conveyors
- 41 21 23.39 Vibratory Piece Material Conveyors
- 41 21 23.43 Walking-Beam Piece Material Conveyors
- 41 21 23.46 Weigh-Belt Piece Material Conveyors
- 41 21 23.53 Postal Conveyors
- 41 21 26 Piece Material Diverter Gates
- 41 21 29 Piece Material Gravity Slides
- 41 21 33 Piece Material Transfer Cars
- 41 21 36 Piece Material Turntables
- 41 21 39 Piece Material Feeders
- 41 21 39.13 Piece Material Vibratory Feeders

**41 22 00 Cranes and Hoists**
- 41 22 13 Cranes
- 41 22 13.13 Bridge Cranes
- 41 22 13.16 Gantry Cranes
- 41 22 13.19 Jib Cranes
- 41 22 13.23 Mobile Cranes
- 41 22 13.26 Tower Cranes
- 41 22 13.29 Specialty Cranes
- 41 22 23 Hoists
- 41 22 23.13 Fixed Hoists
- 41 22 23.16 Portable Hoists
- 41 22 23.19 Monorail Hoists
- 41 22 23.23 Specialty Hoists
- 41 22 33 Derricks

**41 23 00 Lifting Devices**
- 41 23 13 Clamps
- 41 23 16 Grabs
- 41 23 19 Hooks
- 41 23 23 Lifts
41 23 26  Slings
41 23 29  Spreader Bars/Beams
41 23 33  Tongs

**41 24 00  Specialty Material Handling Equipment**
41 24 13  Aeration Devices
41 24 16  Bin Vibrators
41 24 19  Dehydrators
41 24 23  Hydrators
41 24 26  Hydraulic Power Systems
41 24 29  Lubrication Systems
41 24 33  Magnetic Separators
41 24 36  Metal Detectors
41 24 39  Railcar Movers
41 24 43  Turnheads/Distributors
41 24 46  Sorting Machines
41 24 46.13  Postal Sorting Machines

**41 30 00  Manufacturing Equipment**

**41 31 00  Manufacturing Lines and Equipment**
41 31 13  Manufacturing Lines
41 31 13.13  Assembly Lines
41 31 13.16  Casting Lines
41 31 13.19  Coating Lines
41 31 13.23  Converting Lines
41 31 13.26  Disassembly Lines
41 31 13.29  Extrusion Lines
41 31 13.33  Machining Lines
41 31 13.36  Molding Lines
41 31 13.39  Finishing/Painting Lines
41 31 13.43  Painting Lines
41 31 13.46  Pickling Lines
41 31 13.49  Plating Lines
41 31 13.53  Polishing Lines
41 31 13.56  Press Lines
41 31 13.59  Rolling/Calendaring Lines
41 31 13.63  Web Processing Lines
41 31 16  Pick and Place Systems
41 31 19  Manufacturing-Line Robots
41 31 23  Specialty Assembly Machines

**41 32 00  Forming Equipment**
41 32 13  Bending Equipment
41 32 16  Blow-Molding Equipment
41 32 19  Brake-Forming Equipment
41 32 23  Cold-Forming Equipment
41 32 26  Die-Casting Equipment
41 32 29  Drawing Equipment
41 32 33  Electroforming Equipment
41 32 36  Forging Equipment
41 32 39  Extruding Equipment
41 32 43  Metal-Spinning Equipment
41 32 46  Piercing Equipment
41 32 49  Powder Metal-Forming Equipment
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41 35 13.23 Rotary Dies
41 35 13.26 Rule Dies
41 35 33 Molds

**41 36 00 Assembly and Testing Equipment**

41 36 13 Applicators
41 36 13.13 Adhesive Applicators
41 36 13.16 Lubricant Applicators
41 36 13.19 Sealer Applicators
41 36 16 Fixtures and Jigs
41 36 19 Joining Equipment
41 36 19.13 Adhesive Joining Equipment
41 36 19.16 Arc-Welding Equipment
41 36 19.19 Brazing Equipment
41 36 19.23 Resistance-Welding Equipment
41 36 19.26 Riveting Equipment
41 36 19.29 Sintering Equipment
41 36 19.33 Soldering Equipment
41 36 23 Cutting Equipment
41 36 23.13 Cutting Torches
41 36 23.16 High-Pressure Water Cutting Equipment
41 36 23.19 Laser Cutting Equipment
41 36 23.23 Plasma Cutting Equipment
41 36 26 Process Tools
41 36 26.13 Air Process Tools
41 36 26.16 Electric Process Tools
41 36 26.19 Hydraulic Process Tools
41 36 26.23 Manual Process Tools
41 36 29 Manufacturing Measurement and Testing Equipment
41 36 29.13 Gages, Rules, and Blocks
41 36 29.16 Penetrant Measurement and Testing Equipment
41 36 29.19 Laser Measurement and Testing Equipment
41 36 29.23 Magnaflux Measurement and Testing Equipment
41 36 29.26 Optical Comparators
41 36 29.29 Profilometers
41 36 29.33 Radiograph Measurement and Testing Equipment
41 36 29.36 Surface Tables
41 36 29.39 Ultrasonic Measurement and Testing Equipment
41 36 29.43 Test Weigh Scales

**41 40 00 Container Processing and Packaging**

**41 41 00 Container Filling and Sealing**

41 41 13 Bulk Container Fillers/Packers
41 41 16 Container Cappers
41 41 19 Container Fillers
41 41 19.13 Bag Fillers
41 41 19.16 Box Fillers
41 41 19.19 Bottle Fillers
41 41 23 Container Sealers

**41 42 00 Container Packing Equipment**

41 42 13 Box Packing Equipment
41 42 13.13 Box Makers
41 42 13.16 Box Packers
41 42 16 Bulk Material Loaders
41 42 16.13 Container Bulk Material Loaders
41 42 16.23 Truck Bulk Material Loaders
41 42 16.26 Railcar Bulk Material Loaders
41 42 16.29 Ship Bulk Material Loaders
41 42 16.33 Barge Bulk Material Loaders
41 42 19 Carton Packers
41 42 23 Carton Sealers
41 42 26 Carton Shrink Wrappers
41 42 29 Carton Stackers

41 43 00 Shipping Packaging
41 43 13 Banding/Strapping Equipment
41 43 16 Barcode Equipment
41 43 16.13 Barcode Readers
41 43 16.16 Barcode Printers
41 43 19 Labeling Equipment
41 43 23 Pallet Stacking/Wrapping Equipment

41 50 00 Material Storage
41 51 00 Automatic Material Storage
41 51 13 Automatic Storage/Automatic Retrieval Systems

41 52 00 Bulk Material Storage
41 52 16.13 Concrete Flat-Bottom Silos
41 52 16.16 Concrete Masonry Flat-Bottom Silos
41 52 16.23 Concrete Cone-Bottom Silos
41 52 16.26 Concrete Masonry Cone-Bottom Silos
41 52 16.29 Steel Cone-Bottom Silos
41 52 19 Bulk Materials Storage Tanks
41 52 19.13 Stationary Bulk Materials Storage Tanks
41 52 19.33 Mobile Bulk Materials Storage Tanks
41 52 41 Pneumatic, Block-Distributed Materials Fluidizing System for Flat-Bottom Bins and Silos
41 52 43 Aerated Trough Materials Fluidizing System for Flat-Bottom Bins and Silos
41 52 46 Pad-Mounted Aerated Disc Materials Fluidizing System for Cone-Bottom Bins and Silos

41 53 00 Storage Equipment and Systems
41 53 13 Storage Cabinets
41 53 16 Container Storage Systems
41 53 19 Flat Files
41 53 23 Storage Racks
41 53 23.13 Mobile Storage Racks
41 53 26 Mezzanine Storage Systems

41 60 00 Mobile Plant Equipment
41 61 00 Mobile Earth Moving Equipment
41 61 13 Backhoes
41 61 16 Bulldozers
41 61 19 Compactors
41 61 23 Excavators
41 61 26 Graders
41 61 29 Payloaders
41 61 33 Trenchers

41 62 00 Trucks
41 62 13 Cement Mixer Trucks
41 62 16 Dump Trucks
41 62 19 Flatbed Trucks
41 62 23 Forklift Trucks
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41 62 29 Tank Trucks
41 63 00 General Vehicles
  41 63 13 Bicycles
  41 63 16 Carts
  41 63 19 Maintenance Vehicles
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41 64 00 Rail Vehicles
  41 64 13 Locomotives
  41 64 13.13 Diesel Locomotives
  41 64 13.23 Electric Locomotives
  41 64 16 Mobile Railcar Movers
41 65 00 Mobile Support Equipment
  41 65 13 Mobile Air Compressors
  41 65 16 Mobile Generators
  41 65 19 Mobile Welders
41 66 00 Miscellaneous Mobile Equipment
  41 66 13 Mobile Boring and Drilling Rigs
  41 66 16 Mobile Lifts and Cherrypickers
  41 66 19 Mobile Paving Equipment
  41 66 23 Mobile Sweepers/Vacuums
41 67 00 Plant Maintenance Equipment
  41 67 13 Plant Lube Oil System
  41 67 16 Plant Fall Protection Equipment
  41 67 19 Plant Safety Equipment
  41 67 23 Plant Maintenance Tools
  41 67 26 Plant Maintenance Washing Equipment
42 00 00 Process Heating, Cooling, and Drying Equipment
42 01 00 Operation and Maintenance of Process Heating, Cooling, and Drying Equipment
  42 01 10 Operation and Maintenance of Process Heating Equipment
  42 01 20 Operation and Maintenance of Process Cooling Equipment
  42 01 30 Operation and Maintenance of Process Drying Equipment
42 05 00 Common Work Results for Process Heating, Cooling, and Drying Equipment
  42 05 05 Selective Demolition for Process Heating, Cooling, and Drying Equipment
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43 11 12 Integrally Geared Single Stage Centrifugal Blowers
43 11 13 Separately Geared Single Stage Centrifugal Blowers
43 11 14 Direct Drive Integral Shaft Single Stage Centrifugal Blowers
43 11 17 Horizontally Split Multistage Centrifugal Blowers
43 11 18 Vertically Split Multistage Centrifugal Blowers
43 11 19 Centrifugal Fans
43 11 23 Axial Blowers
43 11 26 Axial Fans
43 11 31 Rotary Helical Screw Blowers
43 11 33 Rotary Lobe Blowers
43 11 34 Regenerative Rotary Blowers
43 11 36 Rotary Vane Blowers
43 11 41 Gas-handling Venturi Jet Pumps
43 11 43 Gas-handling Vacuum Pumps
43 11 46 Gas Boosters
43 12 00 Gas Compressors
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43 12 13 Diagonal or Mixed-flow Compressors
43 12 16 Axial-flow Compressors
43 12 33 Single-acting Reciprocating Compressors
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43 23 00  Dry Location Liquid Pumps
43 23 13  Overhung Horizontal Centrifugal Pumps
43 23 13.13  Overhung Flexibly-coupled Horizontal Axial Flow Centrifugal Pumps
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<td>Overhung Flexibly-coupled, Magnetic Drive, Sealless Vertical Centrifugal Pumps</td>
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43 23 79.34 Controlled Volume Vertical Hydraulically-Coupled Diaphragm Simplex Reciprocating Pumps
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43 24 00 Suspended Liquid Pumps
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43 24 13 Vertically Suspended Single-Casing Discharge-through-column Centrifugal Pumps
43 24 13.13 Vertically Suspended Single-Casing Discharge-through-column Diffuser Centrifugal Pumps
43 24 13.23 Vertically Suspended Single-Casing Discharge-through-column Volute Centrifugal Pumps
43 24 13.33 Vertically Suspended Single-Casing Discharge-through-column Axial Flow Centrifugal Pumps
43 24 16 Vertically Suspended Single-casing Separate Discharge (Sump) Centrifugal Pumps
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43 24 21.23 Vertically Suspended Double-Casing Volute Centrifugal Pumps
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43 25 00 Submersible/Immersible Liquid Pumps
43 25 13 Overhung Close-Coupled Submersible Centrifugal Pumps
43 25 13.13  Overhung Close-Coupled Submersible Diffuser Centrifugal Pumps
43 25 13.23  Overhung Close-Coupled Submersible Volute Centrifugal Pumps
43 25 50   Positive Displacement Submersible Liquid Pumps

43 26 00   Specialized Liquid Pumps
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43 26 30.29  Between-Bearings Impeller Two-Stage Regenerative Turbine Pumps
43 26 40   Regenerative Turbine Pumps
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43 27 13   Cyclonic Liquid Filters
43 27 16   Centrifugal Horizontal Pressure Leaf Liquid Filters
43 27 19   Press Liquid Filters
43 27 23   Liquid Bag Filters
43 27 33   Mechanically Cleaned Liquid Filters
43 27 43   Tubular Backwashing Liquid Filters
43 27 53   Vacuum Belt Liquid Filters
43 27 63   Woven Media Liquid Filters
43 27 63.13  Disc Liquid Filters
43 27 63.23  Rotating Drum Liquid Filters
43 27 63.33  Layer Liquid Filters
43 27 63.43  Candle Liquid Filters
43 27 63.53  Vertical Leaf Liquid Filters
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43 30 00   Gas and Liquid Purification Equipment

43 31 00   Gas and Liquid Purification Filtration Equipment
43 31 13   Gas and Liquid Purification Filters
43 31 13.13  Activated Carbon-Gas and Liquid Purification Filters
43 31 13.16  Gas and Liquid Purification Filter Presses
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43 31 13.23  Membrane Diaphragm Gas and Liquid Purification Filters
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43 32 13.13  Anion-Gas and Liquid Purification Process Beds
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43 32 69 Chemical Feed Systems
43 32 73 Ozonation Equipment
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43 40 00 Gas and Liquid Storage

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43 41 13 Welded Steel Tanks
43 41 13.13 Glass-lined Welded Steel Tanks
43 41 13.23 Rubber-lined Welded Steel Tanks
43 41 13.33 Epoxy-lined Welded Steel Tanks
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43 41 23 Stainless Steel Tanks
43 41 26 Aluminum Tanks
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43 41 41 Polyvinyl Chloride Tanks
43 41 43 Polyethylene Tanks
43 41 45 Fiberglass Reinforced Plastic Tanks
43 41 53 Wood Stave Tanks
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43 41 73 Ceramic Tanks
43 41 83 Non-metallic Specialty Tanks

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43 42 21 Welded Steel Pressure Tanks
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43 42 33 Stainless Steel Pressure Tanks
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44 00 00 Pollution and Waste Control Equipment

44 01 00 Operation and Maintenance of Pollution and Waste Control Equipment
44 01 10 Operation and Maintenance of Air Pollution Control
44 01 20 Operation and Maintenance of Noise Pollution Control
44 01 30 Operation and Maintenance of Odor Control Equipment
44 01 40 Operation and Maintenance of Water Pollution Control Equipment
44 01 50  Operation and Maintenance of Solid Waste Control and Reuse
44 01 60  Operation and Maintenance of Waste Thermal Processing Equipment

44 05 00  Common Work Results for Pollution and Waste Control Equipment
44 05 05  Selective Demolition for Pollution and Waste Control Equipment

44 06 00  Schedules for Pollution and Waste Control Equipment
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44 06 20  Schedules for Noise Pollution Control
44 06 30  Schedules for Odor Control Equipment
44 06 40  Schedules for Water Pollution Control Equipment
44 06 50  Schedules for Solid Waste Control and Reuse
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44 08 00  Commissioning of Pollution and Waste Control Equipment
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44 08 20  Commissioning of Noise Pollution Control
44 08 30  Commissioning of Odor Control Equipment
44 08 40  Commissioning Water Pollution Control Equipment
44 08 50  Commissioning Solid Waste Control and Reuse
44 08 60  Commissioning of Waste Thermal Processing Equipment

44 10 00  Air Pollution Control

44 11 00  Particulate Control Equipment
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44 11 19  Atmospheric Air Quality Monitoring Equipment
44 11 20  Gravitational Separators
44 11 31  Venturi Scrubbing Equipment
44 11 33  Spray Tower/Chamber Scrubbing Equipment
44 11 36  Cyclone Scrubbing Equipment
44 11 51  Pulse Jet Fabric Filtration Equipment
44 11 53  Reverse Flow Fabric Filtration Equipment
44 11 54  Shake/Deflate Fabric Filtration Equipment
44 11 56  Cartridge Filtration Equipment
44 11 59  Disposable Dry Filtration Equipment
44 11 71  Cyclone Dust Collection Equipment
44 11 73  Multicyclone Dust Collection Equipment
44 11 76  Mist Elimination Equipment
44 11 93  Wet Electrostatic Precipitator Equipment
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44 13 00  Gaseous Air Pollution Control Equipment
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44 13 13  Packed Tower/Chamber Absorption Equipment
44 13 14  Tray Tower Absorption Equipment
44 13 16  Jet Bubbling Reactor Equipment
44 13 17  Venturi Absorption Equipment
44 13 20  Vacuum Extraction Systems
44 13 31  Powdered Injection Adsorption Equipment
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<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>44 13 34</td>
<td>Fixed Bed Adsorption Equipment</td>
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<td>44 13 36</td>
<td>Rotary Bed Adsorption Equipment</td>
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<td>44 13 39</td>
<td>Radial Bed Adsorption Equipment</td>
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<td>44 13 51</td>
<td>Thermal Oxidation Equipment</td>
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<td>44 13 53</td>
<td>Catalytic Oxidation Equipment</td>
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<td>44 13 56</td>
<td>Flare Oxidation Equipment</td>
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<td>44 13 59</td>
<td>Claus Sulfur Recovery Equipment</td>
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<tr>
<td>44 13 71</td>
<td>Thermal Reduction Equipment</td>
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<td>44 13 73</td>
<td>Catalytic Reduction Equipment</td>
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<td>44 13 76</td>
<td>Non-catalytic Reduction Equipment</td>
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<td>44 13 77</td>
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<tr>
<td>44 13 81</td>
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<td>44 13 83</td>
<td>Contact Condensing Equipment</td>
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<tr>
<td>44 13 86</td>
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<td>44 13 89</td>
<td>Biofilter Media</td>
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<td>44 13 96</td>
<td>Fixed Bed Biofilter Equipment</td>
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<td>44 13 97</td>
<td>Fixed Bed Bioscrubbing Equipment</td>
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### 44 20 00 Noise Pollution Control

<table>
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<tbody>
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<td>Fixed Noise Abatement Barriers</td>
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<td>44 21 16</td>
<td>Flexible Noise Abatement Barriers</td>
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<td>44 21 23</td>
<td>Noise Pollution Silencers</td>
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<td>44 21 26</td>
<td>Frequency Cancellers</td>
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### 44 30 00 Odor Control

<table>
<thead>
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<tr>
<td>44 31 11</td>
<td>Wet Chemical Packed Tower Odor Control Equipment</td>
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<td>44 31 13</td>
<td>Chemical Mist System Odor Control Equipment</td>
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<td>44 31 16</td>
<td>Activated Carbon Adsorption Odor Control Equipment</td>
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<td>44 31 19</td>
<td>Packaged Odor Control Systems</td>
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<td>44 31 21</td>
<td>Odor Control Biofilters</td>
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<td>44 31 28</td>
<td>Odor Control Biofilter Aeration Floor</td>
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<td>44 31 29</td>
<td>Odor Control Biofilter Media</td>
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<td>44 31 31</td>
<td>Odor Control Biotrickling Filter Equipment</td>
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<td>44 31 33</td>
<td>Odor Control Bioscrubbing Equipment</td>
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<tr>
<td>44 31 41</td>
<td>Odor Control Vapor Combustion Equipment</td>
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<tr>
<td>44 31 83</td>
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</table>

### 44 32 00 Odor Dispersing and Masking/Counteracting Equipment

<table>
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<tr>
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<tbody>
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<td>Odor Dispersing Exhaust Stacks</td>
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<td>44 32 13.13</td>
<td>Fan-equipped Odor Dispersing Exhaust Stacks</td>
</tr>
<tr>
<td>44 32 23</td>
<td>Odor Masking/Counteracting Equipment</td>
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### 44 40 00 Water Pollution Control Equipment

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>44 41 13</td>
<td>Spill Cleanup</td>
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<tr>
<td>44 41 21</td>
<td>Containment Booms</td>
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<tr>
<td>44 41 23</td>
<td>Marine Spill Accessories</td>
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</table>
44 41 31  Spill Decks
44 41 32  Drum Containment Units
44 41 33  Containment Pallets
44 41 34  Prefabricated Spill Containment Curbing
44 41 36  Prefabricated Spill Containment Berms
44 41 37  Prefabricated Berms for Tank Containment
44 41 41  Collapsible Storage Tanks

44 50 00  Solid Waste Control and Reuse

44 51 00  Solid Waste Collection, Transfer, and Hauling Equipment

44 51 13  Solid Waste Portable Containers
44 51 16  Solid Waste Stationary Containers
44 51 23  Solid Waste Transfer Trailers

44 53 00  Solid Waste Processing Equipment

44 53 11  Live-floor Storage Bins
44 53 13  Refuse Cranes and Accessories
44 53 16  Solid Waste Screens
44 53 21  Car Crushers
44 53 23  Shears and Guillotines
44 53 26  Shredders and Grinders
44 53 27  Perforators
44 53 31  Bag Breakers
44 53 33  Granulators
44 53 36  Crumb Rubber Systems
44 53 39  Briquetters
44 53 41  Vibratory Table Separation Equipment
44 53 43  Ferrous Metals Separation Equipment
44 53 44  Eddy Current Separators
44 53 46  Single-stream Materials Separation Equipment
44 53 49  Ballistic Separators
44 53 51  Air Classifying Equipment
44 53 52  Air Knives
44 53 53  Optical Sorting Equipment
44 53 56  Packaged Sorting Stations
44 53 59  Packaged Reclaimer Stations
44 53 61  Solid Waste Compactors
44 53 63  Solid Waste Baling Equipment
44 53 64  Bagging Equipment
44 53 66  Wrappers
44 53 73  Solid Waste Liquid Extraction Equipment

44 55 00  Composting Equipment

44 55 11  Electromechanical Composters
44 55 13  Compost Screening Equipment
44 55 16  Compost Shredding Equipment
44 55 23  Compost Pile Turning Equipment
44 55 26  Compost Mixing and Blending Equipment
44 55 33  In-vessel Composting Equipment
44 55 43  Compost Pad System
44 55 73  Compost Liquid Extraction Equipment
44 60 00  Waste Thermal Processing Equipment
44 61 00  Waste-to-Energy Plants
  44 61 13  Waste Receiving, Management, and Feed Equipment
  44 61 16  Mass Burn Combustion Equipment
  44 61 23  Refuse-derived Fuel Feed Equipment
  44 61 26  Refuse-derived Fuel Combustion Equipment
  44 61 29  Modular Combustion System Equipment
  44 61 31  Ash Handling Equipment
  44 61 33  Post-combustion Ferrous Metals Recovery Equipment
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44 61 00  Waste Thermal Processing Equipment
44 62 00  Fluidized Bed Combustion Equipment
44 63 00  Rotary Kiln Incinerators
44 64 00  Gasification Equipment
  44 64 13  Counter-current Fixed Bed Gasification Equipment
  44 64 23  Co-current Fixed Bed Gasification Equipment
  44 64 33  Fluidized Bed Gasification Equipment
  44 64 43  Entrained Flow Gasification Equipment
  44 64 53  Plasma Arc Gasification Equipment
44 65 00  Pyrolysis Equipment
44 66 00  Hazardous Waste and Medical Waste Incinerators
44 67 00  Heat Recovery Equipment for Waste Thermal Processing
44 68 00  Synthesis Gas Cleanup and Handling Equipment
45 00 00  Industry-Specific Manufacturing Equipment
45 05 00  Common Work Results for Industry-Specific Manufacturing Equipment
  45 05 05  Selective Demolition for Industry-Specific Manufacturing Equipment
45 08 00  Commissioning of Industry-Specific Manufacturing Equipment
45 11 00  Oil and Gas Extraction Equipment
  45 11 01  Operation and Maintenance of Oil and Gas Extraction Equipment
  45 11 06  Schedules for Oil and Gas Extraction Equipment
  45 11 10  User-Defined Oil and Gas Extraction Equipment
45 12 00  User-Defined Oil and Gas Extraction Equipment
45 13 00  Mining Machinery and Equipment
  45 13 01  Operation and Maintenance of Mining Machinery and Equipment
  45 13 06  Schedules for Mining Machinery and Equipment
  45 13 10  User-Defined Mining Machinery and Equipment
45 14 00  User-Defined Mining Machinery and Equipment
45 15 00  Food Manufacturing Equipment
  45 15 01  Operation and Maintenance of Food Manufacturing Equipment
  45 15 06  Schedules for Food Manufacturing Equipment
  45 15 10  User-Defined Food Manufacturing Equipment
45 16 00  User-Defined Food Manufacturing Equipment
45 17 00  Beverage and Tobacco Manufacturing Equipment
   45 17 01  Operation and Maintenance of Beverage and Tobacco Manufacturing Equipment
   45 17 06  Schedules for Beverage and Tobacco Manufacturing Equipment
   45 17 10  User-Defined Beverage and Tobacco Manufacturing Equipment
45 18 00  User-Defined Beverage and Tobacco Manufacturing Equipment
45 19 00  Textiles and Apparel Manufacturing Equipment
   45 19 01  Operation and Maintenance of Textiles and Apparel Manufacturing Equipment
   45 19 06  Schedules for Textiles and Apparel Manufacturing Equipment
   45 19 10  User-Defined Textiles and Apparel Manufacturing Equipment
45 20 00  User-Defined Textiles and Apparel Manufacturing Equipment
45 21 00  Leather and Allied Product Manufacturing Equipment
   45 21 01  Operation and Maintenance of Leather and Allied Product Manufacturing Equipment
   45 21 06  Schedules for Leather and Allied Product Manufacturing Equipment
   45 21 10  User-Defined Leather and Allied Product Manufacturing Equipment
45 22 00  User-Defined Leather and Allied Product Manufacturing Equipment
45 23 00  Wood Product Manufacturing Equipment
   45 23 01  Operation and Maintenance of Wood Product Manufacturing Equipment
   45 23 06  Schedules for Wood Product Manufacturing Equipment
   45 23 10  User-Defined Wood Product Manufacturing Equipment
45 24 00  User-Defined Wood Product Manufacturing Equipment
45 25 00  Paper Manufacturing Equipment
   45 25 01  Operation and Maintenance of Paper Manufacturing Equipment
   45 25 06  Schedules for Paper Manufacturing Equipment
   45 25 10  User-Defined Paper Manufacturing Equipment
45 26 00  User-Defined Paper Manufacturing Equipment
45 27 00  Printing and Related Manufacturing Equipment
   45 27 01  Operation and Maintenance of Printing and Related Manufacturing Equipment
   45 27 06  Schedules for Printing and Related Manufacturing Equipment
   45 27 10  User-Defined Printing and Related Manufacturing Equipment
45 28 00  User-Defined Printing and Related Manufacturing Equipment
45 29 00  Petroleum and Coal Products Manufacturing Equipment
   45 29 01  Operation and Maintenance of Petroleum and Coal Products Manufacturing Equipment
   45 29 06  Schedules for Petroleum and Coal Products Manufacturing Equipment
   45 29 10  User-Defined Petroleum and Coal Products Manufacturing Equipment
45 30 00  User-Defined Petroleum and Coal Products Manufacturing Equipment

45 31 00  Chemical Manufacturing Equipment
  45 31 01  Operation and Maintenance of Chemical Manufacturing Equipment
  45 31 06  Schedules for Chemical Manufacturing Equipment
  45 31 10  User-Defined Chemical Manufacturing Equipment

45 32 00  User-Defined Chemical Manufacturing Equipment

45 33 00  Plastics and Rubber Manufacturing Equipment
  45 33 01  Operation and Maintenance of Plastics and Rubber Manufacturing Equipment
  45 33 06  Schedules for Plastics and Rubber Manufacturing Equipment
  45 33 10  User-Defined Plastics and Rubber Manufacturing Equipment

45 34 00  User-Defined Plastics and Rubber Manufacturing Equipment

45 35 00  Nonmetallic Mineral Product Manufacturing Equipment
  45 35 01  Operation and Maintenance of Nonmetallic Mineral Product Manufacturing Equipment
  45 35 06  Schedules for Nonmetallic Mineral Product Manufacturing Equipment
  45 35 10  User-Defined Nonmetallic Mineral Product Manufacturing Equipment

45 36 00  User-Defined Nonmetallic Mineral Product Manufacturing Equipment

45 37 00  Primary Metal Manufacturing Equipment
  45 37 01  Operation and Maintenance of Primary Metal Manufacturing Equipment
  45 37 06  Schedules for Primary Metal Manufacturing Equipment
  45 37 10  User-Defined Primary Metal Manufacturing Equipment

45 38 00  User-Defined Primary Metal Manufacturing Equipment

45 39 00  Fabricated Metal Product Manufacturing Equipment
  45 39 01  Operation and Maintenance of Fabricated Metal Product Manufacturing Equipment
  45 39 06  Schedules for Fabricated Metal Product Manufacturing Equipment
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45 40 00  User-Defined Fabricated Metal Product Manufacturing Equipment

45 41 00  Machinery Manufacturing Equipment
  45 41 01  Operation and Maintenance of Machinery Manufacturing Equipment
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  45 41 10  User-Defined Machinery Manufacturing Equipment

45 42 00  User-Defined Machinery Manufacturing Equipment

45 43 00  Computer and Electronic Product Manufacturing Equipment
  45 43 01  Operation and Maintenance of Computer and Electronic Product Manufacturing Equipment
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| 45 43 10 | User-Defined Computer and Electronic Product Manufacturing Equipment |
| 45 44 00 | **User-Defined Computer and Electronic Product Manufacturing Equipment** |
| 45 45 00 | **Electrical Equipment, Appliance, and Component Manufacturing Equipment** |
| 45 45 01 | Operation and Maintenance of Electrical Equipment, Appliance, and Component Manufacturing Equipment |
| 45 45 06 | Schedules for Electrical Equipment, Appliance, and Component Manufacturing Equipment |
| 45 45 10 | User-Defined Electrical Equipment, Appliance, and Component Manufacturing Equipment |
| 45 46 00 | **User-Defined Electrical Equipment, Appliance, and Component Manufacturing Equipment** |
| 45 47 00 | **Transportation Manufacturing Equipment** |
| 45 47 01 | Operation and Maintenance of Transportation Manufacturing Equipment |
| 45 47 06 | Schedules for Transportation Manufacturing Equipment |
| 45 47 10 | User-Defined Transportation Manufacturing Equipment |
| 45 48 00 | **User-Defined Transportation Manufacturing Equipment** |
| 45 49 00 | **Furniture and Related Product Manufacturing Equipment** |
| 45 49 01 | Operation and Maintenance of Furniture and Related Product Manufacturing Equipment |
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| 45 50 00 | **User-Defined Furniture and Related Product Manufacturing Equipment** |
| 45 52 00 | User-Defined Other Manufacturing Equipment |
| 45 53 00 | Biopharmaceutical Manufacturing Equipment |
| 46 00 00 | **Water and Wastewater Equipment** |
| 46 01 00 | Operation and Maintenance of Water and Wastewater Equipment |
| 46 01 07 | Operation and Maintenance of Packaged Treatment Equipment |
| 46 01 20 | Operation and Maintenance of Preliminary Treatment Equipment |
| 46 01 30 | Operation and Maintenance of Chemical Feed Equipment |
| 46 01 40 | Operation and Maintenance of Clarification and Mixing Equipment |
| 46 01 50 | Operation and Maintenance of Secondary Treatment Equipment |
| 46 01 60 | Operation and Maintenance of Advanced Treatment Equipment |
| 46 01 70 | Operation and Maintenance of Residuals Handling and Treatment |
| 46 05 00 | **Common Work Results for Water and Wastewater Equipment** |
| 46 05 05 | Selective Demolition for Water and Wastewater Equipment |
| 46 06 00 | **Schedules for Water and Wastewater Equipment** |
| 46 06 07 | Schedules for Packaged Treatment Equipment |
46 06 20  Schedules for Preliminary Treatment Equipment
46 06 30  Schedules for Chemical Feed Equipment
46 06 40  Schedules for Clarification and Mixing Equipment
46 06 50  Schedules for Secondary Treatment Equipment
46 06 60  Schedules for Advanced Treatment Equipment
46 06 70  Schedules for Residuals Handling and Treatment

46 07 00  Packaged Water and Wastewater Treatment Equipment

46 07 13  Packaged Water Treatment Equipment
46 07 53  Packaged Wastewater Treatment Equipment

46 08 00  Commissioning of Water and Wastewater Equipment

46 08 07  Commissioning of Packaged Treatment Equipment
46 08 20  Commissioning of Preliminary Treatment Equipment
46 08 30  Commissioning of Chemical Feed Equipment
46 08 40  Commissioning of Clarification and Mixing Equipment
46 08 50  Commissioning of Secondary Treatment Equipment
46 08 60  Commissioning of Advanced Treatment Equipment
46 08 70  Commissioning of Residuals Handling and Treatment

46 20 00  Water and Wastewater Preliminary Treatment Equipment

46 21 00  Screening Equipment

46 21 11  Climber-type Bar Screens
46 21 13  Chain-and-Rake Bar Screens
46 21 16  Flexible Rake Bar Screens
46 21 17  Catenary Bar Screens
46 21 19  Continuous Belt Screens
46 21 23  Cylindrical Bar Screens
46 21 26  Step Screens
46 21 33  Rotary Drum Screens
46 21 39  Spiral Screens
46 21 43  Band Screens
46 21 46  Disc Screens
46 21 51  Traveling Water Screens
46 21 53  Perforated Plate Screens
46 21 56  Wedge Wire Screens
46 21 57  Element Screens
46 21 71  Trash Raking Equipment
46 21 73  Screenings Washing and Compacting Equipment
46 21 76  Vacuum Screenings Conveying Equipment
46 21 79  Screenings Storage Containers
46 21 83  Septage Receiving Equipment

46 23 00  Grit Removal and Handling Equipment

46 23 13  Chain-and-Bucket Grit Removal Equipment
46 23 16  Chain-and-Flight Grit Removal Equipment
46 23 23  Vortex Grit Removal Equipment
46 23 27  Cyclone Degritters
46 23 33  Aerated Grit Removal Equipment
46 23 43  Inline Baffled Grit Removal Equipment
| 46 23 53 | Traveling Bridge Grit Removal Equipment |
| 46 23 63 | Grit Classifying and Washing Equipment |
| 46 23 66 | Grit Storage Containers |

| 46 24 00 | Grinding and Shredding Equipment |
| 46 24 13 | Macerators |
| 46 24 16 | Comminutors |
| 46 24 23 | Inline Grinders |
| 46 24 33 | Open-channel Grinders |
| 46 24 36 | Modular Grinding-Screening-Compacting Equipment |

| 46 25 00 | Oil and Grease Separation and Removal Equipment |
| 46 25 13 | Coalescing Oil-Water Separators |
| 46 25 16 | API Oil-Water Separators |
| 46 25 23 | Grease Traps |
| 46 25 33 | Dissolved Air Flotation Grease and Oil Separation Equipment |
| 46 25 41 | Helical Scum Skimming and Removal Equipment |
| 46 25 43 | Tipping Trough Scum Skimming and Removal Equipment |
| 46 25 46 | Chain and Flight Scum Collection and Removal Equipment |
| 46 25 47 | Floating Scum Skimming and Removal Equipment |

| 46 30 00 | Water and Wastewater Chemical Feed Equipment |
| 46 31 00 | Gas Chemical Feed Equipment |
| 46 31 11 | Chlorine Gas Feed Equipment |
| 46 31 13 | Sulfur Dioxide Gas Feed Equipment |
| 46 31 16 | Ammonia Gas Feed Equipment |
| 46 31 23 | Gas Storage, Weighing, and Leak Detection Equipment |
| 46 31 26 | Emergency Gas Treatment Systems |
| 46 31 33 | Chlorine Dioxide Reactors |
| 46 31 43 | Carbon Dioxide Gas Feed Equipment |
| 46 31 53 | Ozone Generating and Feed Equipment |
| 46 31 56 | Liquid Oxygen Storage and Feed Equipment |
| 46 31 59 | Cleaning Requirements for Oxygen Service |
| 46 31 83 | Gas Chemical Feed Accessories and Safety Equipment |

| 46 33 00 | Liquid Chemical Feed Equipment |
| 46 33 13 | Sodium Hypochlorite Generating Equipment |
| 46 33 23 | Liquid Chemical Weighing Equipment |
| 46 33 33 | Polymer Blending and Feed Equipment |
| 46 33 41 | Liquid Chemical Feed System Coordination and Integration |
| 46 33 42 | Diaphragm-type Metering Pumps |
| 46 33 44 | Peristaltic Metering Pumps |
| 46 33 46 | Progressing Cavity Metering Pumps |
| 46 33 48 | Lobe Metering Pumps |
| 46 33 53 | Drum Pumps |
| 46 33 66 | Liquid Chemical Transfer Pumps |
| 46 33 73 | Liquid Chemical Diffusers |
| 46 33 83 | Liquid Chemical Feed Accessories and Safety Equipment |

| 46 36 00 | Dry Chemical Feed Equipment |
| 46 36 11 | Dry Chemical Feed System Coordination and Integration |
| 46 36 13 | Storage Silos |
46 36 23  Dry Chemical Weighing Equipment
46 36 33  Volumetric Feed Equipment
46 36 36  Gravimetric Feed Equipment
46 36 43  Lime Slaking Equipment
46 36 53  Chemical Tablet Feeding Equipment
46 36 83  Dry Chemical Feed Accessories and Safety Equipment

46 40 00  Water and Wastewater Clarification and Mixing Equipment

46 41 00  Mixing Equipment
46 41 11  Rapid Mixers
46 41 13  Inline Blender-type Rapid Mixers
46 41 16  Induction-type Rapid Mixing Equipment
46 41 17  Inline Static Mixers
46 41 21  Jet Mixing Equipment
46 41 23  Submersible Mixers
46 41 26  Floating Mechanical Mixers
46 41 27  Paddle Mixers
46 41 29  Pin Mixers
46 41 31  Vertical Reel Flocculation Equipment
46 41 33  Horizontal Reel Flocculation Equipment
46 41 34  Vertical Turbine Flocculation Equipment
46 41 36  Walking-beam Flocculation Equipment
46 41 38  Horizontal Oscillating Flocculation Equipment
46 41 41  Top-entering Tank Mixers
46 41 43  Side-entry Tank Mixers
46 41 46  Portable Tank Mixers

46 43 00  Clarifier Equipment
46 43 11  Chain-and-Flight Clarifier Equipment
46 43 14  Traveling Bridge Clarifier Equipment
46 43 16  Differential Head Clarifier Equipment
46 43 18  Oscillating Scraper-type Clarifier Equipment
46 43 21  Circular Clarifier Equipment
46 43 53  Solids Contact Clarifier Equipment
46 43 61  Floculating Clarifier, Pulsating Sludge Blanket Type
46 43 63  Dissolved Air Flotation Equipment for Water Treatment
46 43 66  Ballasted High-rate Clarifier Equipment
46 43 67  High rate Clarification/Thickening Equipment
46 43 73  Tube Settlers
46 43 76  Inclined Plate Settlers

46 46 00  Sediment Removal Equipment
46 46 13  Tipping Sediment Flushing Tanks
46 46 16  Flushing Gates
46 46 23  Water Cannon
46 46 26  Nozzle Systems

46 50 00  Water and Wastewater Secondary Treatment Equipment

46 51 00  Air and Gas Diffusion Equipment
46 51 11 Fixed Mechanical Aerators
46 51 13 Floating Mechanical Aerators
46 51 16 Submersible Aspirating Aerator Equipment
46 51 17 Jet Aeration Equipment
46 51 21 Coarse Bubble Diffusers
46 51 23 Swing-type Channel Aeration Equipment
46 51 26 Shear Box Diffusers
46 51 31 Flexible Membrane Tube Diffusers
46 51 33 Flexible Membrane Disc Diffusers
46 51 36 Ceramic Disc Fine Bubble Diffusers
46 51 43 Floating Membrane Diffusers
46 51 46 Membrane Diffusers
46 51 53 Cascading Aerators
46 51 63 Pure-oxygen Generating Equipment

46 53 00 Biological Treatment Systems
46 53 13 Rotating Biological Contactors
46 53 23 Trickling Filter Rotary Distributor Equipment
46 53 24 Trickling Filter Media
46 53 26 Bio-towers
46 53 33 Moving-bed Biological Reactors
46 53 36 Integrated Fixed-film Activated Sludge Equipment
46 53 41 Intermittent Sand Filters for Wastewater Treatment
46 53 43 Deep-bed Denitrification Filters
46 53 46 Biologically Activated Filters
46 53 49 Membrane Biological Reactors
46 53 53 Sequencing Batch Reactors
46 53 61 Oxidation Ditch Equipment
46 53 63 Vertical Loop Reactors

46 60 00 Water and Wastewater Advanced Treatment Equipment

46 61 00 Filtration Equipment
46 61 13 Filter Media
46 61 16 Filter Surface Wash Agitators
46 61 17 Filter Air Scour Equipment
46 61 19 Wash Water Troughs
46 61 21 Pressure Filters
46 61 23 Gravity Filters
46 61 26 High-rate Sand Filters
46 61 29 Traveling Bridge Filters
46 61 33 Microfiltration and Ultrafiltration Membrane Equipment
46 61 41 Disc Cloth Filters
46 61 43 Rotary Drum Cloth Filters
46 61 46 Automatic Backwash Cloth Filter Equipment
46 61 53 Cartridge Filters
46 61 63 Bag Filters
46 61 73 Automatic Straining Equipment

46 63 00 Demineralization Equipment
46 63 11 Ion-exchange Vessel Media
46 63 13 Mixed Bed Ion-exchange Vessel Systems
46 63 16  Packed Bed Ion-exchange Vessel Systems
46 63 17  Electrodialysis Reversal Equipment
46 63 23  Reverse-Osmosis and Nanofiltration Membrane Equipment
46 63 31  Multiple-effect Distillation Equipment
46 63 32  Water Vapor Compression Distillation Equipment
46 63 33  Desalination Mechanical Vapor Compression Equipment
46 63 34  Desalination Thermal Vapor Compression Equipment
46 63 36  Desalination Multi-stage Flash Equipment
46 63 41  Desalination Falling Film Evaporators
46 63 43  Desalination Rising Film Evaporators
46 63 53  Desalination Forced-circulation Crystallizing Equipment
46 63 63  Desalination Spray Dry Evaporation Equipment
46 63 73  Demineralization Energy Recovery Equipment

46 66 00  **Ultraviolet Equipment**
46 66 13  Closed-vessel Low-pressure/Low-intensity Ultraviolet Treatment Equipment
46 66 16  Closed-vessel Low-pressure/High-intensity Ultraviolet Treatment Equipment
46 66 23  Closed-vessel Medium-pressure Ultraviolet Treatment Equipment
46 66 53  Open-channel Low-pressure/Low-intensity Ultraviolet Treatment Equipment
46 66 56  Open-channel Low-pressure/High-intensity Ultraviolet Treatment Equipment
46 66 63  Open-channel Medium-pressure Ultraviolet Treatment Equipment

46 70 00  **Water and Wastewater Residuals Handling and Treatment**

46 71 00  **Residuals Thickening Equipment**
46 71 13  Circular Gravity Thickeners
46 71 16  Gravity Belt Thickeners
46 71 23  Dissolved Air Flotation Thickening Equipment
46 71 33  Rotary Drum Thickening Equipment
46 71 36  Centrifuge Thickening Equipment
46 71 43  Disc Thickeners
46 71 46  Thickening Screw Press
46 71 53  Scum Concentrator Equipment

46 73 00  **Residuals Stabilization**
46 73 11  Radial Beam Fixed Digester Covers
46 73 12  Dual Deck Truss-type Fixed Digester Covers
46 73 14  Radial Beam Floating Digester Covers
46 73 16  Dual Deck Truss-type Floating Digester Covers
46 73 17  Radial Beam Floating Gas-holding Digester Covers
46 73 18  Dual Deck Truss-type Floating Gas-holding Digester Covers
46 73 19  Digester Appurtenances
46 73 21  Aerobic Digester Aeration Equipment
46 73 24  Autothermal Thermophilic Aerobic Digestion Equipment
46 73 26  Egg-shaped Digesters
46 73 31  External Draft Tube Digester Mixing System
46 73 32  Internal Draft Tube Digester Mixing System
46 73 33  Confined Gas Mixing System
46 73 34  Unconfined Gas Mixing System
46 73 41  Digester Heating Equipment
46 73 63  Residuals Pasteurization Equipment

46 76 00  Residuals Dewatering Equipment
46 76 13  Vacuum Filters
46 76 21  Belt Filter Presses
46 76 23  Plate-and-Frame Filter Presses
46 76 26  Rotary Presses
46 76 27  Screw Presses
46 76 33  Dewatering Centrifuges
46 76 53  Belt Dryers
46 76 60  Direct-heat Residuals Drying Equipment
46 76 70  Indirect-heat Residuals Drying Equipment

46 78 00  Thermal Treatment of Residuals
46 78 13  Multiple-hearth Sludge Incinerators
46 78 23  Fluidized-bed Sludge Incinerators
46 78 33  Ash Handling Equipment
46 78 41  Recuperative Air Preheating Equipment
46 78 46  Regenerative Thermal Oxidizers
46 78 47  Waste Heat Recovery Boilers
46 78 49  Waste Heat Recovery Heat Exchangers
46 78 73  Thermal Oxidation Equipment

48 00 00  Electrical Power Generation
48 01 00  Operation and Maintenance for Electrical Power Generation
    48 01 10  Operation and Maintenance of Electrical Power Generation Equipment
    48 01 70  Operation and Maintenance of Electrical Power Generation Testing

48 05 00  Common Work Results for Electrical Power Generation
    48 05 05  Selective Demolition for Electrical Power Generation

48 06 00  Schedules for Electrical Power Generation
    48 06 10  Schedules for Electrical Power Generation Equipment
    48 06 70  Schedules for Electrical Power Generation Testing

48 08 00  Commissioning of Electrical Power Generation

48 09 00  Instrumentation and Control for Electrical Power Generation

48 10 00  Electrical Power Generation Equipment
48 11 00  Fossil Fuel Plant Electrical Power Generation Equipment
    48 11 13  Fossil Fuel Electrical Power Plant Boilers
    48 11 16  Fossil Fuel Electrical Power Plant Condensers
    48 11 19  Fossil Fuel Electrical Power Plant Steam Turbines
    48 11 23  Fossil Fuel Electrical Power Plant Gas Turbines
    48 11 26  Fossil Fuel Electrical Power Plant Generators

48 12 00  Nuclear Fuel Plant Electrical Power Generation
Equipment
48 12 13 Nuclear Fuel Reactors
48 12 13.13 Nuclear Fuel Fission Reactors
48 12 13.16 Nuclear Fuel Fusion Reactors
48 12 23 Nuclear Fuel Electrical Power Plant Steam Generators
48 12 26 Nuclear Fuel Electrical Power Plant Condensers
48 12 29 Nuclear Fuel Electrical Power Plant Turbines
48 12 33 Nuclear Fuel Electrical Power Generators
48 13 00 Hydroelectric Plant Electrical Power Generation Equipment
48 13 13 Hydroelectric Power Plant Water Turbines
48 13 16 Hydroelectric Power Plant Electrical Power Generators
48 14 00 Solar Energy Electrical Power Generation Equipment
48 14 13 Solar Energy Collectors
48 14 13.13 Amorphous Solar Energy Collectors
48 14 13.16 Plate Cell Solar Energy Collectors
48 14 13.19 Vacuum Tube Solar Energy Collectors
48 15 00 Wind Energy Electrical Power Generation Equipment
48 15 13 Wind Turbines
48 15 16 Wind Energy Electrical Power Generators
48 16 00 Geothermal Energy Electrical Power Generation Equipment
48 16 13 Geothermal Energy Heat Pumps
48 16 16 Geothermal Energy Condensers
48 16 19 Geothermal Energy Steam Turbines
48 16 23 Geothermal Energy Electrical Power Generators
48 17 00 Electrochemical Energy Electrical Power Generation Equipment
48 17 13 Electrical Power Generation Batteries
48 18 00 Fuel Cell Electrical Power Generation Equipment
48 18 13 Electrical Power Generation Fuel Cells
48 18 16 Hydrogen Control Equipment
48 19 00 Electrical Power Control Equipment
48 19 13 Electrical Power Generation Battery Charging Equipment
48 19 16 Electrical Power Generation Inverters
48 19 19 Electrical Power Generation Solar Tracking Equipment
48 19 23 Electrical Power Generation Transformers
48 19 26 Electrical Power Generation Voltage Regulators
48 30 00 Combined Heat and Power Generation
48 31 00 Combustion Combined Heat and Power Generation
48 31 13 Natural Gas-Fueled Combined Heat and Power Generation
48 31 16 Biomass-Fueled Combined Heat and Power Generation
48 70 00 Electrical Power Generation Testing
48 71 00 Electrical Power Generation Test Equipment
48 71 13 Electrical Power Generation Corona Test Equipment
48 71 16 Electrical Power Generation Current Test Equipment
48 71 19  Electrical Power Generation Power Test Equipment
48 71 23  Electrical Power Generation Resistance Test Equipment
48 71 26  Electrical Power Generation Voltage Test Equipment